Bristol Water For All

Our plan to deliver excellent water experiences

Revised April 2019

BRISTOL WATER

Appointee plan

A1
Bristol Water For All

REVISED

A2
Customer summary

Wholesale controls

B1
Water resources

B2
Water network plus

Retail controls

B3
Residential retail

Supporting evidence

C1
Engagement, communication and research
NEW EVIDENCE
—
Engagement Summary

C2
Addressing affordability and vulnerability

C3
Delivering outcomes for customers
REVISED

C4
Bristol Water... Clearly Resilient
REVISED

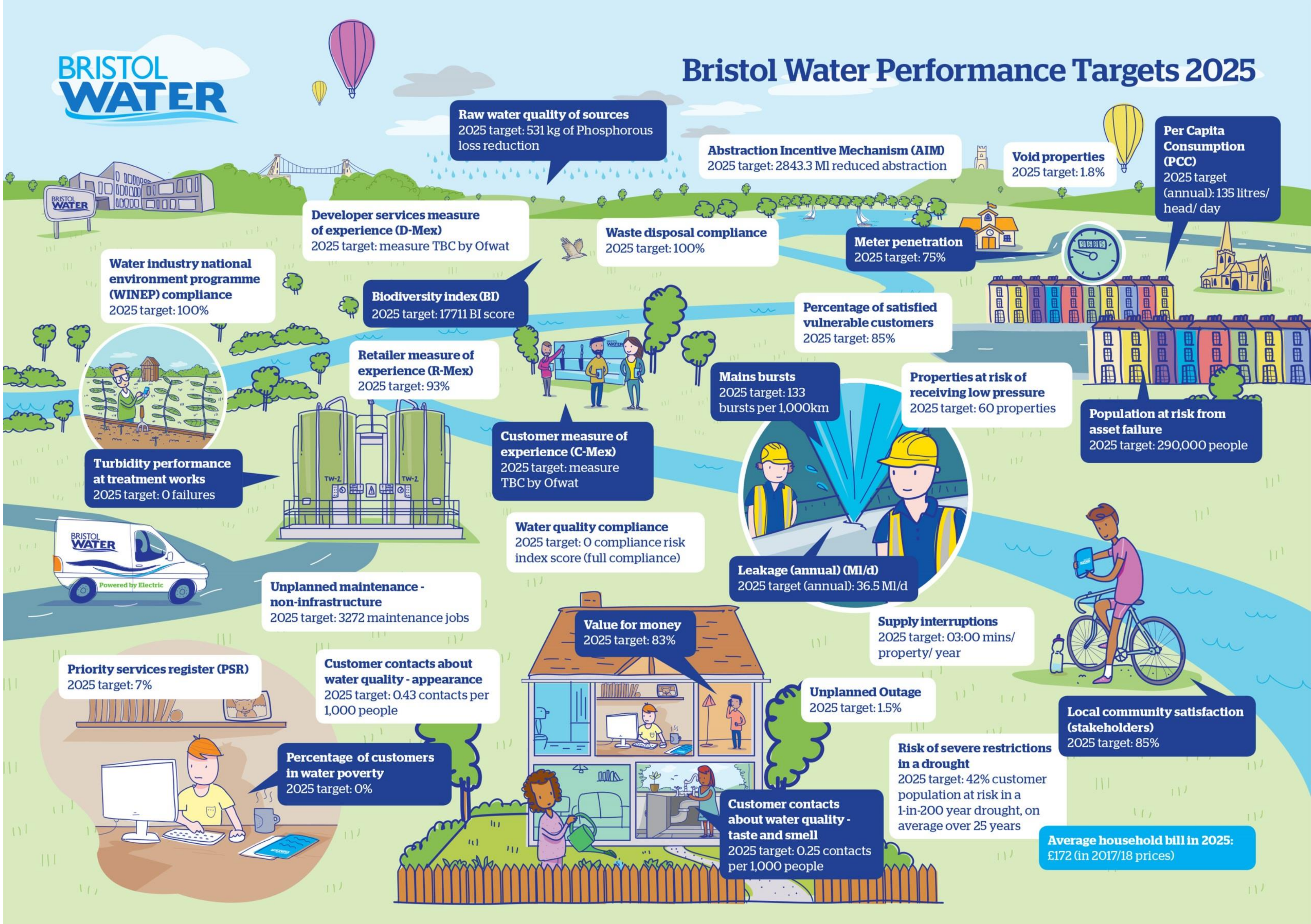
C5
Cost and efficiency
REVISED
—
Investment cases

C6
Financeability, risk & return, and affordability
REVISED

C7
Track record of delivery
REVISED

C8
Securing trust, confidence and assurance

REVISED
Board Assurance Statement


BRISTOL WATER
Bristol Water Performance Targets 2025
Raw water quality of sources
2025 target: 531 kg of Phosphorous loss reduction
Abstraction Incentive Mechanism (AIM)
2025 target: 2843.3 Ml reduced abstraction
Void properties
2025 target: 1.8%
Per Capita Consumption (PCC)
2025 target (annual): 135 litres/ head/ day
Developer services measure of experience (D-Mex)
2025 target: measure TBC by Ofwat
Waste disposal compliance
2025 target: 100%
Meter penetration
2025 target: 75%
Water industry national environment programme (WINEP) compliance
2025 target: 100%
Biodiversity index (BI)
2025 target: 17711 BI score
Percentage of satisfied vulnerable customers
2025 target: 85%
Retailer measure of experience (R-Mex)
2025 target: 93%
Mains bursts
2025 target: 133 bursts per 1,000km
Properties at risk of receiving low pressure
2025 target: 60 properties
Population at risk from asset failure
2025 target: 290,000 people
Turbidity performance at treatment works
2025 target: 0 failures
Customer measure of experience (C-Mex)
2025 target: measure TBC by Ofwat
Water quality compliance
2025 target: 0 compliance risk index score (full compliance)
Leakage (annual) (Ml/d)
2025 target (annual): 36.5 Ml/d
Unplanned maintenance - non-infrastructure
2025 target: 3272 maintenance jobs
Value for money
2025 target: 83%
Supply interruptions
2025 target: 03:00 mins/ property/ year
Priority services register (PSR)
2025 target: 7%
Customer contacts about water quality - appearance
2025 target: 0.43 contacts per 1,000 people
Unplanned Outage
2025 target: 1.5%
Local community satisfaction (stakeholders)
2025 target: 85%
Percentage of customers in water poverty
2025 target: 0%
Risk of severe restrictions in a drought
2025 target: 42% customer population at risk in a 1-in-200 year drought, on average over 25 years
Customer contacts about water quality - taste and smell
2025 target: 0.25 contacts per 1,000 people
Average household bill in 2025:
£172 (in 2017/18 prices)
TW-2
TW-2
Powered by Electric

1 Introduction to our revised plan

This document sets out our revised plan and response to Ofwat's initial assessment of our September 2018 plan (IAP).

The Board of Bristol Water has carefully considered all the points of feedback from Ofwat and sought to understand best practice from across the industry to inform our response.

Our revised plan is captured in a number of documents, including updates to sections of our original submission with supporting evidence. We have responded to both Ofwat's IAP feedback and its specific list of actions. We have provided a detailed mapping from these comments and actions to our response within our revised plan. These documents do not seek to entirely replace our original submission, but provide a summary of changes to our plan and additional evidence in a way which we hope is helpful to Ofwat and other stakeholders.

Our original submission in September was ambitious and challenging and was deeply rooted in customer research and engagement. We have listened to Ofwat's and others feedback and made changes to our plan where additional evidence has led us to refine our approach. Remaining at the heart of our plan, are excellent experiences in everything that we do, whether for customers in the services they receive, or for the community through the wider benefits for society and the environment that our activities deliver. Our plan remains true to our journey of development with our customers and stakeholders, informed by high quality and far-reaching engagement.

Since our original submission in September 2018, we have not relented in our drive to transform our business and to find innovative and industry leading ways to build trust with our customers, including the publication of our social contract. Our "trust beyond water" vision continues to be driven by the Board.

Our improvements to customer service and high levels of overall customer satisfaction have recently been recognised by the Institute of Customer Service through its ServiceMark accreditation and we have also been nominated for water company of the year at the Water Industry Achievement Awards.

The process to transform our business to a resilient, customer focussed, trusted and efficient company with a long term focus has been led by the Bristol Water Board. We are pleased that the IAP recognised there were many high quality elements to our original plan. Our revised plan continues to deliver the things that matter most to our customers.

We understand Ofwat's concerns about the deliverability of our challenging plan. We are a business that has changed significantly in the past four years and one which continues to change at pace. This change is being driven by a focus on our people and the cultures and values that they bring. As our transformation has continued, we can now provide further evidence of the impact of changes to date and our plans for the future. We stay true to our original plan and the promises which we have made to our customers. We also stay true to our company roots of having a wider social purpose, delivering a benefit to society beyond our core role, and in doing so fulfilling our vision of 'trust beyond water'.

1.1 The format of our revised plan

To respond to the challenges within the IAP, we have considered Ofwat's wider challenges, as well as the specific actions within the IAP. We have submitted evidence in revised versions of the following plan documents:

A1 – Bristol Water for All (main narrative)

C3 – Delivering outcomes for customers

C4 – Bristol Water…Clearly Resilient

C5 – Cost and efficiency

C6 – Financeability, risk and return and affordability

C7 – Track record of delivery

We provide a Board Assurance Statement in support of our revised plan.

In addition, we have updated the data tables which are impacted by our revised plan and provided other supporting evidence files as mapped in '**Our guide to our plan**'.

In the revised document '**Our guide to our plan'** we have provided a mapping from both the IAP test area assessment comments and from our IAP actions to our revised plan and have included a summary of how we have responded in each case.

OUR PROMISES TO MEET OUR CUSTOMERS' PRIORITIES

We will give you a bill which you can afford

Our plan sees average bills reduce by 4.5% and, at least until 2025, stay below the level they were in 2015. Our social tariffs eliminate water poverty today and all customers at risk will get the support they need.

You get the best possible experience every time you need us

We are already the top water company, and we aim to become the top performing utility as measured by the UK Customer Satisfaction Index.

Saving water before developing new supplies

We will reduce leakage by 15% and help customers to reduce water consumption by 5%.

Trust beyond water – helping you to improve your communities and the local environment

We work in partnership with the local community to benefit customers and the environment. If we don't deliver to the satisfaction of the community and customers, our innovative "***Bristol Water for All***" approach will hold us to account.

Keeping top quality water flowing to your tap

We achieve this already, often even during extreme events. Our plan increases protection further to over 540,000 people through being able to supply their water from multiple routes, and to reduce all supply interruptions by 85%, our forecast of the industry top quartile.

Section A1: Bristol Water for All

Customer priorities and promises at the heart of our plan

OUR PLAN

Our business plan sets out how we plan to meet the priorities of our customers, through promises and outcomes. It's not just what we deliver that's important to our purpose though but also the way that we deliver, reflecting our role as part of the local communities we serve.

OUR AMBITION

Our purpose drives our long-term ambitions for Bristol Water.

This is reflected in our vision and mission.

OUR FOUNDING PURPOSE AND HISTORY

We were founded in 1846 with a strong social purpose to improve public health and to supply water to all, not just the wealthy. We stay true to these roots today.

BRISTOL WATER OUR PURPOSE

To have a positive impact on society and the environment – building trust beyond water

OUR SOCIAL CONTRACT

Our social contract sets out how we are accountable for the social promises we make as we deliver our purpose. Our social contract will evolve as society does and we learn from experience, so through a set of mechanisms and initiatives we build partnerships and relationships to make it meaningful to our customers and stakeholders.

OUR PEOPLE, OUR VALUES, OUR CULTURE

Throughout our history, the people at Bristol Water have been proud to go the extra mile to deliver for our customers, our communities and for each other. Our purpose is important to the people who work at Bristol Water and is reflected in our values.

A LOCAL APPROACH

We benefit from close connections to our communities which means that we can provide excellent experiences. Working in partnership with those who share our purpose builds trust in us as a company that is part of the community.

2 Executive summary

Overview

Throughout the process of developing our business plan we started and finished with our customers' priorities, putting our customers at the heart of our plans for the future of their local water company.

Our customer consultation has been thorough, comprehensive and high quality and our planning process included what we believe to be the most visible draft business plan consultation undertaken by any company at PR19. This approach has continued in reviewing Ofwat's Initial Assessment of Plans (IAP) and developing our revised plan. The IAP recognised the quality of our customer research engagement and that a robust, balanced and proportionate evidence base had resulted in a clear line of sight to the outcomes our plan will deliver for customers.

We have carefully reviewed the IAP documents and have sought additional information and clarity from Ofwat where required, to make sure that we have understood the challenge fully. We have also worked to understand best practice from other company plans and to challenge ourselves on our approach.

In many cases we have responded to Ofwat's feedback by providing additional information to support our approach or by providing further clarity on how the elements of our plan are interlinked. In other cases, where the balance of new evidence supports a different approach, we have responded by making carefully considered changes to our plan.

Where appropriate, we have sought additional customer insight to inform our process of challenge and refinement. Our plan continues to have a high level of acceptability at 93% of customers surveyed and therefore we remain confident that we have retained the support of our customers.

Our original plan was clear that we had made a series of hard choices in preparing our plan and it was important to us to consider Ofwat's specific feedback and wider observations carefully. We have responded to all the IAP company actions to provide additional evidence to support our plan, re-presenting links between related components of our plan where appropriate to demonstrate how the elements of our plan fit together to deliver a high quality plan. In other cases, where the balance of new evidence supports a different approach, we have responded by making carefully considered changes to our plan. We are confident that our revised plan is the right one for our customers and our promises to customers remain unaltered. We also retain the view that our plan is resilient, as this is reflected in our key outcomes.

A fundamental part of our corporate and financial resilience is our social contract, which takes a systems-based approach to our long term delivery of excellent experiences to our customers and communities, as part of the social purpose that Bristol Water has always had. We have based our response to the IAP around demonstrating the progress in resetting Bristol Water to deliver this social purpose.

Key changes in our revised plan

Key changes we have made in our revised plan are:

- **Reduced totex:** We have reduced our totex forecast by £9m from £503m in our original plan to £494m in our revised plan. Forecast expenditure is 5% below total expenditure over 2015 to 2020. We have included Traffic Management Act expenditure within our revised plan as this cost risk has now crystallised, together with the impact of the Autumn 2018 budget in increasing tax. These increases are more than offset by further efficiencies.
- **Reduced CSA:** We have reduced our Company Specific Adjustment (CSA) premium from by 7bps from 45 basis points (bps) to 38bps. This reduces appointee cost of capital (real RPI) from 2.7% to 2.6 %. There is a high level of customer support for the CSA, at 87% of customers surveyed. With expert support we demonstrate the benefits that Bristol Water provides to Ofwat's ability to make comparisons, a value of c£20m (within a wide range) which exceeds the £6m cost of the uplift. We recognise this is an area of methodology which we will need to discuss further with Ofwat.
- **Additional Performance Commitments:** We have included two new Performance Commitments – percentage of customers on our priority services register and our retailer measure of experience (R-Mex)
- **Rebalanced ODIs**: We have made changes to Outcome Delivery Incentives (ODIs) for a number

of performance commitments in response to Ofwat's challenges, tested through further customer research. We have rebalanced incentives towards water quality Compliance Risk Index performance, as this is the measure most representative of our customers' top priority as well as being an all-encompassing measure of asset health and resilience.

- **Removal of deadbands**: We have removed a significant number of deadbands, exposing us to greater incentives for performance.
- **Reduced penalties**: We have reduced AMP6 penalties due to improved performance, including improved leakage performance despite challenging weather.

Through these changes we have been able to absorb other changes since our original submission which are an upward driver to bills (such as tax changes and the impact of the Traffic Management Act). Bill levels over AMP6 are almost identical to our revised plan, but the level of reduction from AMP6 level is slightly smaller due to a drop in the average bill level in 2019/20. Bills in AMP7 have been smoothed in response to additional customer research.

Average household bills are forecast to reduce by c4% in 2020 from £182 to £175 (CPIH 2017/18 prices), which would be 5% prior to taking into account the early pass back of £1.1m of leakage penalties in 2019-20. By 2025, bills at £172 are c5% below 2019-20 levels before inflation (6.5% before the early leakage penalty return). Bills at the start of 2026-2030 are expected to increase by c2% (without considering any bill smoothing) due to the ending of revenue adjustments from AMP6 over 2020-25. Broadly, bills are expected to stay stable over 2020-2030 after the initial reduction in 2020. Bill percentage changes from the original plan have been updated to reflect a revised starting point, but propose bills over 2020-25 remain the same.

Our level of ambition

We have stayed true to our mandate from our customers to set ourselves ambitious targets, delivering the service improvements they value, at the same time as reducing their bills. By 2025 we will reduce leakage from our network by a further 15%, reduce interruptions to supply by 85%[1] and improve resilience of water supplies for over 45% of our communities, at the same time as reducing average bills by 5%. Bills will remain below 2015 levels, even after inflation. Our plan will also eliminate water poverty, and will support all customers who may be at risk of it, including through our social tariffs. We have re-tested this plan with customers and our combination of service improvements and bill reduction continues to have the support of our customers and stakeholders, with 93% acceptability.

It is true that delivering our plan will be challenging. Our plan is built on a comprehensive Transformation Programme which responds to the lessons of past performance. These lessons include our response to the challenges to resilience which resulted in us missing significant targets such as supply interruptions and leakage at times during AMP6, and the increase in customer complaints that occurred. Progress in delivering our transformation plans has continued and we can provide Ofwat with confidence that our plan will be delivered, and that customers will be protected as we learn from experience. In particular recent progress to note includes:

- We are likely to perform better than our previous leakage forecasts over 2018/19 and 2019/20. This reduces the forecast AMP6 leakage penalty by £2.4m.
- We provide case studies from recent operational resilience events, such as major bursts, to explain how the stretching supply interruptions target will be delivered. Recent improvements mean that even major bursts in difficult locations are now being resolved without significant supply interruptions.
- We are in the process of implementing an innovative full network control and monitoring upgrade, which takes the learning points from past events to combine a number of innovative projects, such as our "Calm DMA" work with Imperial College and our "NOEM" network energy and supply control approach. This delivers totex efficiencies, together with improved network control and monitoring and enables delivery of the stretching leakage, supply interruptions and water appearance targets, amongst others. Our confidence in this delivery

[1] By 2025, beyond the upper quartile target Ofwat have asked us to adopt in line with IAP policy decisions.

has allowed us to reshape ODI incentives towards water quality compliance, as this most closely reflects sharper incentives for asset health with customers' top priorities, as well as the existing incentives for leakage and supply interruptions.

- Customer complaints are falling as our operational and service performance improves. This in part reflects operational incidents being avoided, but also reflects the impact of our improved operational response. The key network maintenance contract which modernises our approach is on track to be in place in Autumn 2019.

We continue to improve our operational performance, our asset management capability, use of technology, and the way we collaborate with our supply chain and other partners. We are confident that this transformation will deliver our promises to our customers. It is inevitable with an ambitious plan that we will not always hit every target – but our plan includes effective performance measurement and correction mechanisms and commitments to transparency that will protect customers as we improve. Our Board is focused on ensuring that Bristol Water meets the promises our plan sets out for our customers.

We continue to improve the level of transparency and confidence in the information that we produce, which was recently recognised through a move from 'prescribed' to 'targeted' status in Ofwat's company monitoring framework.

Trust beyond water

We have continued to work to deliver our vision of providing a benefit to our communities beyond the provision of a safe and reliable water supply. Our roots and our history remain important to us. We are very conscious that Bristol Water was established 173 years ago with a clear social purpose – to improve public health by providing water to the whole city of Bristol, rather than the wealthy few. Our founders were ahead of their time in recognising the link between clean water and social wellbeing, not only in terms of public health but also the ability to work and financial wellbeing.

In February 2018, we set out our ambition to stay true to these roots,[2] recognising our continued privileged position as a trusted monopoly provider of an essential service and the opportunity that this provides to have a positive impact on the wellbeing of society. Our customers and stakeholders continue to tell us that they expect our actions to go beyond those of a responsible private company and we understand that accountability for this positive impact is a key issue aligned to the level of trust which our customers and stakeholders place in us.

Our vision is: *Trust beyond water – providing excellent customer experiences.*

In our original plan, we pledged to develop a social contract as a framework to formalise the delivery of our wider social purpose. We made a commitment to deliver demonstrable community benefit with high levels of customer satisfaction, transparent engagement and financial consequences should we fail to meet these expectations. It is the Bristol Water Board who own the purpose, culture and values that we espouse in our social contract, and it is through this foundation that we will deliver our plan.

Our purpose is: *To have a positive impact on the lives of our customers, our communities, our colleagues and the environment, beyond the delivery of pure and reliable water.*

We have continued to develop our social contract in collaboration with our customers and stakeholders. In January 2019 we set out our social purpose and our social contract and we have also worked with ICS Consulting to produce a thought provoking document on the ideology of a social contract and questions of implementation. Our objective is to work with our customers and our local and national stakeholders to continue to refine our social contract and the programme of initiatives which sit beneath it. We also welcome the opportunity to contribute to the emerging national debate on the role of a social contract for essential service providers such as the water industry. It is our view that a social contract is something which a company should undertake willingly and which is founded on

[2] Bristol Water…Clearly, our Long Term Ambition for Excellent Water Experiences, February 2018.

a shared local connection to the customers and communities which a company serves.

The aims of our social contract go beyond the delivery of wider societal benefits, to include a framework for customer, stakeholder and employee engagement and participation, as well as a framework for fairness, transparency and accountability for delivering our social purpose. Our Bristol Water Challenge Panel (BWCP) will play a key role in overseeing the social contract programme and for ensuring that the viewpoints of our customers and stakeholders are understood and represented. Jim McAuliffe, one of our independent non-executive directors (INEDs) with close community links, will engage directly with the BWCP in relation to our social contract and ensure its appropriate representation with our full Board.

Our social contract will contribute to social wellbeing and local community resilience. It will also contribute to the continued high level of trust which our customers place in us.

Our social contract approach and local stakeholder engagement, together with delivery of the innovative outcome benefits that arise, allows us to innovate in the way we deliver and are accountable for national policy requirements, whilst also reflecting the local needs of those we serve.

We describe the link between our social contract and our strategy for resilience in our **revised C4 document** of our detailed response.

A plan which continues to be driven by our customers

We have continued to engage with our customers since our original submission and have undertaken specific additional engagement to inform our response to the IAP.

Our latest research has:

- Confirmed that our customers support the design of our outcome incentives, both individually and the overall magnitude of the proposals (including our £2.5m annual bill impact cap)
- Confirmed the strong acceptability of the plan, and very strong support for the small company uplift to the cost of debt
- Confirmed that our resilience, community and environmental ODIs, including the outperformance incentives, fully reflect customer and local stakeholder views
- Confirmed that a social contract that builds on the basic requirements of water delivery and its regulation, and which reflects a local shared connection to society which is part of systems-based resilience, is what is needed for customers to distinguish between a good company and an excellent one.

We have clarified our intention that the voluntary sharing mechanism within our social contract, although it was linked to the additional cost of debt, is not dependent on Ofwat's PR19 decisions on this element of our plan.

Our priorities to customers remain unchanged

Our priorities and promises to customers remain unaltered, with our customer engagement and line of sight to plan outcomes recognised as high quality within the IAP. Our five priorities are:

A bill you can afford – Our customers want us to reduce their bills and make them affordable, at the same time as improving our services. They support a plan that reduces bills by 5% and provides support to all eligible customers so that no customers remain in, or fall into water poverty.

Top quality water supplies – Our customers want us to reduce the number of times they have to contact us about the taste and appearance of water at their tap. They want our network to be more resilient to failures. When things go wrong, they want rapid and personal response from us to reduce the duration and frequency of interruptions to their supplies.

Trust beyond water – Our customers want us to go beyond clean and reliable water supplies, and make a positive impact on their environment and their lives. They want us to increase recreational access to the sites we manage, and lead projects which are beneficial to local communities. They want us to go beyond the minimum quality expectations of our regulators.

Saving water – Our customers want us to tackle leakage, and help reduce water wastage. They have chosen a plan which meets the long-term population increase demand for water, primarily through demand management; a 15% reduction in leakage, and a 5% reduction in water use per population. They support further reductions in the long-term, as long as their bills are reduced.

Best experience – Our customers have chosen a plan which gives all of them, whatever their circumstances, the best experience provided by any utility company when they contact us. They also want inclusive services that meet their individual needs.

An ambitious plan for delivering our customers' priorities

The ambition in our plan was identified by the IAP. Our plan continues to deliver industry upper quartile performance, or better where mandated by customers. In some cases, for example leakage and customer satisfaction, we aim to push the frontier of the industry forward.

We were pleased that the high quality of our customer engagement was recognised in the IAP. We have re-presented our initial evidence to demonstrate the clear line of sight between our customers' priorities and the outcomes of our plan, and provided an update on our progress on transforming our business to deliver our plan.

We have retained the four outcomes of our plans.

Outcome 1: Excellent Customer Experiences

Our plans for delivering excellent customer experiences are progressing through our ongoing improvement plans and Transformation Programme. Building on our successful partnership with Wessex Water through our joint venture "Pelican", we will maintain high service standards and a low retail cost to serve. We will bring back in-house the control of operations which connect with our customers, we will improve responsiveness and reduce costs in our wholesale business. Our plan also responds to the needs of our business customers and their retailers, as well as developers, by making the improvements they have told us they would like to see. These changes are underpinned by system improvements which provide a 'single view' of our customers.

We plan to expand the reach of existing care for vulnerable customers by increasing the number of customers on our Priority Services Register from 4,000 to 37,000, as we adopt Ofwat's standard challenge to the water sector. We will offer social tariffs to all those eligible (potentially an additional 12,000 customers) to eliminate water poverty, whilst maintaining customer support for the cost.

In February 2019 we achieved ServiceMark accreditation from the Institute of Customer Service which recognises the high level of customer satisfaction in the services we provide to our customers. We recognise that at the same time, we have more recently had a relatively high number of complaints from our customers when compared on a normalised basis to the rest of the industry. We understand the root causes of these complaints and we have implemented a number of improvements which have seen numbers of complaints fall. We also continue with our Transformation Programme, delivering significant changes to our service contracts and also to our IT to give a 'single view of the customer'.

Outcome 2: Local Community and Environmental Resilience

We maintain our plans to reduce leakage by 15% through improving leakage detection and repair activities, and using new technologies for leak detection. We have seen improvements in leakage performance over the past 12 months (we are likely to outperform our target for 2019/20) which sets the trajectory for achieving our ambitious future target. Reductions in demand will be achieved by increasing the proportion of metered properties from 64% to 75% of our customers. A slowdown in the housing market has meant that metering will only reach 64% in 2020 rather than 66% as we had planned, but we expect this timing difference to catch up by 2021.

We will also build further operational resilience by looking to the market and our community partners to help our customers reduce water wastage in their own properties. We have started initiatives to drive water efficiency and behaviour change by working with local energy and service providers in the Resource West partnership. This regional collaboration will provide our customers with integrated information on how to reduce water, energy and household costs.

These reductions in water demand will more than offset the projections for population growth, meaning that no new water resources are required until at least 2045.

Our contribution to society goes beyond providing an essential service. Through our partnerships, we will provide our communities with free public access to drinking water, improved access to our recreational facilities and closer links with local schools and universities. If we don't deliver to the satisfaction of our customers and their communities, our innovative ***"Bristol Water for All"*** approach will hold us to account.

Outcome 3: Safe and Reliable Water Supply

Our plan remains to reduce customer contacts about their tap water by 50% and aims to improve on our drinking water Compliance Risk Index which is already one of the lowest in the industry. In our revised plan we have placed greater focus on asset health incentives on our Compliance Risk Index performance, to emphasise its importance to customers.

We completed one of our largest investment projects in 2017-18 which has made our network resilient to system failures for communities with a population of over 25,000. We remain committed to increasing the scope and reach of this resilience further to protect communities of over 10,000 population from low probability, high consequence failures. We provide evidence of how this enhances long-term services to customers and we were pleased that Ofwat recognised our ambition in the IAP.

Our plan uses an optimised combination of operational strategies and capital investment to improve the resilience of our supply network by preventative, as well as response and recovery measures. This means we will reduce interruptions to water supplies by 85%.

Outcome 4: Corporate and Financial Resilience

Our corporate and financial resilience underpins the delivery of our other three customer-facing outcomes; together with operational and service resilience, they deliver 'resilience in the round'. Since the last price review, and the Prescribed status of the company under Ofwat's monitoring framework, we have substantially improved our corporate resilience, now founded on strong governance and assurance, as demonstrated by the comments of our Assurance Partners on the strength of our Assurance Plan. This has been recognised by the move to 'targeted' status under Ofwat's monitoring framework.

The customer excellence culture of our employees is vital and this stems from their connection to the communities we serve. Since our business plan submission we have worked with our colleagues to develop and launch our new employee values. These set our expectations of our colleagues and challenge ourselves and others to be ambitious, accountable and professional whilst maintaining our special pride in our organisation, support and respect for each other and our customers. At the centre of our values and culture is being trustworthy, with clear links to both our vision and our purpose.

As part of transformation plans we have continued to develop our people strategy which has a focus on how we work, including with our suppliers, to deliver the best levels of service. In addition, we have created a plan which will provide Bristol Water with the right organisational structure to enhance the customer experience, support investment in skills and personal development and provide a focus on employee engagement to ensure our people are motivated to deliver high levels of personal performance. Our people strategy is fully aligned to our business plan and targets and measures have been set to ensure year on year improvements.

Our financial resilience continues to be founded on transparency and long-term viability. In response to the IAP, we have undertaken additional stress testing of our financial plan. We demonstrate that we are financially resilient in the long-term to a relevant range of risks. This resilience is founded on our financial prudence, with gearing close to Ofwat's assumed level. This testing demonstrates that our financial ratio and target credit ratings are appropriate, given the low financial risk that our prudence provides. We set out our financial resilience with and without the CSA allowance, although the CSA relates to efficiently incurred debt so our assumptions in our view are part of an appropriate level of financial headroom for a company such as Bristol Water.

Our outcome delivery incentives

We have responded to the IAP challenges in relation to outcome delivery incentives for individual performance commitments by making some changes to these. In the case of over or underperformance against our outcomes, the resulting annual incentive or penalty payments will be between -£5.2m for underperformance and +£1.9m for outperformance. The central estimate of the impact of these payments on our Return on Retained Earnings (RORE) is likely to be in the range of -2.5% to +0.9%. Together with 'C-MeX' and 'D-MeX', the full possible range for outcome incentives is -£11.2m to +£6.2m each year (all figures 2017-18 CPIH prices). A comparison to our September submission is given in Table 1.

Table 1: Comparison of Incentives in original and revised plan

	Revised plan	Original plan
Annual central incentive range	-£5.2m to +£1.9m	-£4.9m to +£2.3m
RORE central estimate	-2.5% to +0.9%	-2.3% to +1.1%
Annual full incentive range including 'C-MeX' and 'D-MeX	-£11.2m to +£6.2m	-£10.8m to +£6.7m

It has been a difficult task to maintain an overall balanced risk and return for ODIs given the range of Ofwat challenges. High service levels and a stretching plan mean there is less scope for outperformance than would otherwise be the case, and customers are clear that they do not feel that strong financial incentives are necessarily the best approach, particularly for asset health measures that are not customers' main priority for performance, such as mains bursts. The incentive valuation approach in our plan remains robust. Many incentive rates are below unit rates based on cross-company comparisons, but this reflects our service levels and customer's priority to see bills fall whilst improving services. Other than technical changes, we maintain the incentive rates from our original plan as these were subject to substantial assurance via our assurance framework.

For financial resilience, and to reflect customer views on incentives and bill volatility, we maintain our proposed cap on the annual reward or penalty at £2.5m (£4 average household bill) in any one year, with the remainder rolling forward to the following year. In addition, for industry consistency, we also adopt Ofwat's 50% sharing proposal should our ODI outperformance exceed 3% RoRE in any one year (this would not in practice apply to either our original or our revised plan).

Maintaining bill reductions from 2015 and keeping bills low in the long term

We set out a range of evidence in our plan as to how we have responded to the IAP cost position. In most cases, we believe the IAP efficiency gap of c13% will be closed by presenting information on our enhancement investment proposals, as well as areas where the IAP cost allowance was not applied as we believe Ofwat intended. We have a range of areas where we are continuing to explore the efficiency models Ofwat published with the IAP, as the choice of model or assumption makes a large difference to whether our plan costs are viewed as efficient.

It continues to be our view that our continued transformation will deliver £52m of new cost efficiencies by 2025 (around 9%), with c80% delivered from 2020. We have considered the wider evidence on future labour cost and industry frontier efficiency. This results in a further 0.8% p.a. (£13m) base wholesale and retail totex efficiency from 2020, which offsets other changes such as tax that would otherwise increase bills from our original proposals. We provide supporting analysis from consultants on the efficiency models and future efficiency assumptions, and retain the view that our revised plan represents at least industry upper quartile efficient costs.

With forecast inflation, bills in 2025 will remain £8 below the level that they were in March 2015. The long-term picture for our bills suggests a small increase in 2025, reflecting the end of adjustments for 2015-20 performance which reduce bills to 2025, see Figure 1. Bills thereafter reduce to 2030, see Figure 2. We have made minor adjustments to smooth the bill profile to best reflect customer preferences.

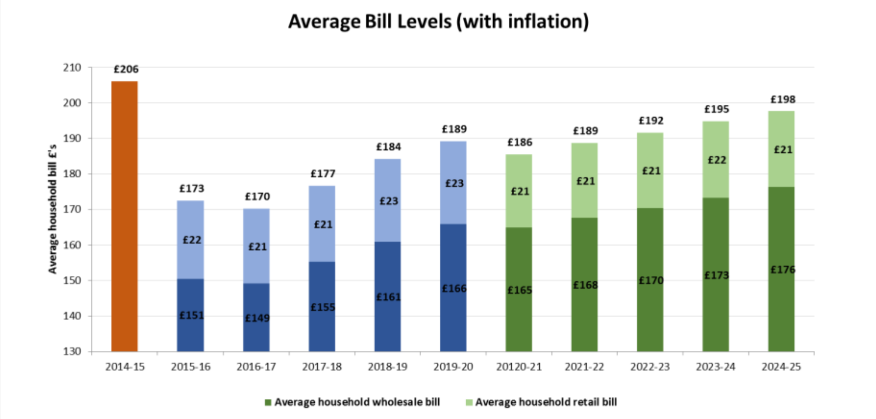


Figure 1: Average household bills including inflation

We continue to have a significant cost uncertainty relating to the Canal & River Trust (CRT), supplying half of our raw water via the Gloucester & Sharpness Canal. The Trust is proposing a substantial price increase of up to £8m per annum, which in our view is not justified and is not in the long-term interests of our customers or the environment. This issue remains unlikely to be resolved before PR19 determinations, as arbitration has yet to commence and no details of the case being made by CRT has been received. We have not included any reduction or increases in our plan and intend to resolve the matter through arbitration.

We continue to propose a notified item that shares 75% of any reductions or increases with customers through adjustment to bills. This is the most appropriate mechanism, allowing Ofwat to fully assess our efforts to reach the best outcome for our customers, while protecting long-term financial and service viability.

The total cost of delivering this plan in the period 2020-25 is £494m, 5% below our expenditure over 2015-20. In order to deliver better outcomes at lower cost, we have taken a Total Expenditure (Totex) approach to planning our activities, resulting in a shift from capital intensive solutions to operational interventions. Since our original business plan, additional efficiencies of c£4m over 2015-20 have been targeted, emphasising the progress we have already achieved with our transformation programme.

Our transformation plans and other day-to-day initiatives are planned to deliver efficiencies in our wholesale business so that Capital Expenditure (Capex) efficiency will exceed input price increases (such as labour and material costs). We have included an initial efficiency gain of 9%, and an ongoing 1.3% per annum. Operational Expenditure (Opex) includes an ongoing efficiency of 1.1% per annum, offset by input price increases of 1.4%, reflecting the cost of resources (labour, material, energy, etc.). This also reflects that there are no major one-off capital interventions in our plan where potential for one-off efficiencies are readily available.

The nature of our investment (fully integrated in existing operations with no separable investment project above £3m totex), means that we have not proposed to use Direct Procurement for Customers (DPC) within our plan. The potential for major schemes for water trading export remains the most likely area for DPC in the future, and we will work as part of West Country Water Resources to explore this potential.

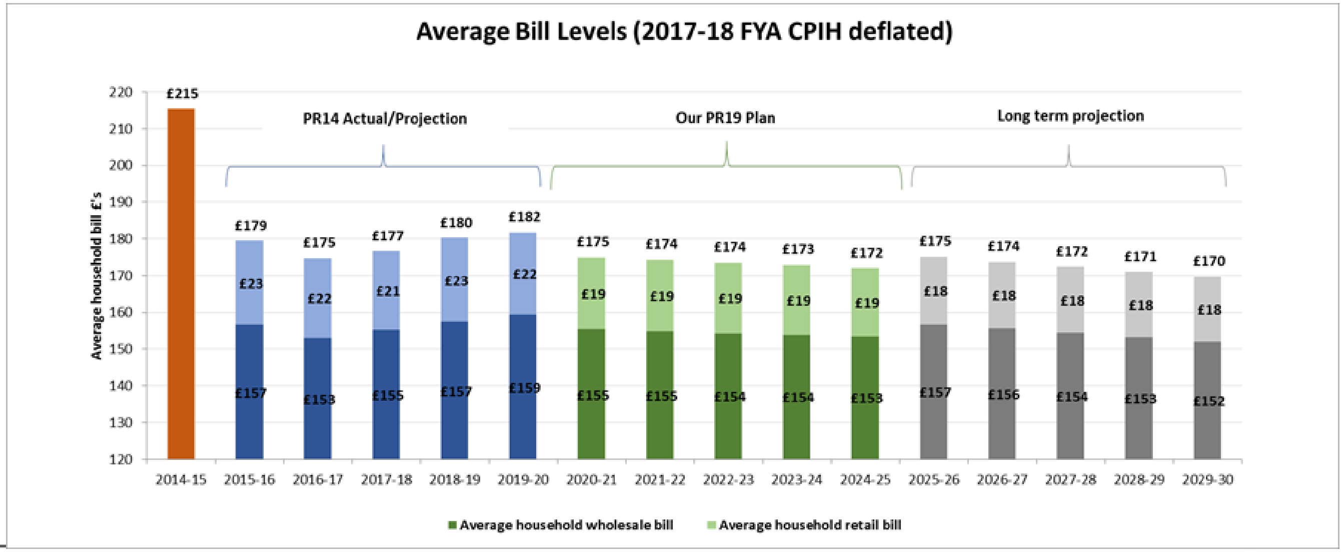


Figure 2: Average household bills in 2017/18 prices excluding inflation

We expect residential retail costs to decrease by 0.4% per annum, with initial efficiencies of 7.4% targeted at bad debt, and c1.2% per annum targeted at ongoing improvements. We have not reflected Ofwat's IAP retail efficiency models, as the bad debt model does not, in our opinion, appear to provide a suitable explanation of relative efficiency between companies. We will explore this further outside of the time constraints of the IAP response.

A balanced and high quality plan, acceptable to our customers

We have carefully reviewed the additional evidence provided as part of the IAP, as well as best practice across the industry. Our Board has again used the extensive views of our customers (including new research), to agree our response to the IAP, balancing the trade-offs on risk and reward, service improvements and bill levels. Our plan continues to be well-considered and protects the long-term interests of our customers.

We have tested the acceptability of our revised plan. At a bill level of £172, acceptability is 93%. With inflation added, the acceptability is 82%. This compares to 93% and 83% respectively for our original plan. All proposed service levels continue to be supported. Acceptability ranged from 89% for the most service and price vulnerable customer segments, to 100% for the "Thirsty empty nesters" segment.

We have undertaken additional research to confirm that our customers support the additional cost of financing (associated with the efficient historical debt of Bristol Water). At the lower cost of £1.80 (actual £1.74) within our revised plan, 87% of customers supported the additional cost in exchange for a small local water supplier providing trusted local services to them. Only 9% disagreed with paying this cost. We have reviewed our commitments to hold us to account for this additional cost through ***"Bristol Water for All"*** - an additional sharing mechanism that puts transparency at the heart of delivering for customers. In our revised plan, we have increased the level of reinvestment of our view of the additional local financing cost to customers, if we are not one of the top three England & Wales water companies under UKCSI, or if community stakeholder satisfaction falls. This voluntary sharing mechanism is not dependent on PR19 decisions – it reflects our social contract by linking to what makes Bristol Water an exceptional company in the view of our customers, staff and local community. This is the challenge that the Bristol Water Board and executive team have committed to delivering on.

Our package of proposals continues to deliver affordable bills with significant and challenging service improvements. Our plan remains realistic and ambitious, it balances key trade-offs between improving services, customer experience and maintaining financial viability, while reducing costs.

We are confident that our stretching targets are deliverable and in the long-term interests of our current and future customers. Since our original business plan submission we have continued with our business transformation, focussing on reinvigorating the purpose of the company and empowering our staff to deliver excellent experiences to our customers through our culture and values. At a detailed level, we have developed our Outcome Delivery Strategies, which document how we will achieve the commitments which we have made to our customers.

Our plan provides fair returns for shareholders while delivering for our customers and communities. In addition, we continue to adopt Ofwat's benefit sharing proposal should gearing increase beyond 70%, existing preference shares are excluded from this definition of gearing to maintain financial viability.

Our plan retains our local community delivery model, innovating for the wellbeing of society by linking customers and stakeholder experiences for the benefit of all. Through our social contract we have established a framework to deliver demonstrable community benefit with high levels of customer satisfaction, transparent engagement, policies and governance; together with financial consequences should we fail to meet expectations. Given the recent resonance our approach has had within the water sector and beyond, we are aware that this increases the importance that Bristol Water delivers our transformation and our social purpose. We are happy to engage with Ofwat on any further steps that we can take to provide confidence on our commitment and accountability for both what this plan delivers, and how we deliver it.

We anticipate there will be some areas of IAP challenge we will need to discuss further with Ofwat before draft determinations. These include progress on Canal and River Trust arbitration and final performance for 2018/19, including our expectation that we will meet our leakage target which provides confidence in the trajectory of our forecasts. We recognise that efficiency and the cost of capital are areas we will need to provide further review and evidence as Ofwat receive responses to the IAP.

Bristol Water Board confidence and assurance of our plan

The Board of Bristol Water has been changing and strengthening since 2015. The Board of Bristol Water now has four Independent Non-Executive Directors, in addition to the Independent Chairman, who form the largest group of directors on the Board. The current structure and membership reflects the increased emphasis on governance, assurance, and Board strategic leadership required to gain and maintain the trust of our customers, stakeholders, employees and the communities we serve.

The Board of the company has continued to lead the development and delivery of our plans and has reviewed the IAP assessment in detail, together with summaries of additional evidence, best practice and the output of additional customer research. Rigorous assurance processes have been applied to the data and analysis which has supported our response to the IAP.

Board decisions continue to be based on high quality data, developed and checked in line with robust governance and assurance processes. Third party assurance has again been used to augment our own internal review and provide challenge. As we continue to modernise our approach to corporate governance, and customer trust, we also continue with our ambitious transformation, which is integrated with our steps to improve the maturity of our resilience.

The Bristol Water Challenge Panel, chaired by Peaches Golding OBE, has continued to provide challenge on the quality of our customer engagement and the extent to which the results have driven the decisions that underpin our plan. The link between the BWCP and the Board has been further strengthened through the community focus of Jim McAuliffe, an INED who joined the Board in November 2018. The BWCP also has continued to provide scrutiny of our outcome performance.

Summary from the Bristol Water Challenge Panel's report on our revised plan

"The Challenge Panel is pleased that Bristol Water has achieved 'Slow Track' status and a 'Targeted' assurance category as a result of the IAP. This represents a significant improvement from PR14 and reflects the company's efforts to improve its processes and governance."

"The Challenge Panel considers that the additional customer engagement carried out by Bristol Water is appropriate and robust and that it meets the Panel's tests of best practice. The results of the engagement have been used appropriately, in conjunction with previous engagement outcomes in some cases, to reshape the PR19 Business Plan where necessary. Bristol Water has decided that further research into its social tariff cross subsidy should be undertaken over a longer timeframe in order to provide robust findings. The Challenge Panel agrees this is the best course of action."

3 Key facts and figures

Financial summary

Totex of £494m 2020-2025
- Below £536m CMA PR14
- Below £521m 2015-2020
- £65m of efficiencies

Cost of capital falls by 1.2% to 2.6% (Real RPI)

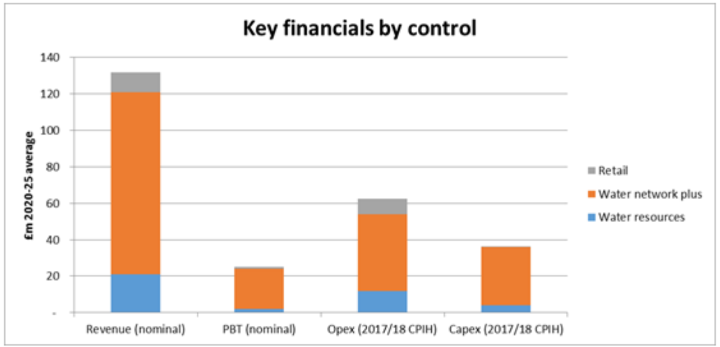
Moody's Baa2 – our target investment grade credit rating

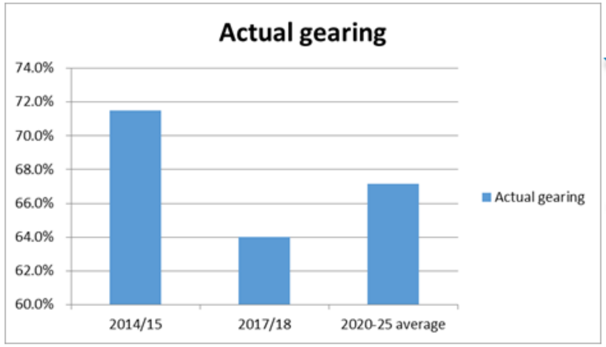
Outcome delivery underperformance -2.5% RORE

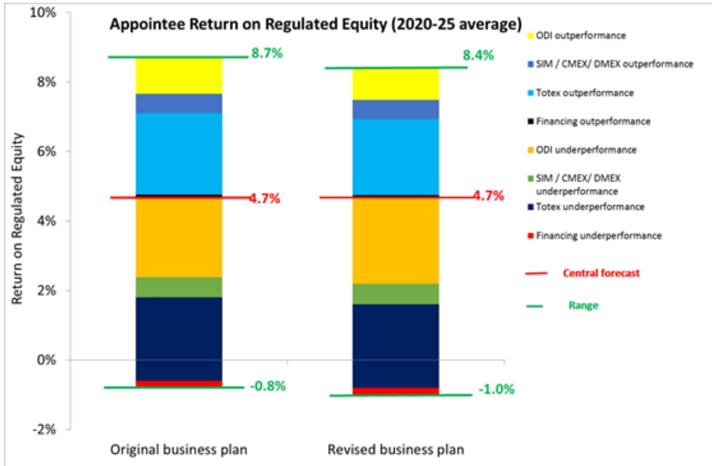
Outcome delivery outperformance +0.9% RORE

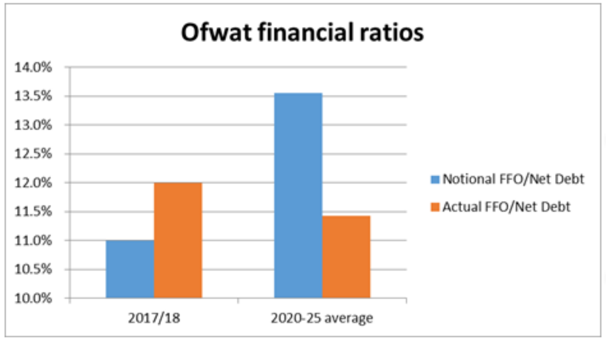
RCV – 1% reduction 2020-2025 before CPIH inflation

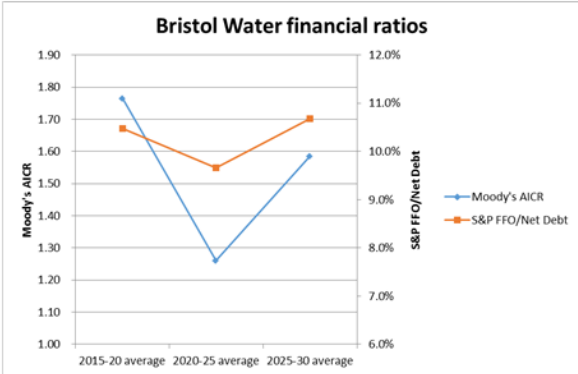
Dividend yield of 3.2% and 1.3% p.a. real growth – average £6.4m p.a.











2025 bills £8 below 2015 levels despite 10 years inflation

Supply interruptions reduced 85% (industry forecast top quartile of 1.8 mins per property)

15% reduction in leakage to 66 litres/property/day

5% reduction in per capita consumption to 135 litres/person/day

Residential meter penetration increases from 64% to 75%

- Aim to be top water company and top utility on UKCSI survey
- Maintain being most trusted utility
- 85% vulnerable customer satisfaction
- 85% community stakeholder satisfaction

High level summary of our plans by outcome

Outcome	Customer priority	Customer promise	Summary of our plans for 2020-25
Excellent Customer Experiences	You give me a bill that I can afford	1. Affordability for all - lower bills for customers. 2. Achieving customer excellence.	• Support all eligible customers through social tariffs • Absorb cost of performance improvements through efficiencies, reducing bills by 5% by 2025 before inflation • Transform our services, to keep pace with customer expectations, aiming to become the number one utility for customer satisfaction as measured by the UK Customer Satisfaction Index (UKCSI).
	You get the best possible experience every time you need us	3. Inclusive services - that meets customers' individual needs, especially when they are most vulnerable. Aiming for zero water poverty.	• Provide customers with more choice on the way that they interact with us and the services that they receive • Continue to be one of the leading performers in providing excellent services to retailers, and to improve our developer service response to the same level • An increase in the number of customers who receive extra care services through our Priority Services Register from 1.6% of customers to 7%
Local Community and Environmental Resilience	Saving water before developing new supplies	4. Reducing leakage - 15% leakage reduction 5. Promoting water efficiency and metering	• Reduce leakage by 15%, on top of the 12% delivered since 2015. • Support customers to reduce average water use by 5% (7 litres per person per day) through water efficiency support and advice and by installing an additional 40,000 meters.
	Trust beyond water – helping you to improve your communities and the local environment	6. Bristol Water for All - accountable to the community partners we work with for the wellbeing of society 7. Building biodiversity and protecting the environment	• Improve habitat around rivers and reservoirs, equivalent to 5 hectares of high quality new habitat • Catchment management partnerships to retain 531 kg of phosphorus which would otherwise impact rivers and reservoirs and increase treatment costs • A programme of activities which benefit our communities, agreed and overseen by our stakeholders including improved recreation access at our sites, expanding public access to free drinking water, reducing traffic congestion, working with Resource West on resource efficiency messages • Linking our community contributions and customer satisfaction to reinvestment through "***Bristol Water for All***"

Outcome	Customer priority	Customer promise	Summary of our plans for 2020-25
Safe and Reliable Supply of Water	**Keeping top quality water flowing to your tap**	8. Improving water quality - including contacts for discolouration and taste 9. Reducing supply interruptions 10. Resilience – boosting protection for population centres of more than 10,000	• Continued compliance with water quality standards • 54% reduction in discoloured water and 43% improvement in tap water taste • Replacement of all lead communication pipes (i.e. the lead pipes in our ownership) that supply pre-schools and nurseries within our area by 2025 • Achieving industry top quartile in supply interruptions, with our plans delivering a forecast 85% reduction to 1.8 minutes per property each year • Extending coverage of our operational resilience scheme to an additional 540,000 customers, to protect from the risk of a severe interruption to supply lasting more than 24 hours • Expanding the scope of our resilience investment to protect against a wider range of operational risks
Corporate and Financial Resilience	**Supports the achievement of all customer priorities**	Supports the achievement of all customer promises	• Cut customer bills in real terms and to retain them below the level they were in 2015, with a 4% reduction in the average household bill in 2020, before CPIH inflation. • Target an industry upper quartile or better efficiency position through £65m of efficiency savings • Reduce void rate to 1.8% (c1,000 fewer household voids) • Reduce level of bad debt by £0.5m per annum (from 3.45% to 2.93% of revenue), reducing customer bills by c£1 • Fair and transparent remuneration and dividend policies • Sharing scheme linked to delivery of community benefits and customer satisfaction • Zero tolerance for health and safety failures • Resourcing and development strategies to ensure that staff capabilities match our changing needs.

4 Our approach to responding to the IAP

We have carefully considered Ofwat's detailed feedback in its IAP. We have listened to each of the challenges raised and responded with changes to our plan or additional evidence to support our approach.

4.1 Introduction

This section provides an overview of our approach to responding to the IAP challenges, a summary of the key challenges as we see them and how we have responded, together with the mapping to where our detailed response can be found within our revised plan. This section also contains a summary of the additional customer research which we have undertaken as part of this process of challenge and refinement. Our summary of the findings of the IAP test area assessment, our response to the findings, and signposts to where further information can be found, is provided in **Error! Reference source not found.**'Our guide to our plan'.

We were pleased that many elements of our plan were found by Ofwat to be high quality, including our customer research. In cases where the IAP found that additional evidence was required, we have taken the opportunity to consider best practice from other company plans in response to both specific challenges on our plan and also wider challenges to the sector. We welcome the 'slow track' categorisation for our plan and we recognise that there are elements of the plan which warrant additional time to consider.

We have sought clarity from Ofwat on specific points of its feedback and also to help us to allocate our effort to the key questions in the time available.

We have made changes to our plan where the balance of new evidence, together with additional customer research, pointed to the need for a change in our original assumptions. However in general, we have been able to present evidence available when we prepared our original plan, that builds on the strengths Ofwat recognised overall in our plan in the IAP.

4.2 Evaluating the IAP

We took the same approach to developing our IAP response as we took to developing our original submission.

Though our response has been produced in a compressed timescale, we are confident that our plan remains high quality due to the governance and assurance processes that we followed.

Our approach included:

Work to make decisions on the revised plan:

- Internal challenge and review of the required actions.
- A series of queries to Ofwat to clarify our understanding of the IAP, with discussions on key topics to help ensure we understood the areas of challenge in full
    - Challenge and review by the PR19 Board Sub Committee
- Oversight and decisions by the full company Board

Advice, challenge and assurance:

- Engagement and discussion of challenges with the Bristol Water Challenge Panel, with a particular focus on how customer view and evidence informed our revised plan
- Strategic assurance partners and financial auditors - PWC
- Non-financial technical assurance - Jacobs
- External expert advice and reports – KPMG (Company Specific Adjustment to the cost of capital), NERA (cost efficiency and WTP triangulation, EY (financial resilience and ratings), ICS Consulting (acceptability and outcome incentive research), Jacobs (resilience maturity assessment and systems based thinking)

Our assessment was that rather than just responding to the individual actions, we needed to review substantial areas of our plan as a whole. The key supporting documents on cost, outcomes, resilience, financing and past delivery have been updated and reference our revised plan and supporting evidence in full. We also provide a response to the specific IAP required actions, considering the test area assessments and supporting evidence as a whole.

In the revised document **A Guide to our Plan** we have provided a mapping from both the IAP test area assessment comments and from our IAP actions to our revised plan and have included a summary of how we have responded in each case.

Key IAP challenges

There were a range of challenges to our plan within the IAP, ranging from broad, fundamental challenges to more specific challenges and evidence requests. Here we summarise the key challenges to the fundamentals of our plan.

Deliverability - One of the key challenges within the IAP was to evidence how our plan can be delivered, particularly given recent outcome and customer complaint performance. We have responded by providing further information on learning from our current level of performance, an update on our transformation programme and further information our resilience maturity assessment. The deliverability of our plan is the focus of our Board assurance and represents a promise from the Board on what our plan as a whole can be expected to deliver, in a way which allows Ofwat to hold us to account on behalf of our customers.

Totex costs – Ofwat's view is that our original plan was 12.9% above the modelled view of efficient costs. We set out the changes to cost in our revised plan as well as evidence that we believe Ofwat should consider, such as for our resilience enhancement spend. We believe we will need to review the IAP models further as our efficiency position appears sensitive to the assumptions made.

Outcomes –Specific challenges were raised on a significant number of our performance commitments. We have considered these points individually in relation to our customer research, but also collectively to retain our RORE range and overall financial resilience. Where appropriate we make changes to our ODI design as a result of Ofwat's challenges and the information the IAP reveals, whilst retaining customer support. Overall the changes we make improve the balance of the plan, even though this was considered high quality in the IAP.

Operational resilience – The IAP found that further evidence was required of an integrated and system based approach to resilience, as well as further evidence of how our long lists of risks has been prioritised. We believe that we provided evidence of our systems based approach within our original submission, but the plan didn't describe it in those terms clearly. Although an action plan is not required until August 2019, we provide further evidence of our approach and an update on our social contract, which illustrates our systems thinking approach.

Financial resilience – The key action for us is to consider our long-term financial plan, with a stable investment outlook as little new financing is required until the Artesian debt is repaid after 2030.

Our financial resilience and our existing efficiently incurred debt will be supported by our proposed company specific adjustment to the cost of capital, which has been accepted as efficient at previous reviews. We have reviewed the evidence for the company specific adjustment to the cost of debt size and offsetting benefits with KPMG, together with the detailed analysis behind Ofwat's methodology supplied to us on 22 February.

Based on KPMG's review of Ofwat's IAP challenges, we have reduced our CSA cost of debt uplift to 38bps. Our additional customer research concluded 87% customer support for this adjustment. We have reviewed our financial resilience with and without the CSA and demonstrate the importance that it has to the efficient notional financing of a small water company. We demonstrate how the business would maintain financial resilience without the CSA, as we recognise that the benefits test Ofwat's methodology applies could have a wide range of potential outcomes, based on our analysis.

Board assurance – The Board has updated its assurance statement using the precise wording which Ofwat sought, rather than providing the statement in its own words. Additional evidence has been provided within Section 13 of this document on the strength of the Board and its role in assuring the delivery of the commitments which we make to our customers.

Linking elements of our plan

We recognise that a number of challenges to our original plan were connected and that we need to provide further explanation and mapping of how the elements fit together.

The key elements are:

- Risks to resilience
- Resilience maturity assessment
- Systems thinking
- Deliverability of our plan
- Our Board assurance statement

Figure 3 illustrates our view of how these elements fit together and we provide further evidence and mapping within this document, as well as in:

C4 – Bristol Water Clearly resilient; and

C7 – Track record of delivery

This mapping provides confidence in how:

- Our plan responds to resilience risks
- We have identified gaps in our resilience maturity and how our plans close these gaps
- We recognise the current delivery challenges which are in themselves a risk to resilience and that we have plans in place to continue to address these
- We have delivery strategies in place to deliver our business plan commitments
- Our performance commitments provide incentives that are aligned to addressing the key gaps to resilience identified through our maturity assessment.

We provide details of our mapping, and summarise our plans where the biggest change in our resilience maturity by 2020 is proposed. These represent the key aspects we will monitor and report progress against to our Board

There are no immediate resilience maturity concerns, as was reflected in our ability to respond to recent events. We provide case studies in our revised **C4 document** of the further improvements we have already made even though it is an area of good performance historically, that was recognised in the IAP.

Ultimately as well as this detail, we consider our UKCSI and community satisfaction as the best indicator for ensuring we remain resilient, alongside operational, people, financial and asset measures.

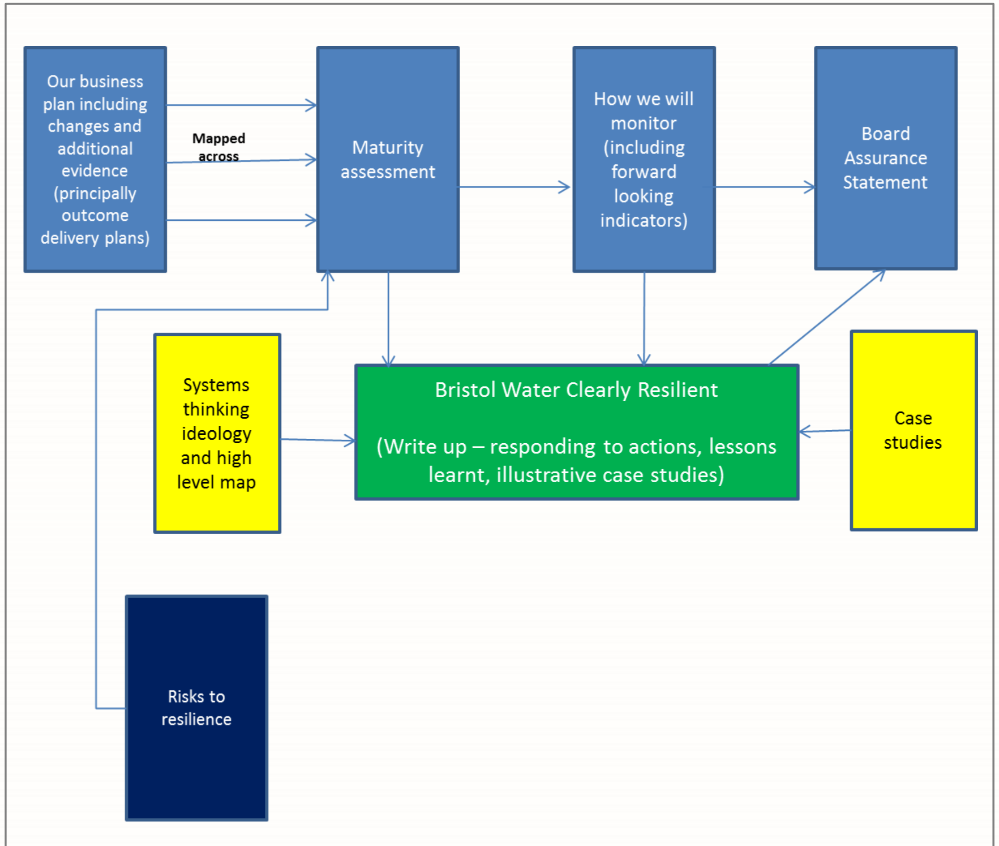


Figure 3: Linking the key elements of our plan

4.3 Summary of changes to our plan

We have made changes to our plan where the balance of new evidence supports a different approach.

In aggregate, these changes have no material impact on the overall bill level proposed for 2020-25.

Changes to the plan that affect bills

- Improved performance in AMP6 reduces AMP7 penalties by £1.9m
- Higher tax due to impact of Autumn 2018 budget (c£1.9m)
- Inclusion of costs associated with Traffic Management Act
- Small amendments to our RCV run off approach to CPIH/RPI transition
- Company specific adjustment for the cost of debt reduced from 45 bps to CSA to 38 bps with additional evidence to support
- Reduced our totex forecast from £503m in our original plan to £494m in our revised plan from a number of small changes, plus an additional 0.8% p.a. lower assumption on future cost inflation / higher industry future efficiencies

Other changes within our revised plan

- Two new performance commitments: Percentage of customers on our PSR and a measure of retailer satisfaction (R-Mex).
- Minor changes to targets to three PCs:
  - Supply interruptions 2024/25 target changed from 1.8 minutes per customer to 3.0 to reflect the industry upper quartile within the IAP.
  - Unplanned outage 2024/25 target changed from 1.74% to 1.50%, reflecting our best performance to date.
  - Risk of severe restrictions during a drought 2024/25 target changed from 0% to 42%, reflecting a change to the measurement methodology.
- Changes to the design of a number of ODIs in response to Ofwat's challenges, tested through further customer research
  - One new incentive cap
  - Two collars re-set
  - Deadbands removed from five PCs and reset for two PCs
  - ODI rates revised for seven PCs
- We have increased the focus of asset health performance incentives on water quality (Compliance Risk Index PC) as a safe and reliable supply is our customers' top priority.
- The overall RORE range remains roughly the same - underperformance range increases from 2.3% to 2.5% and outperformance range reduces from 1.1% to 0.9%

Additional evidence

We have provided additional evidence in a number of key areas:

- Additional evidence of customer support for our plan
- Reasons for current areas of poor performance and actions being taken to prepare to deliver our plan (outcome delivery and cost efficiencies)
- Line of sight between our improvement plans and improvements to our resilience maturity
- Line of sight between business risks and our response
- Evidence of our current systems thinking approach and our view on areas of further improvement to secure resilience in the round.
- Additional financial resilience testing and additional evidence to support our target credit rating and approach.
- Further detail on our approach to catchment management and third party options for water resources
- Evidence of how the natural environment underpins our ability to deliver resilient services to customers
- Further evidence to support our totex forecasts, including our enhancement costs

- Additional evidence on the approach taken by the company Board to ensure that our plan is deliverable.

In 'Our guide to our revised plan' we have provided summaries of our response to each IAP action and also to the feedback within the IAP test question summary.

4.4 Additional customer research

We have undertaken additional customer research to inform our response to the IAP. This research covered the following topics:

- Testing multiple bill profiles beyond 2025 with customers (BRL.AV.A1)
- Customer support for PC-specific deadbands (BRL.OC.A3)
- To test the balance of rewards and penalties for the PC's (BRL.OC.A4)
- Customer support for financial incentives and outperformance payments around:
    - Raw Water Quality of Sources PC (BRL.OC.A40)
    - Biodiversity index PC (BRL.OC.A41)
    - Local community satisfaction PC (BRL.OC.A54)
- Customer support for the additional bill impact associated with a company specific adjustment to the cost of capital (various actions)
- Acceptability of our revised plan

Full write ups of this research can be found in our additional evidence files:

B37. Final Acceptability Validation March19
B38. ODI Focus Groups March 19

Summary of our approach

We tailored our approach to achieve the best balance between qualitative insight through smaller focus groups on complex topics and acceptability testing with a larger, statistically representative sample. The research built on and complemented all of the research and engagement which was undertaken to inform our original submission.

Research on Outcome Delivery Incentives

Six focus groups were held over two days split between Bristol and Street in March 2019. The composition of the groups ensured a good cross section of gender, age and socio-economic group. In total, 48 customers attended the six focus groups. Due to the depth of discussion on each of the topics, the focus for the groups was different in different sessions, so that all the topics could be covered in sufficient detail; hence the sample size for some of the results is lower than total numbers attending the groups. The research was undertaken in addition to the significant amount of research undertaken to date. If the new research had highlighted customer views that were not supportive of our plans, we would have started further research in this area. This did not prove to be necessary and the BWCP were supportive of this approach.

The research explored a number of issues around ODIs including:

- Views on incentives in general
- Views on outperformance payments

- Views on outperformance caps – where applied and the levels set
- Views on underperformance collars – where applied and the levels set
- Views on deadbands – where applied and the levels set
- Views on the approach to asset health

The actions required in the IAP were explored with customers through rotated discussions. The focus groups explored incentives, first in principle and then the application in practice to performance commitments.

Refinements to our approach in line with social research best practice were made during the focus groups to improve customers' understanding of the materials and topic better so we could understand customers' views. The changes were based on feedback from the Bristol Water Challenge Panel and they were included in the thought process of what changed and why.

Acceptability testing

An online survey was used between 5 – 19 March 2019. In total, 415 customers responded, with a good cross section of gender, age and socio-economic group. This was sufficient for us to explore views by our customer segments. The BWCP was comfortable with the sample size for this research, together with the approach that built on the 300 sample size survey undertaken for the original plan.

The new research repeated many of the questions from our final acceptability plan testing, in order to provide context for the ODI and CSA uplift required IAP actions. Customers were asked:

- Whether they agreed with specific service level improvements with associated bill impact
- Acceptability of the overall bill for the package of improvements delivered
- Which ODI package they preferred
- Which long term bill profile they preferred
- Whether they supported the small company premium (CSA uplift to the cost of debt)

Summary of findings on ODIs

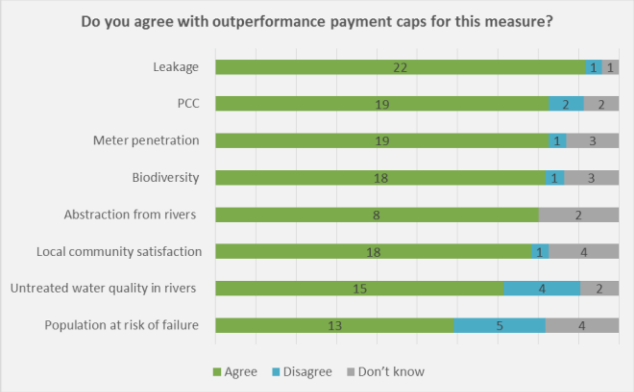
- Customers have high levels of satisfaction with Bristol Water and the services it delivers. Bills are considered value for money.
- Customers welcome the ODI framework, as variations in the bill are small but sufficient to ensure Bristol Water has a strong focus on delivering for customers.
- Customers do not want incentives overly focused on areas of asset health that don't relate to their direct experience. The balance of the Bristol Water plan felt about right, in part because of existing trust.

Outperformance payments

The research found that outperformance payments are supported – in principle overall, and for the measures identified in the plan. Outperformance payments are supported as they allow Bristol Water to continue to drive improvements in important aspects of performance.

Figure 4 shows strong support for outperformance payments, both in principle and at the level proposed and all respondents identified at least some areas where they should apply.

There was particularly high support for outperformance payments for biodiversity, with protecting the environment seen to be an important part of our role. The most vocal discussion was around incentives for increasing meter penetration, as customers generally wanted metering to be encouraged but not compulsory (as proposed in our plan).



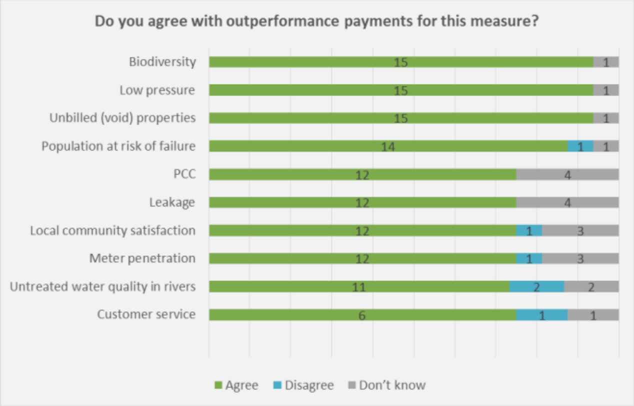


Figure 4: Support for outperformance payments

Outperformance caps

Outperformance caps were thought to be important – with these seen to prevent Bristol Water from overly focusing on one aspect of service to the detriment of others as well as reducing bill volatility. Outperformance caps were accepted in principle and for the measures identified in the plan.

There was widespread support for the need for a cap, and the levels at which these were set.[3] With respect to meter penetration there was good support for caps, accompanied by some concern that the cap needs to be set at a reasonable level.

For other aspects of service, the key consideration given by our customers was to ensure bills do not rise too much due to one measure. This was especially so for local community satisfaction and leakage.

Underperformance collars

Underperformance collars were accepted in principle and for the measures identified in the plan (although for asset health measures customers were less sure).

Overall customers applied collars to specific measures to ensure penalties:

- Are fair and reasonable
- Are not applied for particularly severe weather, e.g. leakage
- Limit exposure for aspects of service that are not seen as core to supplying water, e.g. local community satisfaction, biodiversity, and waste disposal
- Prevent perverse incentives to spend money/change behaviours unnecessarily to avoid penalties – e.g. customer contacts for water quality, asset health, abstraction incentive mechanism

Customers were less sure about collars for unplanned outage at water treatment works, with nearly half of respondents unsure/unable to answer. For those that did answer, considerably more supported collars than not.

For other asset health measures, customers demonstrated high levels of acceptability for collars being applied to these measures, for example, turbidity performance at treatment works, and unplanned maintenance (non-infrastructure).

For leakage, collars are seen as needed to protect against severe weather, see Figure 5.

When it comes to Per Capita Consumption some customers want to see Bristol Water have strong incentives to work with customers to reduce water use, whereas others see it as a joint responsibility and therefore want to see limited impacts on Bristol Water.

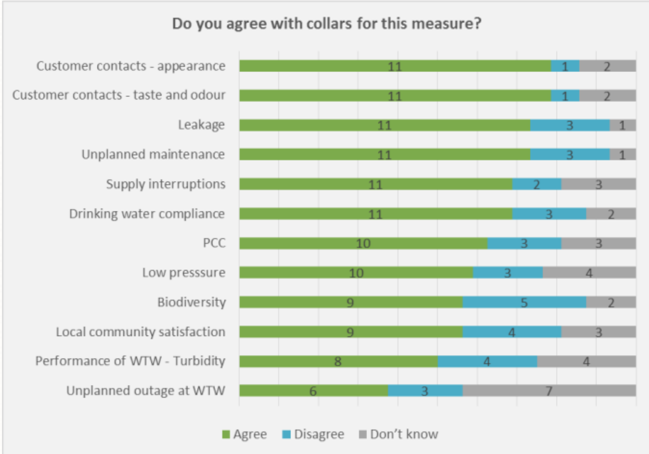


Figure 5: Support for collars

Deadbands

Deadbands were discussed throughout all the sessions. In two focus groups deadbands were considered specifically and in more depth.

Deadbands are seen as sensible as these ensure bills are only impacted by genuine changes in

[3] Abstraction from rivers was tested as part of test of overall caps and collars only, hence the smaller sample.

performance. Customers recognised that deadbands further help smooth bills and prevent perverse incentives. Deadbands were accepted in principle and for the measures identified in the plan, see Figure 6.

Overall, customers thought deadbands were sensible. In the voting exercises 13 out of 16[4] (81%) of respondents agreed with deadbands being applied to some measures to deal with uncontrollable factors and to prevent volatile bills.

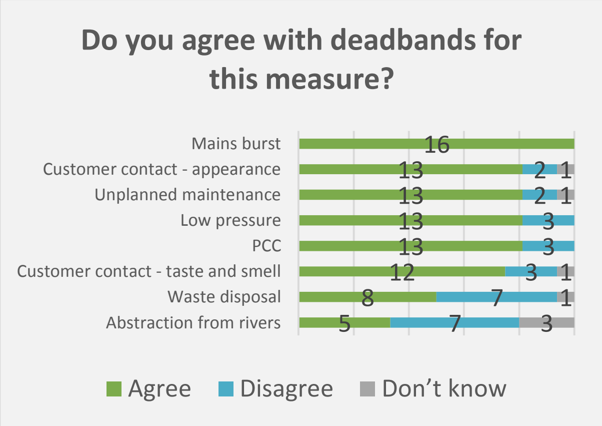


Figure 6: Support for deadbands

Customers agreed with deadbands on specific measures to ensure:

- Bills are smoothed and not volatile
- Penalties and outperformance payments are for genuine changes in performance rather than temporary factors outside the company control, e.g. mains bursts, customer contacts for water quality: taste and smell, and PCC.
- Bristol Water is allowed time to respond to issues – e.g. low pressure
- Perverse incentives to spend money unnecessarily to avoid penalties are prevented, e.g. unplanned maintenance.

[44] In two focus groups deadbands were considered in detail; however, in other groups the use of deadbands arose during general discussions on other aspects of the ODI framework.

However, customers are less keen on deadbands around measures impacting the environment, for example, abstraction and waste disposal compliance, as these could result in negative impacts on the environment.

We have noted that the existing level of trust in Bristol Water makes a big difference to the customer support we get for our proposals and incentives design. We have therefore reconsidered our need for all elements of ODI design in response to Ofwat's challenges, and removed deadbands in particular where it is consistent with technical evidence (such as past performance and plan stretch), as well as where we can improve the ODI design in a way that maintains high levels of trust (e.g. focus more underperformance incentives on CRI). This takes into account comparisons to other companies, which whilst not hugely important to our customers, would if ignored affect trust in the long run.

Asset health

Asset health measures were discussed throughout all the sessions. In two focus groups asset health was considered specifically and in more depth.

Customers discussed scenarios around asset health to gauge their views on the relative importance of asset health compared to performance and this showed that asset health is key to customers.

In voting exercises, 16 out of 16 respondents agreed that asset health should have financial incentives and they agreed with the way that Bristol Water had computed these.

15 out of 16 (94%) agreed that asset health was a significant enough component of the overall ODI bill range.

Most customers supported the penalties part of the bill range, believing it seems proportionate to the bill and overall running costs.

In terms of asset health outperformance, the upside to the bill was seen as very small given most asset health measures are penalty only. Customers supported outperformance payments for asset health. However, for some this could be a bit larger than the current amounts. In practice we could not achieve this based on the wider review of the evidence.

Acceptability testing results

Service level improvements

There were high levels of acceptability for each of the changes to service levels proposed, see Figure 7. In each case, a number of customers indicated that they neither agreed nor disagreed indicating that they did not hold a strong view.

Results are consistent with previous research and show highest levels of support were for improvements to drinking water quality, which is one of our top priorities within our plans.

Figure 7: Customer views on changes to service levels

Acceptability of overall package

We re-tested the overall acceptability of our proposed package of service improvements relative to the level of the average bill, see Figure 8.

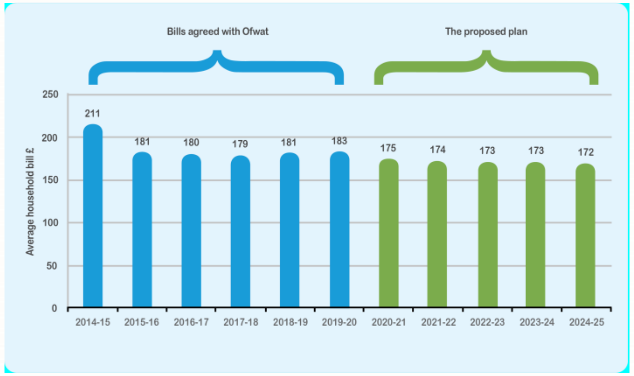


Figure 8: Overall acceptability of our proposed package

Figure 9 shows that 93% of customers found the bill to be acceptable when presented in real terms.

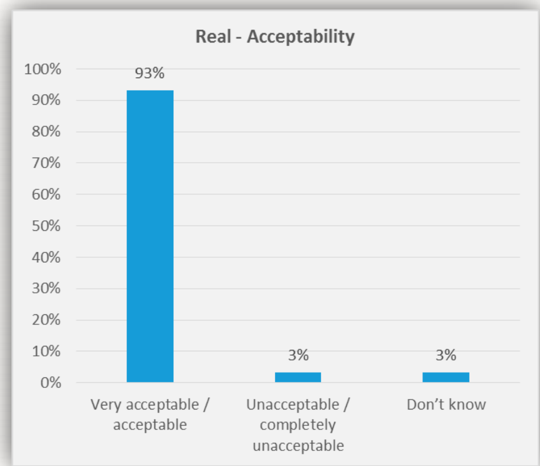


Figure 9: Customer views on acceptability of bill

Figure 9 and Figure 10 show that 82% of customers find the bill to be acceptable when presented in nominal terms, i.e. including inflation.

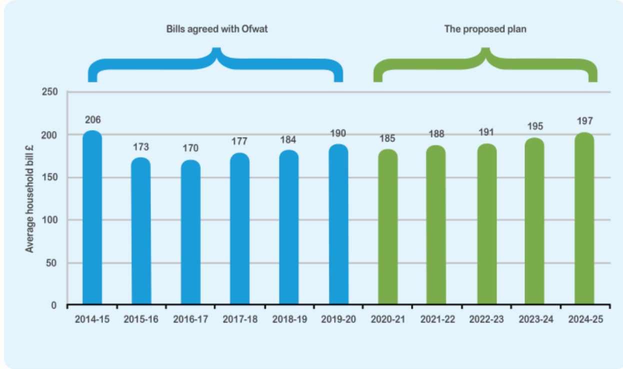


Figure 10: Overall acceptability of our proposed package (nominal terms)

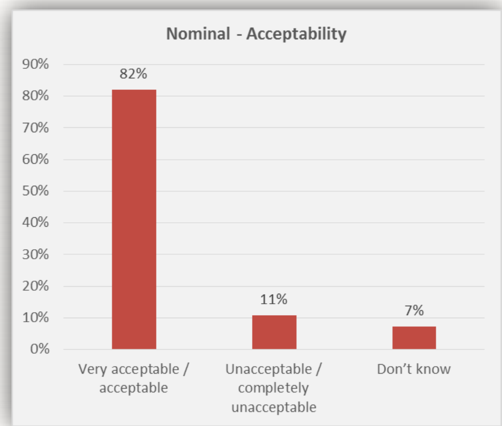


Figure 11: Customer views on acceptability of bill (nominal terms)

These results are almost identical to our acceptability testing in the summer of 2018, where using the same approach, we found that the bill in real terms was acceptable to 93%[5] of customers surveyed (same result), and the bill in nominal prices was 83% (1% higher). This gives us a high level of confidence in the results.

Results by customer segment (Figure 12) show high levels of support across all segments, noting lower sample sizes for Safely Affluent and Thirsty Empty Nester segments.

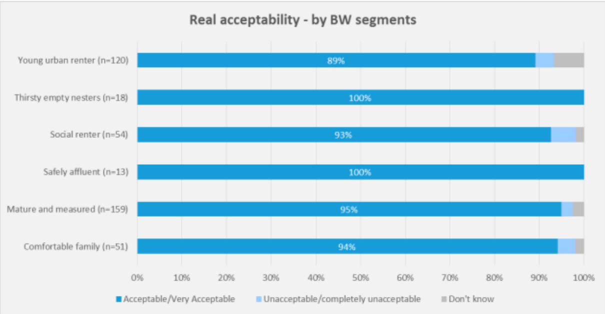


Figure 12: Customer views on acceptability of bill (by segment)

ODI package options

Customers were provided with four options for how the average bill could be impacted by missing or exceeding service targets. The four options include a fixed bill without a variable part and three further packages with different sized variable parts of the bill. Customers were asked to rank the options in order of preference, see Figure 13.

[5] A level of 97% acceptability was determined through a separate piece of research in the summer of 2018. In this piece of research we did not provide a 'don't know' option.

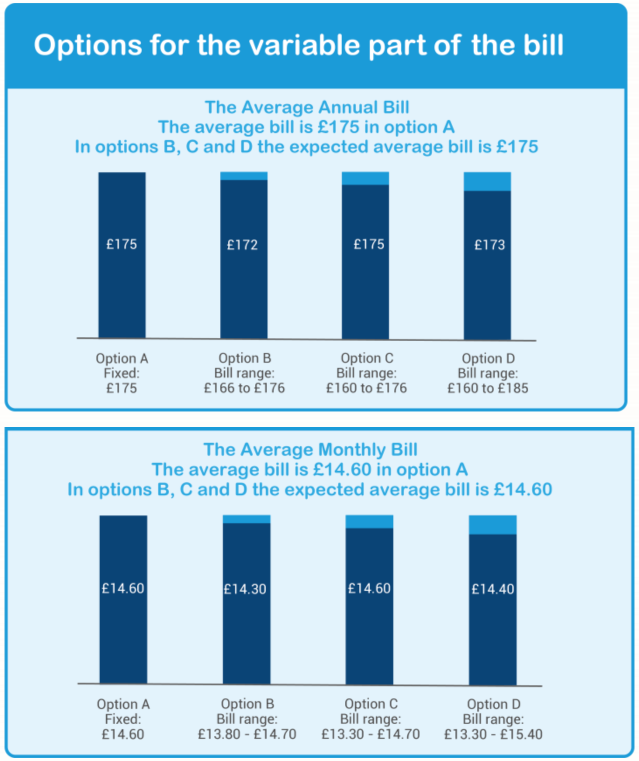


Figure 13: Options for the variable part of bill

Figure 14 shows that Package B, with a variable bill at the lowest end of the range, was the most popular. Package D, with a variable bill at the highest end of the range, was the least popular. Option B is the equivalent of our ODIs with a £4 annual bill cap (c£2.5m). Option C is our central RORE range and Option D was our estimate of the central RORE range applying Ofwat's IAP challenges, in particular removing deadbands and standardising ODI rates to some of the industry norms (low range for common PCs, upper quartile for asset health).

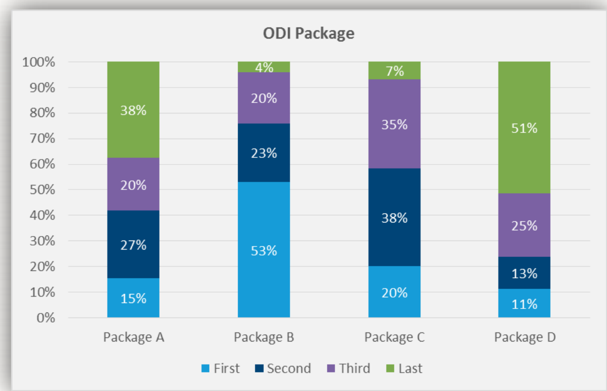


Figure 14: Customer preferences for the variable part of bill

Long-term bill profiles

We re-tested customers' views on longer term bill profiles, providing options for smoothing the bill between 2020 and 2030.

The quantitative results (Figure 15) show that customers preferred a smoothed profile, however the qualitative results indicate that as the variation in the bill is small, customers did not tend to have strong views either way.

Figure 15: Customer preferences for bill profile

Company specific adjustment to the cost of debt

Customers were given information on the additional costs associated with a small company and were asked whether they would be willing to pay an additional £1.80 to retain Bristol Water as their supplier.

There was a good level of support with 87% of customer supporting the additional amount in their bill (Figure 16). Comments made by customers in the survey are shown in Figure 17.

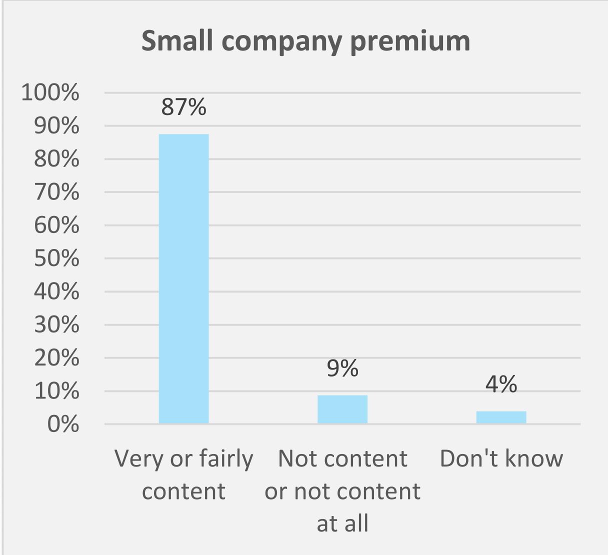


Figure 16: Customer views on the small company premium

Those content with the small company premium - a sample of the comments

- "£1.80 per year is an insignificant amount to pay for increased amount to pay for improved service levels." Male, Aged 55+, SEG C1C2
- "As long as it used efficiently", Female, Aged 35-54, SEG C1C2
- "Because its local and service has been very good over many years" Male, Aged 55+, SEG DE
- "Bristol Water are an honest caring company" Male, Aged 55+, SEG DE
- "I have been in the Bristol Water area most my adult life and the quality of service is first class", Female, Aged 35-54, SEG DE
- "I like the fact Bristol Water employs local people and if the £1.80 is kept to improve the services in our own area it seems a small price to pay" Female, Aged 55+, SEG C1C2
- "Knowing that it's with a company that is local, supports and employs local people" Female, Aged 18-34, SEG DE
- "Such a small amount for a good local service." Male, Aged 55+, SEG C1C2
- "It's a small amount" Male, Aged 18-34, SEG DE

Figure 17: Customer comments on the small company premium

How we have used this additional research to inform our revised plan

We have used this additional research in support of the significant amount of research undertaken to date, to inform areas of refinement in response to the IAP and to provide additional evidence to support our approach.

Further information on how we have used this research can be found within our revised submission:

- **Acceptability and affordability of our overall plan** – Chapter 12 of this document and our **revised C6 document**.
- **Customer support for our performance commitment targets and incentives** – our **revised C6 document**, with changes made to our PCs and ODIs summarised in Chapters 6-9 of this document.
- **Customer support for our company specific adjustment to the cost of capital** – Chapter 12 and our **revised C6 document**.

4.5 A plan challenged by the Bristol Water Challenge Panel

Our independent Customer Challenge Group known as the Bristol Water Challenge Panel (BWCP) was formed in 2015.

The role of the BWCP is to provide independent challenge to us and independent assurance to Ofwat on:

- Our performance against our current commitments
- The quality of our customer engagement; and
- The extent to which the results of this engagement are driving our decision making and are reflected in our business plan.

The BWCP is an independent group of interested and expert stakeholders with close connections to our local communities. The panel, or a sub group of the panel, has met 31 times since it was formed and has spent over 100 hours with us to review customer research plans and results and has challenged how these have been used to develop our business plan. Members of the panel have also regularly attended customer research events to observe first-hand customers' responses to the topics in question.

Members of the BWCP

The following organisations are currently members of the BWCP:

- Bath University
- Consumer Council for Water
- Environment Agency
- Natural England
- North Somerset Council
- University of the West of England
- Mendip District Council
- The Story Group

In addition, the BWCP has several independent members representing regional industry, local farming and public health. Outside of the BWCP meetings, we have engaged with stakeholders directly on a number of issues, as well as through group workshops to co-create our long-term ambition.

Minutes of the BWCP meetings are available on our website, along with their annual reports. The BWCP also maintains a log of any challenges to the company and our response, with c500 entries. We responded to each of these and in many cases they influenced how we modified our plans.

The BWCP has continued to play a role in challenging our business as usual customer research and in challenging our performance. It has also continued to challenge the development of our business plan, to ensure that it reflects customer views.

Independent Chair – Peaches Golding OBE

Peaches is the Lord Lieutenant of the City and County of Bristol. She is a trusted and respected business and community leader with an array of experience in representing customer groups, not least from her time on Ofcom's Viewer Panel for ITV West. She is widely regarded for her work representing diverse and disadvantaged communities.

Independent deputy Chair – Tony Denham

Tony spent 10 years as the Consumer Council for Water's Local Consumer Advocate. Prior to this, he spent 35 years working in the energy sector.

Role of the BWCP in challenging our revised plan

The Challenge Panel and its Customer Engagement Sub-Group met with us three times since the IAP was published at the end of January 2019 to review the IAP and our response to it. As part of this process the BWCP has assessed:

- The feedback and challenges raised in the IAP which are considered to be relevant to customers and the work of the Challenge Panel.
- The extent and quality of additional customer engagement undertaken by Bristol Water in response to the IAP
- The impact of the IAP, and Bristol Water's responses, on the affordability of bills and the vulnerability of customers
- The effect of the IAP, and Bristol Water's responses, on the proposed delivery of outcomes for customers

The BWCP has reported directly to the Board on any material areas of challenge. They also advised on whether we had fairly represented customer views within our decision making process. The BWCP has provided a report of its findings to Ofwat.

The conclusions to this report were:

The Challenge Panel is pleased that Bristol Water has achieved 'Slow Track' status and a 'Targeted' assurance category as a result of the IAP. This represents a significant improvement from PR14 and reflects the company's efforts to improve its processes and governance.

The company's achievement in obtaining the Institute of Customer Service's 'Service Mark' accreditation following an evaluation of all of the company's processes, not just those that are customer facing, is welcomed.

The Challenge Panel is pleased to see Ofwat has recognised Bristol Water's proposed Social Contract initiative and that the company is pressing on with this at this time in the price review process. The Challenge Panel looks forward to assisting the company in the design and implementation of its Social Contract and in monitoring its success.
The Challenge Panel has undertaken an in-depth review of the IAP and Bristol Water's responses to it. Its review has concentrated on materiality of the impact of the IAP responses on customer engagement, customer service and customer bills.

The Challenge Panel considers that the additional customer engagement carried out by Bristol Water is appropriate and robust and that it meets the Panel's tests of best practice. The results of the engagement have been used appropriately, in conjunction with previous engagement outcomes in some cases, to reshape the PR19 Business Plan where necessary. Bristol Water has decided that further research into its social tariff cross subsidy should be undertaken over a longer timeframe in order to provide robust findings. The Challenge Panel agrees this is the best course of action.

Ofwat raised questions around the robustness of Bristol Water's approach to the triangulation of its customer engagement results. The Challenge Panel has reviewed the company's response to this and has been reassured that the methodology used was in line with industry best practice and went beyond this by testing point estimates with customers using objective surveys to better inform ODI rates.

Bristol Water has adopted Ofwat's newly-proposed industry wide reputational PC associated with the PSR. The Challenge Panel welcomes this as it will further benefit the identification of customers in vulnerable circumstances and the provision of assistance to them.
The Challenge Panel has reviewed the IAP questions relating to PCs and ODIs and Bristol Water's resulting changes to them. The Challenge Panel has been assured that the changes to PCs and ODIs do not alter the company's outcomes, priorities and promises made to customers in its original PR19 Business Plan. While some changes result in more stretching service level targets, some incentives are less rewarding and penalising, and others more so. This is due to the methodology used by Ofwat for the IAP.

Overall the Challenge Panel is satisfied that the changes arising from the company's response to the IAP will not materially affect customer service and that customer bills will remain materially in line with the results of the customer engagement undertaken originally for the PR19 Business Plan.

The Challenge Panel has received assurance from the Board of Bristol Water, via the Board's external assurers, that the company has given sufficient attention to the proposed changes in PCs and ODIs arising from the IAP and that these changes will not result in customers bearing additional financial or operational risk. The Board has also informed the Challenge Panel that the *outcomes, priorities and promised made in the Business Plan will be met and that the company will have sufficient capability and leadership to transform the company, its systems and procedures and its network to meet the efficiency challenges posed by Ofwat.*

Future role of the BWCP

The BWCP will continue to play a central role in challenging our performance and ensuring that our plans adapt to meet changing needs. One of the key things we have learnt during PR19 is the value we have gained from direct engagement between the Board and the BWCP. Their challenges covered not only plan content, but also Board governance over how the company would keep the trust of its customers and stakeholders. We have built this into our delivery and transparency plans through our social contract.

4.6 A plan driven by our Board

We are on a journey of transformation and our PR19 business plan is very different to our previous plans.

The past few years have been challenging for Bristol Water and the water sector as a whole. Since the last Price Review, which resulted in the "prescribed" status of the company under Ofwat's Company Monitoring Framework, we have responded with our Transformation Programme.

We have re-shaped our company to reduce costs, reflected in the 17% reduction to average customers' bills in 2015. At the same time, we have targeted ambitious improvements to our services, such as a 12% reduction in leakage targets by 2020, delivering a large metering programme and completing the Southern Resilience Scheme which was one of our largest ever investments.

On the occasions where our performance has fallen below our performance commitments, we have a full understanding of why and have acted quickly to recover the position. We have good knowledge of customers and our network, and have demonstrated we are resilient to unusual events. Therefore we are confident that our stretching targets for 2020-25 reflect our current and future customers' interests.

Since our last business plan in 2014, we have changed beyond recognition. We have a new management team in place and we have a new majority (80%) UK shareholder (iCON Infrastructure). Backed by long-term investors, iCON are well versed in owning and operating water and other regulated infrastructure, both within the UK and globally.

Our Board has also changed and established much stronger corporate governance and assurance of our plans. Our organisation, and our operations, have been overhauled and strengthened and we have carefully selected and recruited over 25% of current employees in the last three years. However, our transformation is by no means complete and we will continue to evolve over the coming years.

Although successful in delivering efficiencies so far, we have not yet met some of our challenging commitments to our customers. We are now embarking on a new phase of our transformation; developed from the ground up and with the right people, processes, and systems to deliver the range in improvements needed.

Our transformation will instil a commitment-based performance culture. We are implementing a new field-force management system, changing our supply chain to streamline our processes and bringing more accountability and control back into our organisation. The programme will result in a c25% increase in direct employee numbers, with improved skills and competencies that set customer experience as a core deliverable.

Our investment in end-to-end information technology will provide our customers with better experiences when they contact us. We are also developing our asset management capability and reducing the cost of operating our assets through innovative technical solutions such as artificial intelligence in water production to reduce the use of energy and chemicals. We are also investing in robotics process automation to reduce overheads. The Transformation Programme will deliver customer service improvements, in addition to £52m of new cost efficiencies by 2025 (around 9%), with around 80% delivered from 2020. This will ensure that we are prepared for delivering the challenging promises in our plan, and provide confidence to our customers and stakeholders on our ability to continue to deliver in the long-term.

Customer and community trust is a key issue, and we have been able to maintain this trust through our strong operational resilience. Our investors have supported our transformation by reducing gearing, through retaining equity. This means we have a strong financial platform on which to base the hard choices faced in this plan – these include the lower financing returns, the need to reduce costs further, and the service delivery challenges that we face. In the long-run, shareholders need to receive fair returns for their investment and support in the company, and ultimately for their investors who are pension schemes and insurance providers.

Our dividend policy sets out how actual returns will vary with performance, both cost and the stretching service levels that customers expect.

Bristol Water has developed, and consulted extensively, on a range of plan options. The draft business plan was approved by the Board, and the results of the consultation and subsequent research into the acceptability of the final plan informed the final decisions and assumptions that were approved by the Board. The Board also engaged with the BWCP, which had challenged the management and Board of Bristol Water not only to engage in new and innovative ways to develop our plan, but also to consider what the results mean for our on-going corporate governance and stakeholder engagement in the business.

Our final plan balances customer views on services and the environment against affordability in a way that is sustainable in the short and long-term. Reducing leakage and water consumption are long-term ambitions, but customer trust risks being undermined if this is done at a time of increasing bills. For metering in particular, a cornerstone of both these ambitions, compulsory metering is not acceptable to customers at this stage, and our plan does not require it. For some customer segments, such as social renters, they are the most price sensitive but also the most vulnerable to when services were challenged by events, such as supply interruptions. Customer and stakeholders were sceptical whether the ambitious performance improvements proposed could be delivered at a lower cost. The research on our final plan demonstrates customer support for the pace of change and bill profile we propose.

Meeting our legal obligations to the environment and water quality saw no contentious areas during our plan development and we can provide certainty to both our regulators and customers that this will continue to be the case. The DWI, EA and NE expectations will be delivered and are not a material factor for bill levels over 2020-25.

Our final WRMP includes our leakage and water efficiency targets that we consulted with customers on and has spare water available for future water trading, as well as being resilient to supply and demand uncertainty.

Although the nature of our plan means that new and emerging markets in the water sector are not central to its delivery, we have taken this into account in our water resource and demand management plans. It also forms part of our long-term ambitions.

The Board considered all aspects of long-term resilience in the trade-offs and choices made for the plan. These are summarised below.

Day-to-day resilience – after PR14 the company had to deliver service targets at a much lower cost and with a different investment framework than was assumed when performance targets were initially set. This took time to implement and some performance areas slipped as a result, causing performance penalties to be incurred. Learning from this experience, the Board explored the cost and service targets proposed for PR19 to ensure there was a clear and realistic plan on how both could be delivered. This also required extensive customer engagement to ensure research could accurately be reflected in decisions on investment. The targets are ambitious, and achieving all of them in every year is unlikely.

Long-term operational resilience – having completed the Southern Resilience Scheme, whether we would extend this protection to more communities and widen the scope of resilience from sources of supply, to critical aspects of the network.

Affordability and vulnerability – reducing the bill in real terms, and keeping nominal bills below 2015 levels are important, but not sufficient. As incomes change, we will continue to target social tariffs at all those eligible – our current range is good and we have zero water poverty after adjusting for these. However, around only 50% of those we think will be eligible for social tariffs are currently receiving this support, which means that they are at risk of falling into water poverty. Vulnerability for us means inclusive services, particularly in incidents, and meeting individual customer needs. For this reason, we will focus on the satisfaction of individual customers with vulnerability support. Our engagement has identified that this is a good measure of the reach of our extra care services, as customers are less likely to be satisfied when they only find out about the support we could have provided after the event.

Financial viability – the support of our shareholders has been essential to building our financial resilience and viability in recent years, and equity has been retained which has reduced gearing significantly. The trade-offs in our plan have been:

An investment programme focused on maintenance rather than the large enhancement programmes in our PR14 plan - given we no longer see the need for new water resources. This means the plan has revenues that reflect higher operating and maintenance cost, after efficiencies, and lower capital cost than our recent investment. This is the right approach for current and future customers.

Efficient delivery - we are confident we can set stretching efficiency targets of 8% immediately for wholesale capex and absorbing above CPIH cost pressures (c.0.9% p.a.) through innovations.

Similarly for residential retail we include c0.5% p.a. of net future cost inflation, after absorbing input price pressures through 1.5% p.a. of future efficiencies. Wholesale opex costs had less scope for future efficiencies on a whole life cost base, due to the low level of enhancement maintenance expenditure. We believe the total cost to current and future customers is efficient and is justified for the range of factors influencing our plan. For the revised plan we have reviewed our forecast of future efficiencies and cost increases against other sources of information in the IAP and company plans, and are committing to an additional efficiency challenge of 0.8% p.a. on base wholesale and retail costs. Our progress on transformation and what others in the industry are committing to delivering has informed this additional challenge above that in our original plan.

Intergenerational equity – we consulted with customers on intergenerational responsibility for total cost. This informed our assessment of the split of cost responsibility between current and future customers. This results in a change of PAYG rate from PR14, which is important for financial resilience.

Financing the efficient, additional cost of debt for a small, local supplier - this c£1.74 additional cost to customers in our plan is supported by them, is necessary for our financial viability and is justified by the service experience we provide. Our specific customer research clearly supports this view.

Maintaining actual financial ratios - this requires revenue to reflect the delivery of our plan assumptions, which are sustainable for the future. It is challenging because of the revenue adjustments due to our performance in 2015-20 that lower revenue in 2020-25 .

Stretching performance targets - the plan sets stretching performance targets with customers' support, in the context of falling bills, including our view of the lowest whole life cost of delivery. We tested a less stretching plan for a lower bill, but ultimately from a range of research and engagement, as well as long-term stewardship for the company, ambitious targets are justified. This is reflected in a balanced range of outcome incentives.

Annual incentive cap - for financial viability, we had to trade-off the annual impact from setting these stretching targets and incentives. While we are confident that our transformation has set us on the right course, we tested customers' appetite for positive and negative bill changes implied by our proposed performance incentives. Customers supported in-period incentives, so we rejected putting off performance adjustments until after 2025. For customer bill profiles and financial viability however, we propose capping annual revenue adjustments to bills for ODIs and C-MeX at £2.5m in any one year, whether positive or negative, with any remainder rolling over to future years. We present compelling evidence in our **revised C6 document** that this is required for both financial viability and reflects customers' views on incentives.

Notified item - we also had to consider a major water resource cost risk from Canal and River Trust (CRT) that is currently uncertain and to a large degree outside of our control. We believe it is too uncertain to include a cost allowance in customer bills "just in case", and our view is that we will be successful in defending this risk. However, to balance risk and return in our plan and financial viability, we propose specific protection, subject to Ofwat scrutiny at an interim determination, that we have done all we can to avoid this difficult and uncertain risk, which has wider implications for public policy towards water resources and water resource markets.

Financial ratios – we have undertaken extensive analysis and scenario testing to ensure we remain financially resilient and financeable in the long term. We include in our plan a number of risk mitigation and uncertainty proposals to ensure that challenges are manageable. We set out in our **revised C6 document** a summary of these considerations and highlight that given the impact of AMP6 incentive penalties and lower cost of capital, we are targeting a financial rating level for Moody's AICR reflective of Baa2 rather than our current Baa1 rating. This reflects the tight forecast ratios, whilst acknowledging that our low gearing, current performance, and low business risk supports our position.

Gearing benefit sharing - reflecting our own reduction of gearing since 2015 for financial viability, we adopt in our plan Ofwat's proposed benefit sharing should gearing increase above 70% (based on our gearing excluding the £12.5m preference shares).

Reflecting on our plan as a whole, we also include new commitments through ***"Bristol Water for All"***. We will reinvest our view of the value of the small company cost of debt if we do not deliver our key customer experience and community satisfaction commitments. This is a fair balance that reflects the ambition of our commitments to the long-term wellbeing of society and the environment.

Our plan is ambitious and given the hard choices we have faced in developing it, will be challenging to deliver. Based on our recent experience, we are confident in our ability to do so, and we will be able to adapt if interim targets are not met. It is the right plan for driving our business forward.

Further information on how the Board has driven our plan is provided in:

- **Chapter 13 of this document**
- **The revised Board Assurance Statement**
- **The revised Board Assurance Statement Supporting Evidence**

Checklist for our plan:

- ✓ **Built on customer trust**
- ✓ **Builds on current performance**
- ✓ **Efficient, ambitious and stretching**
- ✓ **Innovative community partnership model**
- ✓ **Clear set of customer promises**
- ✓ **Inclusive services**
- ✓ **5% reduction in bills by 2025**
- ✓ **Zero water poverty**
- ✓ **Bristol Water For All – our social contract**
- ✓ **Corporate and financial resilience**

5 Our continued journey

We continue the journey of transformation which we have been on since PR14, significantly reshaping our business to deliver improved and more reliable services at a lower cost.

5.1 Introduction

Since our business plan submission in September 2018 we have continued to push forward with our improvement plans and transformation programme, continuing to shape the business to ensure that the ambitious cost and performance challenges in our business plan can be met.

This programme of work is linked to our plans to close the gap in our resilience maturity assessment and in our response we provide examples of how these changes are taking effect and how the overall approach considers systems and interdependencies.

We have also continued to shape our social purpose and we have published our social contract as a means of continuing the debate of how we will achieve our 'trust beyond water' vision with our customers and with both local and national stakeholders, at the same time as contributing to the wider debate on sector legitimacy.

Our focus and the focus of our investors remains on the long-term. We have been serving our customer since 1846, and we aspire to serve our customers for at least another 173 years, responding proactively to their changing needs and to new challenges.

5.2 Our continued transformation

Bristol Water continues on its journey of transformation. Over the past few years we have significantly reduced costs and gradually improved performance. We recognise that we still have a number of performance challenges which need to be resolved in order to deliver our ambitious plan. Trust has been maintained with our local communities and customers, and we aim to be regarded as a leading organisation known to excel at customer experience and service in innovative and efficient ways. The trust of Ofwat and national stakeholders in our data, transparency and response to changes in the sector has, for a period of time, not been aligned with local views about the company. This is now changing, and we were recently nominated for "Water Company of the Year" at the Water Industry Achievement Awards.

Transparency from Bristol Water about its progress and response to operational challenges has been part of our effort to ensure that customers are at the heart of the changes we are making.

Our improvement in Company Monitoring Framework (CMF) status from "Prescribed" to "Targeted" also reflects another stage in improving wider trust in Bristol Water and our performance. Improving our "prescribed" Company Monitoring Framework status was viewed by the Board and management as critical to delivering our future ambitions.

Our transformation programme has continued and over the past six months has been reshaped to ensure a more direct link between our programme of change and our business plan commitments.

The programme is a central control-point for a wide range of improvement initiatives being delivered across the end of AMP6 and AMP7. Transformation provides our key delivery vehicle for the commitments we made in our Business Plan and provides a clear line of sight back to our Purpose, Vision and Mission, Strategic Objectives, and Values and Culture. This includes (but is not limited to) improving our customer service, operational performance, use of technology, and the way we collaborate with our supply chain and other partners.

Our core Transformation principle is that all initiatives have a clear line of sight back to the Business Plan, Strategic Objectives and Blueprint Design Principles. This core principle helps enable our transformation programme to be an accountable delivery vehicle that co-ordinates organisation-wide change initiatives. The programme is governed by a Steering Committee chaired by the CEO and made up of the Executive Directors from across the Business, each providing sponsorship for their respective areas. We have re-focussed our programme into four key pillars, putting greater emphasis on the values and culture of our company to deliver our purpose.

1. Values

Our values help us achieve our purpose, our vision, our mission and our strategic objectives. They describe who we are and who we want to be.

C7 / Track record of delivery

They are our compass and they help us navigate our journey.

2. Customer

Our Customer programme delivers on our Business Plan outcome of Excellent Customer Experiences (supporting our aim for Bristol Water to be Number 1 for Customer Experience). This is underpinned by extensive customer engagement to provide clarity on our customers' needs, and a robust prioritisation methodology to drive the sequencing of activities. The programme is made up of over 200 customer initiatives.

3. People

Our People Plan has been developed to identify and grow the core competencies and ways of working required to meet our Business Plan commitments by 2025. This includes Organisation Design, Leadership and Capabilities, Performance, Reward and Recognition, and Career Development.

4. Network Maintenance Supply Chain (NMSC)

Our NMSC programme will replace our existing Network Maintenance contract to ensure we can deliver the performance required for us to meet our customer and ODI commitments, and performance and efficiency targets identified in our Business Plan 2020-2025.

Our transformation programme is underpinned by a number of key enabling programmes, including our IT Vision 2025 programme, departmental improvement programmes and Outcome Delivery Strategies.

We have provided further information in **BRL.C7. Past Delivery and Transformation.**

Case study: Improving the operation of our network

Using innovative technology and systems we are continually adopting new ways of operating our water supply network. Our vision is that our focus and investment will lead us to managing a smarter water supply network than the one we currently operate.

Network Optimisation and Energy Management (NOEM) – a leading edge optimisation and scheduling system due to be completed by September 2019, which will revolutionise the way in which water is sourced and distributed to minimise energy and other costs whilst maintaining a resilient supply.

Pressure management optimisation – a three month project with Optimastics (a specialist firm of experts) to optimise our pressure management activities.

Prevention and control Of Discolouration in Distribution Systems (PODDS) - aims to maximise bulk water transfer options through Trunk Mains systems without causing discolouration at customer taps. The approach is based on 10 years of research by Sheffield University in collaboration with the industry. Trials have been completed successfully to date, with no interruptions to supply and no customer contacts throughout the operations. A project to implement the infrastructure required to manage the trunk mains network using the PODDS principles has now started.

Adaptive Network Area Management - We have been part of a long-term collaboration between a technology company with extensive experience in pressure control (Cla-Val) and a world leading research-led university (Imperial College London). A demonstrator (the "Field Lab"), operated by us, was implemented to test the development and integration of modelling, optimisation methods, and control technologies. The "Field Lab" includes three dynamically adaptive District Metering Areas, incorporating 7,900 customer connections and 59km of mains. A number of benefits have already been realised including leakage and burst reduction as well as a reduction in discolouration complaints.

Remote Data Loggers – In addition to our programme to install around 2,000 additional loggers, an upgrade of our existing loggers is now taking place which is increasing the frequency of sending information to every 30 minutes to facilitate real time monitoring and control of our network.

5.3 The evolution of our social contract

Bristol Water was established with a clear social purpose – to improve public health by providing water to the whole city of Bristol, rather than the wealthy few. Our founders were ahead of their time in recognising the link between clean water and social wellbeing, not only in terms of public health but also the ability to work and financial wellbeing.

We have set out our ambition to stay true to these roots,[6] recognising our continued privileged position as a trusted monopoly provider of an essential service and the opportunity that this provides to have a positive impact on the wellbeing of society. Our customers and stakeholders have told us that they expect our actions to go beyond those of a responsible private company and we understand that accountability for this positive impact is a key issue aligned to the level of trust which our customers and stakeholders put in us.

In our business plan submission in September 2018, we pledged to develop a social contract as a framework to formalise the delivery of this wider social purpose. We made a commitment to 'deliver demonstrable community benefit which high levels of customer satisfaction, transparent engagement and financial consequences should we fail to meet these expectations.[7] We set out the 'Bristol Water for All' sharing mechanisms which we linked to the delivery of our social contract.

[6] We first set this out in Bristol Water…Clearly, our Long Term Ambition for Excellent Water Experiences, February 2018.

Here we provide some additional narrative on why our social contract is a key part of our future strategy and also provide a summary of additional publications post our business plan submission in September 2018.

Our social contract as part of our systems thinking approach

Facilitating shared connections

Our customers and communities are examples of key external influences on our one of external systems, one which we have a very close interaction with, both in terms of the services that we provide, and through our employees, partners and suppliers who are part of our communities too. Our communities are not only geographical, but also functional groups with shared interests and connections. Our social contract focusses on our relationship with these communities and aims to build enhance connections and partnerships which foster a shared purpose for the wider benefit of society. These connections and shared value are is the foundation of social capital - the connections that link people together and lead then to exchange of knowledge and resources which and develops the trust and cooperation which is fundamental for a successful society to operate.

[7] Bristol Water for All, our plan to deliver excellent water experiences, page 10.

Addressing social challenges

Our analysis of the future challenges which we face as a water company found that social challenges, namely the rapid change to society and its wellbeing, are the most significant challenges that we face – in turn affecting what customers expect from their essential service providers (see Bristol Water…Clearly page 78). For example, several pieces of research from many sources predict that affordability challenges will increase in future. These challenges would be exacerbated in the event of an expensive solution to meeting future water demand. Skills gaps may also increase in the future, making it more difficult to meet the changing evolving recruitment needs of the company. At the same time, increasing water usage combined with climate change would have a negative impact on our local water environment and therefore on social and environmental wellbeing.

Our social contract provides a line of sight between these different challenges and attempts to understand connectivity and points of leverage where a single solution can deliver multiple benefits and address the connectivity through the solutions that we develop as a company. For example, by investing in education and training we can help to raise awareness of the value of water, as well as supporting social mobility and addressing skills shortages.

Natural capital thinking

Our social contract aligns with a natural capital approach by seeking to understand and prioritise activities which provide wider benefits linked to the social contract based on the wider benefits to natural, social and human capital. Our aspiration is to expand this framework to all the investment decisions which we make so that we fully embed societal and environmental issues and benefits into our core business model. Our Biodiversity Index is an important early step on our transition towards embedding a natural capital approach into our organisation.

Embedding our Social purpose through building trust for the long-term

The ICS/Bristol Water report "Social Contract for Water – evolution or revolution?" identified three steps to embed the Social Contract ideas, which we see as a parallel for a systems thinking approach because it reflects planning for trust beyond the basics of water supply (and its regulation). The three steps are:

1) Modernising governance for the evolving Social Contract - embedding this into the governance of water companies.

2) Building the shared connection to society – deeper embedding of local communities into company processes to enable them to hold companies to account and to really shape activities.

3) Decision making for the longer term - embedding this into the company's strategic decision making for the long-term, which in turn informs and shapes day-to-day operations on an on-going basis.

A forthcoming example of this thinking is our open innovation event on 24 April 2019, at which our innovative "The Workshop" incubator will select the next entrepreneur who will help us tackle our key challenges and grow their business at the same time.

Deliverability of future outcomes

We have mapped our social contract initiative options through to the impact that they have on the delivery of our performance commitments and other key targets. Our social contract is not therefore a disconnected 'nice to have', but a central part of our strategy to deliver our future commitments.

The social contract also has an indirect impact on the delivery of our performance commitments through increasing trust and legitimacy, which will enhance our credibility when asking customers to make behavioural changes to reduce water consumption.

Partnership working

Our social contract aims to deliver social value through partnership, defining success collectively to develop shared connections to society. In turn, these connections, can help to improve social wellbeing and amplify benefits through a sense of shared responsibility.

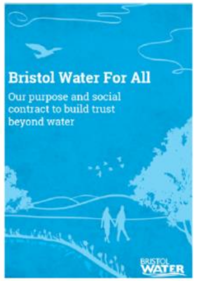
Evolution not revolution

In January 2019, we launched our social contract – a first for the water industry. Through our published documents, website content, series of blogs, ongoing customer research and stakeholder engagement events, we have establishing a discussion with both our customers and our local and national stakeholders to shape the future direction of our contract in doing so we are also actively contributing to the wider industry response to questions of the legitimacy of privately owned essential service providers. As part of this process, we have worked with ICS consulting to produce a thought piece on the ideology of the social contract and steps to implementation.

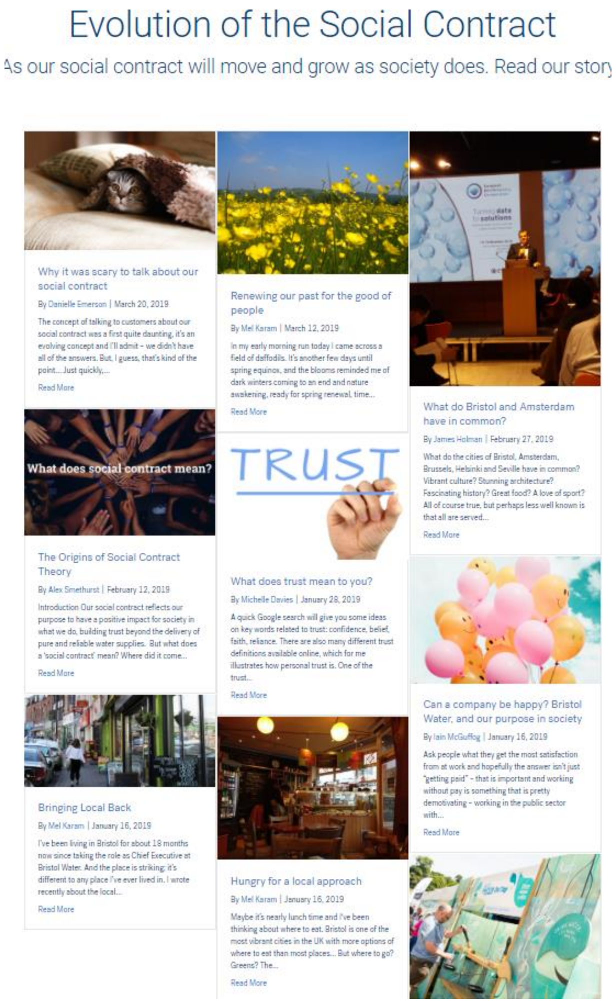
"The social contract between customer and company has to be rooted in a clear and transparent understanding of what water companies are in business to do (their purpose), who it is "they work for" (their citizens) and how they go about meeting society's expectations (their social contract). These are the factors that can solidify an enduring public consent for water companies."

Social Contract for Water: Evolution or Revolution, ICS Consulting and Bristol Water, February 2019. Page 16.

Documents: Social Contract for Water: Evolution or Revolution? and Bristol Water for All: Our Purpose and Social Contract to Build Trust Beyond Water



Our social contract blogs are published on our website.



We have also started a conversation on twitter using #hydrosocialcontract.

Michelle Davies @Michell63205974 · Feb 8
Great to see so many people last night at the @bgreencapital @BristolWater green mingle last night. Thank you for all your kind words and support for our **#hydrosocialcontract**. We've got lots of new ideas and partnerships to follow up on! Working together for our communities.

Bristol Water @BristolWater · Jan 29
What does trust mean to you? Why does trust matter? #bigquestion #Questions #Trust #socialcontract **#hydrosocialcontract** #blog bit.ly/2DHF0cC

Michelle Davies @Michell63205974 · Mar 4
A great example of our #hydrosocialcontract in action - educating future consumers on water efficiency, whilst also inspiring young people in their future careers - hopefully many will be inspired to work with us in the future @Bristolwater

Gary Schlick @Head_BDS
Great start to #ncw2019 Thanks to @BristolWater for putting on such a wide range of activities.

Happy-Steve @HappySteve7 · Mar 11
Always a privilege to see a Peregrine at Chew Valley. A special site for many reasons. Great photo Bri Thompson, our thanks to you sir! @BristolWater #morethanwateratorage **#hydrosocialcontract**

Bri Thompson @bri66thomp
Peregrine making it's getaway with it's catch from Moreton, Chew Valley Lake, @karleburford @l33dtn @bristolbirding

Happy-Steve @HappySteve7 · Mar 1
Happy Steve enjoying a super evening launching Bristol Water's new social contract. Great to partner with the fabulous people, communities and organisations of Bristol. Big challenges to work together to tackle...let's get into it! **#hydrosocialcontract** #proudtoworkforbristolwater

Bristol Water @BristolWater · Feb 21
Our old newsletters and memorabilia are popular with our water mingle guests #waterstories **#hydrosocialcontract**

Our social contract framework

On 16 January 2019, we published '[Bristol Water for All, our purpose and social contract to build trust beyond water]'. Below we summarise the key elements of this document.

Our social purpose

We have defined our social purpose as:

To have a positive impact on the lives of our customers, our communities, our colleagues and on the environment, beyond the delivery of pure and reliable water.

We set out how our social purpose was established over 170 years ago by our founders and how throughout history, our employees have continued that purpose through their passion in what we do and through their local connections with our communities.

We recognise that although we have continued to deliver our social purpose through a range of individual initiatives which often developed from the passion of individual employees, this process needed structure and clear lines of accountability to ensure that it formed a coordinated and targeted programme. We see a social contract as a framework that will provide assurance of how we deliver services which go beyond the basic requirements of competitive markets, regulation and corporate social responsibility, to have a positive impact on the wellbeing of society.

It is our view that a social contract must be formed through a local relationship with communities, rather than the national frameworks which often inhibit trust through lack of transparency and direct customer participation. It also has to be supported by the culture of the organisation, which is why we have recently launched our new company values, which underpin our social purpose.

The role of our social contract

Our social contract goes beyond corporate social responsibility (CSR) (see Figure 18), by connecting the company's actions to its commercial success. We believe that this contract aligns the legitimate role of profit and reward for shareholders with the wellbeing aspects of our purpose. This links to changes to corporate governance as part of the required changes to transparency and accountability.

The aims of our social contract

The aims of our social contract presented in Figure 19 show how it is not only focussed on social wellbeing but also on:

- Customer, stakeholder and employee participation
- Clear and transparent accountability for the decisions we make
- Fair and transparent policies
- Innovation in response to societal challenges
- A means for holding us to account for the promises we make in relation to the benefits of being a small and local company*

* Our commitment to our social contract is not dependent on Ofwat's PR19 decision on the small company premium.

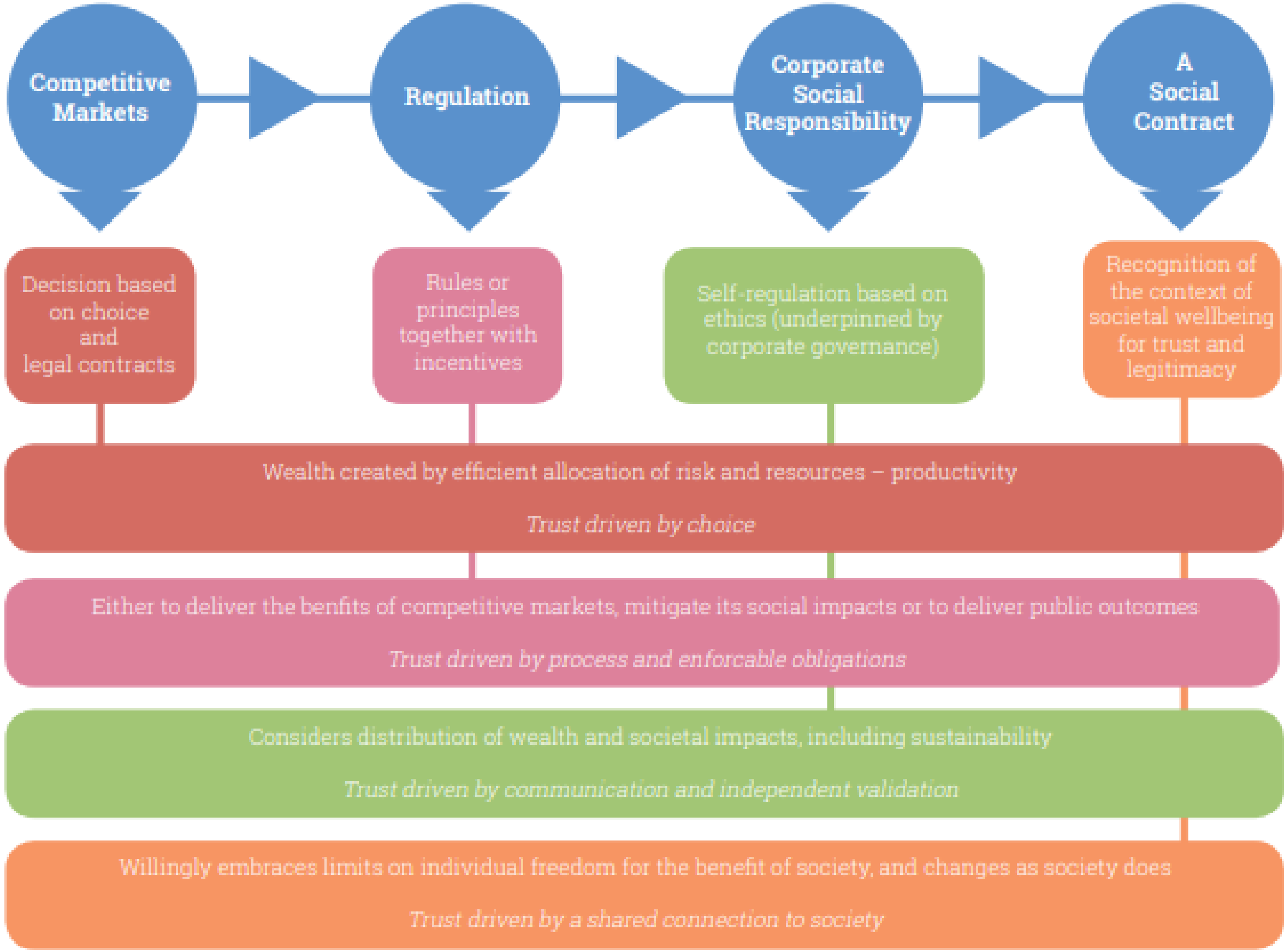


Figure 18: How our social contract goes beyond corporate social responsibility

THE AIMS OF OUR SOCIAL CONTRACT

- The delivery of wider societal benefits in a way which contributes to resolving the key issues which society faces
- A framework for engaging with our local communities to understand their evolving needs beyond water, to assess how and where we can add social and economic value through the services that we provide
- A transparent mechanism by which our customers, stakeholders and employees influence the decisions which affect our local communities
- A process which ensures that Board level decisions focus on wider societal impacts and benefits of our activities
- Fair and transparent policies, communications and ways of working which help to engender customer trust
- An approach which promotes innovation in response to societal challenges, and complements both markets and regulation.
- A means of holding us to account to deliver the benefits of a local company, with financial consequences related to the cost to customers if we fail to perform on our social contract

Figure 19: The aims of our social contract

The process we will follow

Key parts of the process are as follows:

- We will develop our contract through an agreed set of local community initiatives, linked to our 'Bristol Water for All' mechanism. This provides accountability for the delivery of a specific set of initiatives, each of which provides a wider benefit to society.
- Delivery of the social contract will be overseen by the Bristol Water Challenge Panel (see Figure 20), with a formal process for adding, removing or revising initiatives. The Bristol Water Challenge Panel will continue to be independent to the company and will challenge all aspects of our performance, both in terms of accountability and transparency.
- We have a specific independent non-executive director (Jim McAuliffe), who has been appointed because of his links to the local community. He will ensure that both employee and community voices remain heard at the Board, and will act as a point of engagement for the Bristol Water Challenge Panel.
- Each initiative will have a Terms of Reference, which sets out the objectives, benefit targets, method of measurement, resource plan (people and budget) and key stakeholders with shared benefits. We plan to develop our measurement of benefits so that natural, social and human capital is considered as part of our decision making process, through working in partnership with others
- Customer participation through active engagement and transparency of approach and performance will be used to inform and test our plans (see Figure 20).
- Our initiatives will be delivered through the passion and ongoing commitment of our employees. Our Brainwaves approach (part of our Innovation platform) will encourage our employees to feed into innovations which support the delivery of our purpose.

We will measure the success of the social contract through separate measures of customer and stakeholder satisfaction, with a link to a financial sharing mechanism. Further information on the sharing mechanism is provided in Chapter 12.

Linked to our social contract, we have made a number of changes to our approach to Board governance. These respond to Ofwat's 'Putting the Sector back into balance' consultation and final report (for further information see section 13.5).

Figure 22 below gives an overview of the ongoing process for our social contract.

Figure 20: Participants in our social contract

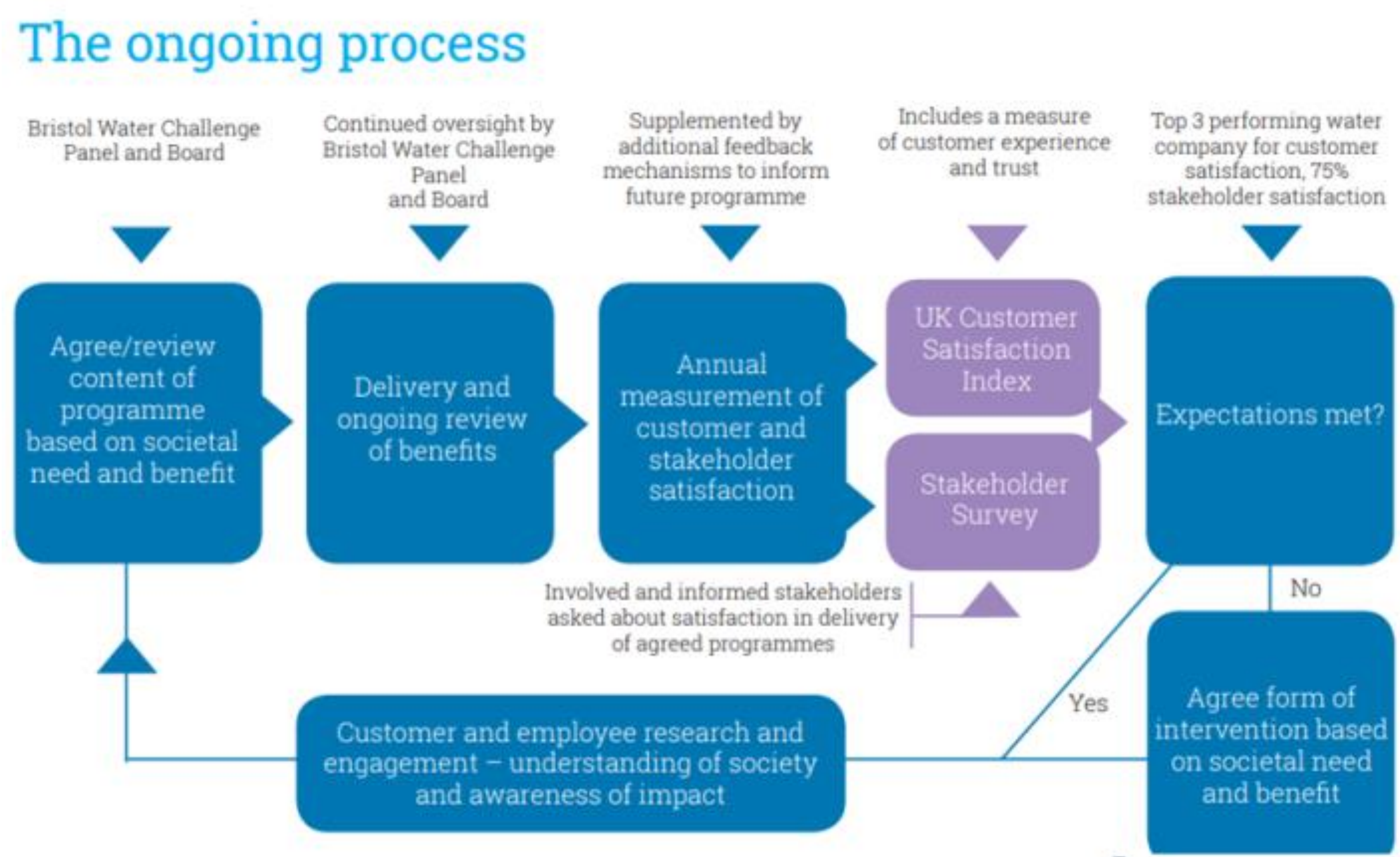


Figure 21: The ongoing process of delivering our social contract

The initiatives

Our social contract is linked to a specific and controlled set of initiatives, prioritised based on their contribution towards our performance commitments and the social value that they deliver. The initiatives fall into a number of themes (Figure 22) and are being developed and refined through conversations with customers and stakeholders.

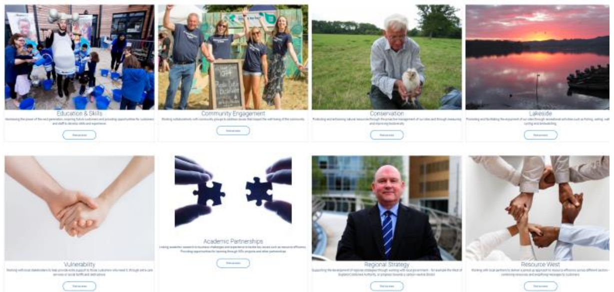
Programme	Description
Academic Partnerships	Linking academic research to business challenges and experience to tackle key issues such as resource efficiency. Providing opportunities for learning through MSc projects and other partnerships.
Community Engagements	Working collaboratively with community groups to address issues that impact the wellbeing of the community.
Conservation	Protecting and enhancing natural resources through the proactive management of our sites and through measuring and improving biodiversity.
Education	Inspiring current and future customers and providing opportunities for customers and staff to develop skills and experience. Influencing resource efficiency behaviour to bill-payers through harnessing the power of the next generation.
Lakeside	Promoting and facilitating the enjoyment of our sites through recreational activities such as fishing, sailing, walking, cycling and birdwatching.
Regional Strategies	Supporting the development of regional strategies through working with local government – for example the West of England Combined Authority, or progress towards a carbon-neutral Bristol.
Resource West	Working with local partners to deliver a joined up approach to resource efficiency across different sectors – combining resources and amplifying messages to customers.
Vulnerability	Working with local stakeholders to help provide extra support to those customers who need it, through extra care services or social tariffs and debt advice.

Figure 22: Initiatives of our social contract

We see these initiatives delivering a range of benefits, including:

- Encouraging efficient use of resources.
- Addressing water poverty and vulnerability across different sectors through helping us to target our resources effectively.
- Education and engagement of future customers, including careers.
- Providing free public access to drinking water.
- Reducing the use of single-use plastics.
- Proudly sharing our history and providing public access to the wealth of heritage resources, which we possess.
- Providing recreational facilities to share enjoyment of our lakes.
- Conserving and enhancing our natural environment.
- Developing academic and community partnerships to share knowledge and resources and to amplify the benefits of what we do.
- Feeding into local government strategies for water, food, energy and waste.

More information can be found on our website.



Ongoing customer and stakeholder engagement

Our social contract has evolved through conversations with customers and stakeholders. After publishing our proposed social contract approach, we have continued to engage with customers and both local and national stakeholders to help us to refine our approach and to prioritise activities within our social contract.

Engagement through our customer forum

In our latest customer forum in February 2019, we sought the views of our customers in relation to our social contract. The purpose of the session was to:

- To understand customer views on our social contract.
- To understand customers priority areas for our social contract activities.
- To understand how we can refine our list of activities and where to prioritise the focus.
- To jointly develop our approach to customer participation on the social contract.

Customers responded very positively to the concept of social contract and felt passionately about some of the initiatives which were discussed. We asked customers to help prioritise the programmes which we had identified as part of the social contract, and then to prioritise the initiatives which form part of those programmes. Customers used 'wild cards' to add to our programmes or initiatives where they felt that any were missing.

Before revealing our initial programmes to customers, we asked them to think about what types of activities should be included within our social contract (Figure 23).

Figure 23: Customer views on issues to be included in our social contract

We then revealed our initial thinking on our eight programmes and asked customers to prioritise them as individuals and then as a group (Figure 24). There was clear preference in all groups towards education, vulnerability, community engagement and conservation.

Some participants did not add any red dots as they felt all eight were important. Those who did least prioritised regional strategies, academic partnerships and Resource West.

Building on the excellent feedback gained during the session we asked customers how they would like to be involved in the future.

Customers stated that they would like to be involved in our social contract development via the customer forum in the future. Some customers requested to be personally involved in helping us to deliver our initiatives.

Yellow		Blue	Red		Green		Overall
Vulnerability	Vulnerability	Education	Education	Vulnerability	Education	Education	**Education 11**
Education	Education	Conservation	Vulnerability	Conservation	Vulnerability	Vulnerability	**Vulnerability 15**
Academic.	Community Conservation	Lakeside	Community	Education	Conservation	Conservation	**Conservation 22**
Conservation		Academic	Regional Strat.	Academic.	Community	Community	**Community 30**
Lakeside	Resource west	Community	Resource west Conservation	Community	Regional Strat. Resource west	Academic.	**Academic. 38**
Community	Lakeside	Vulnerability		Lakeside		Lakeside	**Lakeside 40**
Regional Strat.	Academic.	Regional Strat.	Lakeside Academic.	Resource west	Lakeside	Resource west	**Resource west 45**
Resource west	Regional Strat.	Resource west		Regional Strat.	Academic.	Regional. Strat	**Regional Strat. 47**

Figure 24: Customer preferences on our social contract programmes - NB The groups were named by colours, all groups but one split into two smaller groups for this exercise.

Our documentation of this research is provided in **A3e. Customer Forum February 2019.**

Engagement through our social contract event

On 28 February 2019 we launched our social contract with local and national stakeholders at Bristol Zoo, another organisation with a long history in Bristol and also some interesting joint history with Bristol Water.

The evening proved to be a great stimulus for ideas and passion to help tackle some of the biggest issues facing our society today, with over 50 attendees from across the water industry – including Ofwat, the EA, other water companies and industry influencers. We were also delighted to be joined by Bristol's business and community leaders with attendance from Bristol Energy, Business West, UWE and the South West CBI as well as independent local leaders and dignitaries such as Tim Bowles (West of England's Combined Authority Mayor) and Peaches Golding OBE (our BWCP chair, the Lord Lieutenant of the County and City of Bristol).

The event was a great success; we focussed our discussions on what the social contract means for accountability, the environment, consumer trust, innovation, supply chains, education and influencing our next generation of consumers. We also heard from our partners City to Sea regarding our work on Refill and Bristol Green Capital Partnership on our collaborations with them. We have used this information to help to shape our social contract and we were pleased to able to contribute to the national debate too.

A summary of the event has been published on our website.

Case study – Bedminster Down School

As part of our growing community education programme, we have launched an education partnership pilot with our neighbours, Bedminster Down Secondary School. We worked closely with the school to deliver a careers day aiming to raise aspiration and awareness of the wide range of possible future careers.

On 4th March 32 staff attended to deliver a range of lessons and a careers carousel to all year 9 pupils. We received very positive feedback from both pupils and staff. Through this pilot education partnership we are learning how we can best provide value to schools and consider rolling this out across local education trusts.

A video summary is available here:

https://www.youtube.com/watch?v=suVjN4kJCZQ

Case study - our Youth Board

Over the first few months of this year, we ran the Bristol Water Youth Board. This was the second year of bringing a group of 20 six formers from a number of different schools across our supply areas together as one Board. We get huge value from their involvement in helping us to plan for the future, with the Youth Board bringing a unique perspective, representing our future customers. For the 20 individuals who joined the board, they gained experience of working on a real business project with a new group of people. Their voices were heard at an executive level and this provided them a unique opportunity to kick start their career in the world of business.

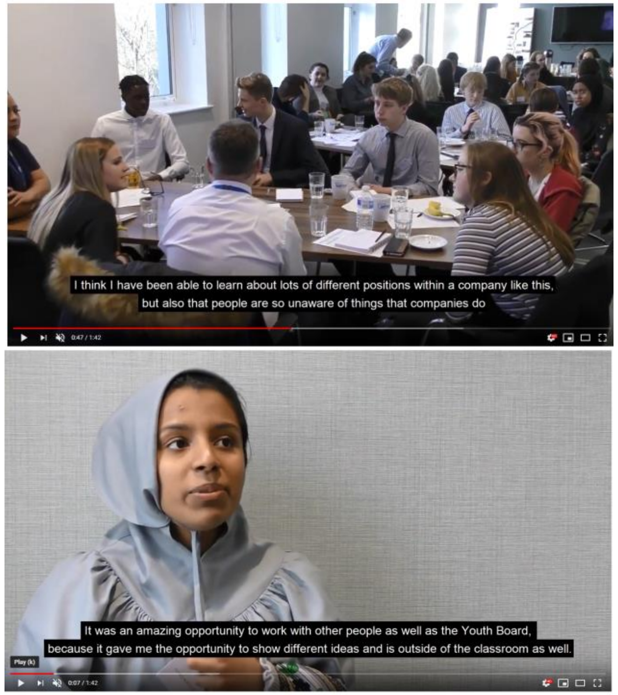
The challenge we presented the Youth Board with this year was to develop a strategy for building our brand and profile to increase trust in the community. A challenge closely linked to our social purpose and social contract.

They rose to the challenge brilliantly, with the five groups presenting back a diverse range of ideas, which were practical as well as innovative. We are now using these ideas to shape our brand strategy.

The Youth Board presents an opportunity for us to engage with future customers over time, mapping the journey to becoming a first-time customer and understanding needs at key life stage 'firsts' such as living independently, bill sharing, setting up home and managing finances. We are exploring ideas around a longitudinal project with the Youth Board and the ambition is to start this in Summer 2019.

A video summary of this year's board is available here.

https://www.youtube.com/watch?v=JLd3BjBThbg



Youth Board 2019

Working with stakeholders

To deliver our social contract we will need to work in partnership with a number of stakeholders to share knowledge, resource and skills and to amplify the benefits to our communities and to foster shared ownership for community wellbeing issues.

We have mapped our initial set of initiatives to the key stakeholders who we will need to work with, and set out a mapping framework for how we expect this work to benefit the delivery of our outcomes. Using this framework, we are already working with the majority of these groups to develop and refine our plans and to establish our terms of reference, to make sure resources of all partners are targeted in the most effective way.

Case study - our social mobility pledge

The area which we serve is diverse and includes some areas with high levels of deprivation.

As part of our social purpose, we are committed to using our time and resources to support social mobility and as part of this commitment we have signed up to the national social mobility pledge.

Our social contract initiatives will be targeted to deliver this pledge. As an example, we have committed to work with our local partner Ablaze, an independent charity tackling inequality of opportunity for young people in the West of England.

Spotlight: Bristol Green Capital Partnership

Our social contract provides a framework for the views of stakeholders to feed into how we deliver our social purpose and makes this challenge one which is shared with the wider business community. An example of how this will be achieved in practice is through working with the Bristol Green Capital Partnership (BGCP).

BGCP is a unique partnership of more than 850 member organisations who have all committed to working towards a sustainable city with a high-quality of life for all. Recognising the benefits of working together to achieve common goals which contribute to the wellbeing of society and the environment, Bristol Water has recently become a supporting member of the Partnership.

The benefits of this partnership approach were demonstrated at a local social contract launch event, at a BGCP 'green mingle'. The event was well-attended by a wide range of local stakeholders who generated a large number of new ideas on potential opportunities to work together to achieve common goals which contribute to the wellbeing of society. We are following up on a number of these opportunities. For example, since meeting at this event, we have had a follow up discussion with Bristol University on its resilience modelling, and how we can use the long history and data of Bristol Water to build a water resilience model for places with less history, and learn from them in return.

A particular area of focus for these local partnerships in the future is to achieve joined up thinking and delivery on programmes relating to resource efficiency, which will contribute to resilient supplies of water and energy and reduced waste production in the future.

5.4 The long term focus of our journey

Our social contract goes beyond the requirements of regulation, markets or Corporate Social Responsibility because we want Bristol Water to thrive for the next 173 years (at least). But we can only do this by continuing to modernise, and we think the best innovations come, as Bristol Water facilitated in its early history, from shared social, economic, human and environmental challenges.

By setting out our long-term ambition we identified a strong sense of what customers will trust in the future, and how to build this trust for the next generation. With our focus on this purpose, and how it shapes our culture and values, we will build a better understanding of what is shaping society, and our influence over it. Water is a public health and environmental service, but is inevitably about people. We believe our approach to the social contract will build better ways of delivering our core water supply and customer experience role, by engaging people on how we deliver. That is our long term strategy for trust and long term planning for resilience. It will not be easy, and we are not glib about the challenges we face. However we believe our approach is what our customers and communities expect from us.

5.5 Update on our performance in 2015-20

In Section C7 we provide an update on our performance.

We have had a number of water supply interruption events in the past 12-18 months, including the "Freeze-Thaw" events of March 2018. We have improved our response to incidents so we maintained customer trust, were pleased this was recognised in Ofwat's review of the "freeze-thaw" event, and agree that whilst we performed well in this incident there remains more to do. We appear to have maintained customer trust recently, as illustrated by the July 2018 UKCSI rankings. We remain the top water company with a score of 79.6 (up from 77.4 in January 2018), above the UK all-sector average of 77.9, and we also have the top utility net promoter score and are the most trusted utility in this survey. Our position near to the top of the UKCSI rankings was maintained in January 2019, despite the challenges we have faced in dealing with a range of customer complaint areas over the last year.

We recognise that our performance during this AMP raises concerns over the deliverability of our challenging performance targets.

In **BRL.C7. Past Delivery and Transformation**, we provide further evidence to respond to the concerns raised in the IAP. The document provides key information on our business wide programme of Transformation and Outcome Delivery Strategy Summaries. These strategies provide evidence of our understanding of the drivers of past performance, together with our action plans to address areas of poor performance.

We include case studies provide evidence of what the Board are doing now, and how this provides confidence in the delivery of our future plans. We will not meet every target, as the plan is stretching, but customers are protected through the incentives and other mechanisms such as our social contract which we are accountable for.

The development of our Outcome Delivery Strategies has focused on the areas of greatest performance challenge, and where a change is required across our business to ensure that we deliver our customer promises. This prioritisation has undergone full executive review. We have summarised our Outcome Delivery Strategies for; leakage, supply interruptions, metering and customer experience. Alongside the summaries we have also provided case studies demonstrating the improvements we have made to date.

Financial adjustments for AMP6 performance

We have updated our assessment of our performance over 2015-20 to take account of our latest forecast performance in 2018/19 and 2019/20 for those measures which have an impact on financial penalties. We set out the factors impacting in our performance in the first half of the year in our latest mid-year performance report which was published in November 2018. The key changes from our September submission are:

- **Unplanned customer minutes lost** –We now forecast performance of 16.7 minutes per property compared to the target of 12.5. This means an additional £0.7m penalty due to missing the target for 2018/19.
- **Leakage** - Our leakage performance has improved in 2018/19 through a combination of targeted investment, improved monitoring and a proactive approach to leakage management, and we expect it to improve further in 2019/20. We now expect to meet our actual leakage targets for both years, but will still incur a penalty on ODI leakage for 18/19. Forecast leakage penalties have reduced by £2.4m.
- **Metering** – Metering levels have been lower than expected, in particular as a slowdown in the housing market limits the level of change of occupier metering, and we are now forecasting a lower level in 2018/19, which will cause us to miss our target in 2019/20, with forecast performance now at 64% versus the target of 65.9%. This results in an additional penalty of £72k.

These changes are included in Figure 25 overleaf. Further details of the adjustments made in respect of AMP6 performance are set out in our revised Section C7.

We have outperformed on wholesale totex and sold surplus land, which both reduce bills through a 50% sharing rate. We have also updated our revenue calculations in line with our latest tariffs, which slightly increases the residential retail adjustment. The adjustments for 2015-20 performance are shown in Table 2 split between revenue and Regulatory Capital Value (RCV).

We will provide a full update to our AMP6 performance in July 2019 alongside our APR for 2018/19. We note Ofwat's request in action **BRL.PD.A3** for further evidence in relation to the forecast for the following performance commitments (by 15 July 2019):

£m (17-18 CPIH prices)	Original plan		Revised plan	
	Revenue	RCV	Revenue	RCV
ODIs	-9.5	-0.8	-7.6	-0.8
Wholesale totex	-2.3	-6.1	-2.6	-8.2
Wholesale revenue	+2.5	-	+2.5	-
Residential retail revenues	+0.3	-	+0.4	-

Table 2: Adjustments for 2015-20 performance for revenue and RCV

- D1: Mean zonal compliance (MZC)
- E1: Negative water quality contacts
- A2:Asset reliability – infrastructure
- A3:Asset reliability - non-infrastructure
- F1:Leakage
- A1: Unplanned customer minutes lost

We will provide this specific information along with commentary on all our performance commitments within our APR submission in July.

In Figure 25, we summarise our actual and forecast performance for 2015-2020. Performance commitments that were not met are shown in amber shading and those where ODI penalties are incurred are shown in red shading.

Performance Commitments	Unit	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Forecast	2019/20 Forecast	Revision to Forecasts since Sep 2018?	Revised AMP 6 Forecast Rewards/Penalties £m (12/13 prices)	Original (Sep 2018) AMP 6 Forecast Rewards/Penalties £m (12/13 prices)
Unplanned customer minutes lost	Minutes/ prop/ year	15.5	13.1	73.7	16.7	12.2	Yes	-£2.2m	-£1.5m
Asset reliability - infrastructure	Improving, Stable, Marginal, Deteriorating	Stable	Stable	Marginal	Marginal	Stable	No (but bursts sub-indicator has been revised)	-£0.7m (RCV)	-£0.7m (RCV)
Asset reliability - non-infrastructure	Improving, Stable, Marginal, Deteriorating	Stable	Stable	Stable	Stable	Stable	No	nil	nil
Population in centres >25,000 at risk from asset failure	Population	288,589	288,589	9,063	9,063	9,063	No	nil	nil
Security of Supply Index (SOSI)	Score/100	100	100	100	100	100	No	n/a	n/a
Hosepipe Ban Frequency	Days	1.5	3.1	3.1	4.6	4.6	No	nil	nil
Mean zonal compliance (MZC)	%	99.93	99.97	99.93	99.99	99.96	Yes	-£0.6m	-£0.6m
Negative water quality contacts	Contacts/ year	2329	2162	1,711	2,275	2,221	No	nil	nil
Leakage	Ml/ day	44.2	47.4	49.6	46.5	43.0	Yes	-£3.2m	-£5.6m
Meter penetration	%	47.3	49.3	52.7	56.3	64.0	Yes	-£0.6m	-£0.6m
Total carbon emissions	kgCO2e/ person	35	32	28	38	38	No	n/a	n/a
Raw water quality of sources	% of AMP5 baseline aggregate of algal bloom frequency (previously text)	+20% (Deteriorating)	+11% (Deteriorating)	-1% (Marginal)	-1% (Marginal)	-1% (Stable)	No	n/a	n/a
Biodiversity index	Index score (previously text)	17649 (improving)	17650 (improving)	17657 (improving)	17658 (improving)	17659 (improving)	No	n/a	n/a
Waste disposal compliance	%	96	96	98	96	96	No	n/a	n/a
Per Capita Consumption	l/h/d	141.1	144.1	144.5	142.8	142.0	No	n/a	n/a
Customers in Water Poverty	%	0.4	0.9	0.0	0.0	0.0	Yes	n/a	n/a
Service incentive mechanism (SIM)	Upper Quartile for previous year (previously 'top 5')	85.1 (5th)	85.9 (6th)	83.4 (10th)	85.4 (Top 5)	87.2 (Top 5)	Yes	nil	nil
General Satisfaction from surveys	%	83	86	87	93	93	No	n/a	n/a
Value for money	%	70	72	69	72	72	No	n/a	n/a
Ease of contact from surveys	%	95	94.4	93.1	96.5	96.5	No	n/a	n/a
Negative billing contacts	Contacts/ year	2,301	3,096	2,300	2,240	2,170	No	n/a	n/a
							Total RCV	-£0.7	-£0.7
							Total revenue	-£6.6	-£8.2

Figure 25: A summary of our performance over 2015-20

6 What we plan to deliver

*Our "**Bristol Water for All**" **wheel** sets out how we plan to meet our customer priorities. We have set ourselves stretching targets to deliver the service improvements that our customers value, while reducing bills by 5% by 2025.*

6.1 Introduction

The core components of our plan were shaped by significant engagement with customers and stakeholders and do not alter as a result of the IAP. We have made a number of more minor targeted changes to specific performance commitments – changing performance values for three,[8] adding in two additional performance commitments and revising the incentive rates for a number of outcome delivery incentives in response to the challenges and additional evidence available through the IAP.

In this section we have, for clarity, retained an explanation of the components of our business plan and how these fit together to meet the expectations of our customers. We highlight where assumptions in relation to individual performance commitments have changed. Detail on the reasons for these changes and evidence to support our response to individual outcome action is provided in our revised **C3 document.**

[8] Including a change to our Drought Risk Index due to a technical change to the reporting methodology

6.2 Our Bristol Water for All wheel

Our "**Bristol Water for All" wheel** (overleaf) shows how our plan is:

- Founded on our five customer **priorities;**
- Communicated through our ten customer **promises; and**
- Aligned to the delivery of our four **outcomes** (three customer facing outcomes and one, Corporate and Financial Resilience, which supports all the others).

In addition, our plan is measured and incentivised through our 28 **performance commitments and associated ODIs** (including two additional performance commitments compared to our original plan).

The ***"Bristol Water for All" wheel*** is designed to be enduring, presenting how we plan to deliver customers' needs over the long-term. It also addresses the expectations the Government and our regulators have of us. The three Ofwat themes of customer service, resilience and affordability feature prominently within the components of wheel.

The fourth theme of innovation is a key part of both our current and future delivery approach.

In this chapter we provide a summary of our plan and the changes at a detailed level in response to the IAP.

Customer priorities and promises at the heart of our plan

6.3 Our five customer priorities

Our five customer priorities reflect their top priorities and have been developed and refined over time through our extensive customer engagement. These priorities drive our plans.

6.4 Our ten customer promises

For ease of communicating our plan, we have summarised the commitments to ten promises based on those things which matter most to our customers. These promises link directly to the five customer priorities.

6.5 Our four outcomes

Our outcomes interconnect to deliver customer excellence for the wellbeing of society, our communities and the environment through linking our product, our service, and experience

6.6 Our 28 performance commitments

We deliver our plans through a series of performance commitments, developed through consultation with our customers and guided by Ofwat's Final Methodology. These set stretching targets which are founded on customers' priorities and the value that they attribute to service improvements.

Our performance commitments include common metrics for the industry that Ofwat expects us to include in our plan as well as bespoke commitments which reflect the major areas of essential investment. These also match our legal obligations, to target long-term health or our assets, and to reflect customer service priorities, in particular where there is a strong Willingness to Pay (WTP) for improvements. As industry performance changes (such as our top quartile target for supply interruptions), or where events happen, it is unlikely all targets will be met each year. We will respond effectively as challenges arise.

The targets in our plan for the areas that customers care most about deliver performance amongst the best in the industry ("upper quartile") or better at the start, and in some cases may push the frontier of the industry forward by 2025. To do this, in some cases such as supply interruptions, we have to take a step change in performance by changing how we operate. In other cases, such as the taste and odour of drinking water, we deliver this through better information to customers.

We have added in two additional performance commitments in response to the IAP. These are the industry wide performance commitment on our Priority Services Register and a bespoke commitment for the measure of retailer experience – 'R-Mex', see Figure 26.

Five of these measures are specifically related to asset health Mains bursts, Unplanned outage, Turbidity, Unplanned maintenance – non-infrastructure and Properties at risk of low pressure. These measures allow us to monitor the condition of our assets and ensure that this remains stable over time.

For a summary of targets against each commitment see Table 3 on the next page. Further information is provided in Chapters 7-9.

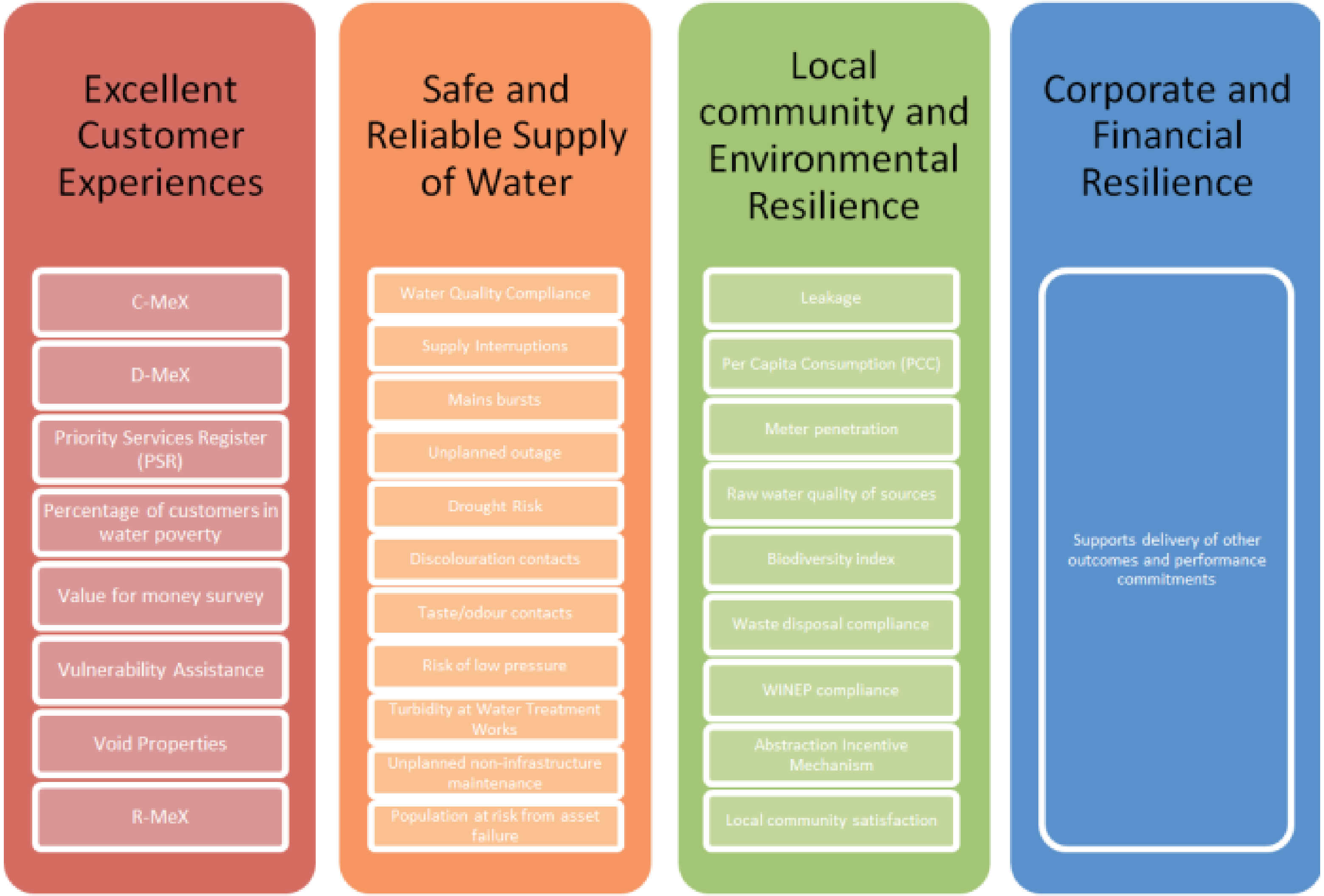


Figure 26: A summary of our commitments

Table 3: Summary of the performance commitment targets and incentive values included within our plan

Outcome	Performance Commitment (PC)	Unit	2019-20 Performance	2024-25 Target	2030 Target	2050 Target	Incentive	Maximum Out-performance 2020-25 (£m)	Maximum Under-performance 2020-25 (£m)
Excellent customer experiences	Customer measure of experience (C-MeX)	C-MeX score	TBC	TBC	TBC	TBC	Out and under	10.8	-10.8
	Developer services measure of experience (D-MeX)	D-MeX score	TBC	TBC	TBC	TBC	Out and under	0.4	-0.8
	Priority Services Register	%	1.6	7.0	7.0	7.0	Reputational	-	-
	Percentage of customers in water poverty	%	0.0	0.0	0.0	0.0	Reputational	-	-
	Value for money	%	72	83	86	90	Reputational	-	-
	Percentage of satisfied vulnerable customers	%	85	85	90	100	Reputational	-	-
	Void properties	%	1.9	1.8	1.8	1.8	Out and under	0.1	-0.2
	Retailer measure of experience (R-MeX)	%	n/a	93	93	93	Reputational	-	-
Local community and environmental resilience	Leakage (annual)	Megalitres per day (Ml/d)	43	36.5	36	35	Out and under	9.4	-7.9
	Per capita consumption (PCC) (annual)	Litres per head per day (l/h/d)	142	135	128.75	110	Out and under	1.6	-1.6
	Meter penetration	% metered supplies	65.9	75	82.5	90	Out and under	1.9	-1.8
	Raw water quality of sources	Kg of P loss	0	531	533.5	541	Out and under	0.2	-0.3
	Biodiversity Index	Biodiversity Index score	17658	17711	17761	18723	Out and under	0.4	-0.1
	Waste disposal compliance	%	100	100	100	100	Under Only	-	-0.1
	Water industry national environment programme (WINEP) compliance	%	100	100	100	100	Under Only	-	-1.0
	Abstraction Incentive Mechanism (AIM)	Megalitres (Ml)	0	2843.4	2843.4	2843.4	Out and under	0.1	-0.1
	Local community satisfaction	%	75	85	85	93	Out and under	0.8	-1.1
Safe and reliable supply of Water	Water quality compliance	Compliance risk index (CRI) score	1.27	0	0	0	Under Only	-	-7.6
	Supply interruptions	Hours: mins: secs per property per year	0:12:12	0:03:00	0:01:36	0:01:00	Out and Under	1.4	-3.8
	Mains bursts	Mains bursts per 1,000km	142	133	131	130	Under Only	-	-3.9
	Unplanned Outage	%	1.74	1.50	1.50	1.4	Under Only	-	-1.0
	Risk of severe restrictions in a drought	%	42	42	42	42	Reputational	-	-
	Customer contacts about water quality – appearance	Contacts per 1,000 people	0.93	0.43	0.34	0.1	Out and under	0. 2	-0.7
	Customer contacts about water quality – taste and smell	Contacts per 1,000 people	0.44	0.25	0.23	0.1	Out and under	0. 1	-0. 2
	Properties at risk of receiving low pressure	No. of properties	69	60	45	20	Out and under	1.5	-2.8
	Turbidity performance at treatment works	No. of failures	0	0	0	0	Under Only	-	-2.1
	Unplanned maintenance – non-infrastructure	No. of jobs	3976	3272	3272	3272	Under Only	-	-1.8
	Population at risk from asset failure	No. of people	832,886	290,000	0	0	Out and under	2.3	-6.4

6.7 Summary of our plans by outcome

A summary of our plan by outcome is provided below.

Excellent Customer Experiences

Our customers have told us that when they contact us we should respond efficiently and quickly, while keeping them informed throughout the process. They have also told us that our services should be inclusive, reflecting the differing needs of individuals in our communities and that we should support those customers who struggle to pay.

Our plan builds on the successful relationship we have with Wessex Water through Pelican to deliver a low cost to serve. Through a transformation in the ways our contact centres and field staff work, we will improve responsiveness while reducing cost. These changes are underpinned by system improvements which provide a 'single view' of our customers.

We already provide a range of extra care services for those customers whose circumstances mean that they require additional support or help to pay their bill. We plan to expand the reach of these services by increasing the number of customers on our Priority Services Register to almost ten times the level in 2017/18 (an additional 34,000 customers) and by offering social tariffs to all customers who are eligible.

Through our plan, we aim to transform our customer service. As a proxy for the new C-MeX measure, we aim to become the leading utility company in the UKCSI. Our plan also responds to the needs of our retailers and developers, making the improvements which they have told us that they would like to see.

Local community and Environmental Resilience

Leakage remains at the forefront of our customers' concerns. We agree that this is a key measure of the efficiency of the Company and our legitimacy in the eyes of our customers and stakeholders. We plan to continue to lead the sector through reductions that more than offset the projections for growth within our area. We will deliver a 15% reduction through a step change in our procurement practices and by better understanding the dynamic performance of our network, to deliver industry-leading levels of service in leakage reduction by 2025.

Sector leading monitoring and measurement systems to support these changes are an integral part of our plan. Though small in investment terms, the impact on leakage performance will be great. This approach supports our drive to better understand our network, and our ability to respond quickly and efficiently.

We will also build operational resilience by looking to the market to help our customers to reduce water wastage by providing better information and choice.

We will continue to work with our communities to deliver our ambitions through collaboration to expand our role beyond the basic supply of water to support local community and environmental resilience.

Safe and Reliable Supply of Water

Continuity of supply is at the forefront of our customers' desire for a high-quality service. When things go wrong, they appreciate a rapid and personal response. Recent operational events, including our response to the freeze-thaw incident in March 2018, have illustrated how customer trust and satisfaction can be retained by responding quickly and effectively to operational issues.

We plan to both improve water quality and reduce the occurrence of supply interruptions, while making our systems more resilient to extreme events. Our plan uses a combination of both operational strategies and capital investment to improve the presence and effectiveness of our field force. Our plan also supports our staff with the right information and reduces the impediments in the mains network that can have a major impact on the duration and severity of service interruptions. This integrated approach builds on industry best practice and is demonstrated through the re-balancing of capital and operating costs in our plan.

Our continued investment in operational resilience provides system flexibility and redundancy to respond to the impact of our most significant risks to the continuity of supply. We have expanded the scope and reach of our schemes to protect population centres of over 10,000 people. We have tested these proposals and while our customers support this activity, they have indicated their preference for it to be delivered over a longer period for affordability. Our plan respects this conclusion.

Corporate and Financial Resilience

Our physical assets cannot deliver excellent customer service without the help of our people and without sound finances.

Corporate resilience requires a robust understanding of how our physical and human assets interact so that overall performance can be improved. Our corporate resilience is founded on:

- Strong staff engagement which enables effective workforce planning and inclusive stakeholder partnerships, which support identification of risks and opportunities.
- Zero tolerance for health and safety failures.
- Strong quality management systems, aligned to international standards (ISO 9001) and improvements to our cyber-security.

Financial resilience addresses solvency, liquidity, risk management, and long-term viability. We need resilient finances to maintain focus on long-term improvements, even as we deal with short-term events, and to maintain affordability for our customers. Our plan includes:

- Ambitious targets to reduce costs and increase renewable energy generation.
- The application of world class asset management to optimise our operations.
- Developing robotics, artificial intelligence and connected systems strategies.
- Supporting our supply chain through innovation partnerships (e.g. 'Smart City' Bristol).

Our plans are both supported by our Corporate and Financial Resilience, which ensures that our corporate and financial systems can avoid, cope with and recover from disruptive events; and also deliver corporate and financial resilience as an outcome of a balanced plan developed with our customers.

An integrated plan

Our plan is fully integrated and each promise contributes to each outcome. The relative levels of contribution are shown in the heat map overleaf (Figure 27).

Our PR19 outcomes					
Customer priorities	Customer promises	Excellent customer experiences	Local community and environmental resilience	Safe and reliable supply	Corporate and financial resilience
We give you a bill which you can afford	Lower bills for customers - affordable for all	L	L	L	H
You get the best possible experience every time you need us	Achieving customer excellence	H	H	H	H
	Inclusive services that meets customers individual needs, especially when they are most vulnerable. Aiming for zero water poverty	H	H	M	M
Saving water before developing new supplies	15% leakage reduction	M	H	H	M
	Metering and water efficiency promotion and support	H	H	L	M
Trust beyond water – helping you to improve your communities and the local environment	Accountable to the community partners we work with for the wellbeing of society – 'Bristol Water For All'	H	H	L	H
	Building biodiversity and protecting our environment	M	H	M	H
Keeping top quality water flowing to your tap	Improving water quality (including contacts for discolouration and taste)	H	H	H	L
	Reducing supply interruptions to 1.8 minutes per customer (our forecast of industry top quartile)	M	M	H	M
	Resilience – boosting protection for population centres of more than 10,000	H	M	H	H

Figure 27: Heat map showing how our outcomes are delivered by our customer promises

	High contribution
	Medium contribution
	Low contribution

6.8 Summary of changes to our PCs and ODIs

The changes to PCs and ODIs within our plan are summarised in this section.

Performance commitments and targets

In response to the additional information available through the IAP we have made the following changes to our PCs:

- Two new performance commitments (Percentage of customers on our PSR and a retailer measure of experience (R-Mex).
- Minor changes to targets to three PC's:
    - Supply interruptions – we have changed the 2024/25 target from 1.8 minutes per customer to 3.0 to reflect the industry upper quartile within the IAP. We retain our ambition to meet our original target in line with the expectations set by our customers.
    - Unplanned outage – we have changed the 2024/25 target from 1.74% to 1.50%, reflecting our best performance to date (this new level of performance is more stretching that the original submission)
    - Risk of severe restrictions during a drought - we have changed the 2024/25 target from 0% to 42%, reflecting a change to the measurement methodology rather than a change to the level of service that our customers will receive. This methodology changes responds to the feedback within the IAP.

Incentive rates for individual PCs

Our ODI RORE range was within the indicative range within Ofwat's final methodology. We have considered changes to individual ODIs, but have maintained the overall RORE balance as an outcome whilst still considering all of Ofwat's challenges carefully. We consider the revised plan an improvement on that originally proposed, informed by the information subsequently revealed, whilst still being aligned with our customers' views.

We have revised the ODI ranges for 7 PCs:

- Water quality contacts - taste and odour
- Water quality contacts – appearance
- Supply interruptions
- Water quality compliance
- Turbidity
- Unplanned maintenance
- Unplanned outage

For the first three measures on the list above, in response to the IAP we have removed the second outperformance rate and as a result, we now have no performance commitments with a second outperformance rate.

We have reviewed the additional evidence available through the IAP and overlaid this information with the views of our customers, from both our original and additional customer research and made changes to our plans to the final four PCs on the list above as a result. These changes include a strengthened incentive range, reflecting that high quality water is a top priority for customers.

Caps and collars

Our additional customer research showed that customers continue to support the principles of caps and collars. This additional research also indicated customer support for the specific caps and collars included within our plan.

Taking into account this additional research, together with the IAP feedback, we have made a small number of changes to the caps and collars in our plan:

- Added in one additional cap - to population at risk of asset failure PC (caps outperformance at 2 years' early delivery)
- Adjusted the level of two collars – water quality compliance in line with Ofwat's standard approach (from 4.39 to 9.50) and turbidity (increased from 1 to 5)

Deadbands

Our additional customer research confirmed that customer support for the use of deadbands in principle and the application of deadbands to the specific performance commitments within our plan. However, we recognise that Ofwat's view is that we should limit the use of deadbands in our plan (action BRL.OC.A3) and we have therefore made the following changes to our plan in response to additional information available through the IAP:

Removed deadbands from five PCs, including for outperformance where we had anticipated upper quartile performance and a glide path based on the original PR14 methodology:

- Water quality contacts - taste and odour
- Water quality contacts – appearance
- Low pressure
- Unplanned maintenance
- Per capita consumption

Revised deadbands for two PCs:

- Water quality compliance (to be consistent with the standard collar / deadbands for other companies)
- Waste disposal compliance

We describe our revised plan by performance commitment in chapters 7-9 of this document.

Further detail is contained within revised **C3 document** including:

- A summary table of how we have responded to the Outcome IAP actions
- Links back to customer research
- Explanation for our response to the individual IAP actions relating to our performance commitments and ODIs
- Our analysis of our service levels and ODI rates for the common PCs (based on the information provided in Ofwat's IAP Technical appendix 1: Delivering outcomes for customers

6.9 Our approach to triangulation of customer benefit values

Ofwat commented against test question EC1 "Whilst the company demonstrates its use of triangulation, there appear to be limitations in the approach with a lack of adoption of industry best practice (e.g. UKWIR guidance)".

We disagree that this is the case. We assume the reference to best practice on triangulation refers to CCWater's report by ICF[9], as we are not aware of any UWKIR guidance on triangulation specifically.

We have asked NERA to review our approach, as we developed a specific approach to our original plan that was designed to address the limits of triangulation as a concept. This was to carry out specific customer research, with service levels set at the upper, lower and central estimate for triangulated WTP. This research also segmented into our customer types. It also tested how the demand curve from customers for the service levels at each of these WTP levels varied with bill factors that did not change with service levels (e.g. cost of capital, efficiency, PR14 reconciliation adjustments).

This research on the draft business plan, which included games, surveys, customer forums, and a wider variety of survey methods, including the most visible draft business plan[10] dialogue and consultation we believe any company undertook at PR19. It was focussed on testing triangulation in practice.

It informed the efficiency judgements of the Board in the final plan, which allowed acceptability of the original business plan (93%), including for all the individual key areas of decision. The vulnerability impact of the plan was tested, through the observation that the "social rented" most vulnerable and price sensitive customers were those who most supported service improvements, but only if the overall bill was falling. We believe this "context and segment" sensitive triangulation represents best practice and is both innovative and ground-breaking.

We re-present this story in our revised **C3 document**, as it explains the strong customer support shown in the revised acceptability testing, including the general support for Bristol Water reflected in the small company cost of debt adjustment support (87%). Our research also shows support for the construction of our ODI package,

[9] https://www.ccwater.org.uk/wp-content/uploads/2017/07/Defining-and-applying-triangulation-in-the-water-sector.pdf

[10] https://www.bristolwater.co.uk/wp-content/uploads/2018/07/BW-Business-plan-doc-2018_Artworkdigital-1.pdf

including innovative ODIs that reward social and environmental performance alongside the basic improvements in water supply such as through reducing supply interruptions and leakage. Further information can be found in evidence file **BRL.TR04 Assessment of Bristol Water's Approach to Triangulation.**

6.10 Impact of our plan on bills

Our bills on average will reduce by c.4%[11] in 2020 and 5% by 2025, before CPIH inflation. This is in addition to the 17% reduction in 2015.

To achieve service improvements while reducing the level of the bill in real terms, we have included significant efficiencies equivalent to £65m (around 12% of totex) within our plan, in combination with robust investment planning processes to identify the most cost beneficial solutions. This is on top of a business that has already transformed to what we estimate to be an upper quartile efficiency position for both wholesale and retail based on the latest industry efficiency modelling. The lower value of the appointee cost of capital at 2.6% compared to around 3.8% (RPI real) in the last planning period and has contributed to lower bills by c£7.

We have a significant cost risk relating to the Canal & River Trust, which supplies nearly half of our raw water via the Gloucester & Sharpness Canal. Their proposed price increase of around £8m per annum is not in the long-term interests of our customers or the environment and cannot be mitigated through normal business processes. This dispute is unlikely to be resolved by April 2020 and we therefore propose a notified item as the most appropriate mechanism to respond to this risk, reflecting that we will contest this increase.

11 Based on the average household bill

Bills for household customers

Our plan will result in a bill reduction of £10 on the average household bill by 2025 in real terms (£182 in 2019-20 to £172 in 2024-25). Including the impact of projected inflation, by 2025 bills will increase by £7 from 2020 (£190 to £197) or £13 from bills this year (2018-19) (£184 to £197), see Figure 28. We forecast they will remain £8 below the level that they were in March 2015 and therefore maintaining a bill reduction over a period of at least 10 years (£206 in 2014-15 to £198 in 2024-25).

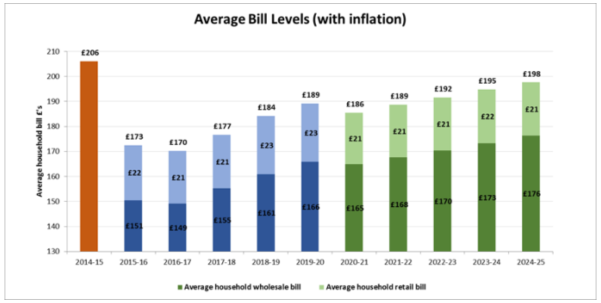


Figure 28: Average bill levels (Including Inflation)

Longer term bills

We expect bills to remain stable after 2025 (Figure 29), based on assumptions of modest on-going future investment needs in our area. This is because:

- We will be at the industry frontier in the key levels of service.
- We believe there will be, other than lead pipe replacement, little additional cost from the potential update to the EU Drinking Water Directive.
- We are improving the land, river and reservoir habitat biodiversity, so we do not see major and expensive investment being required in the future. The actions taken in this plan have long-term benefit and avoid the major interventions that might arise if we did nothing that had a wider benefit.
- We continue to improve asset and supply resilience, and have strong operational resilience (for instance clear plans to reduce the remaining customers in population centres greater than 10,000 from significant water supply interruptions from critical asset failure). Financial resilience will continue to improve based on the package of measures within our plan.

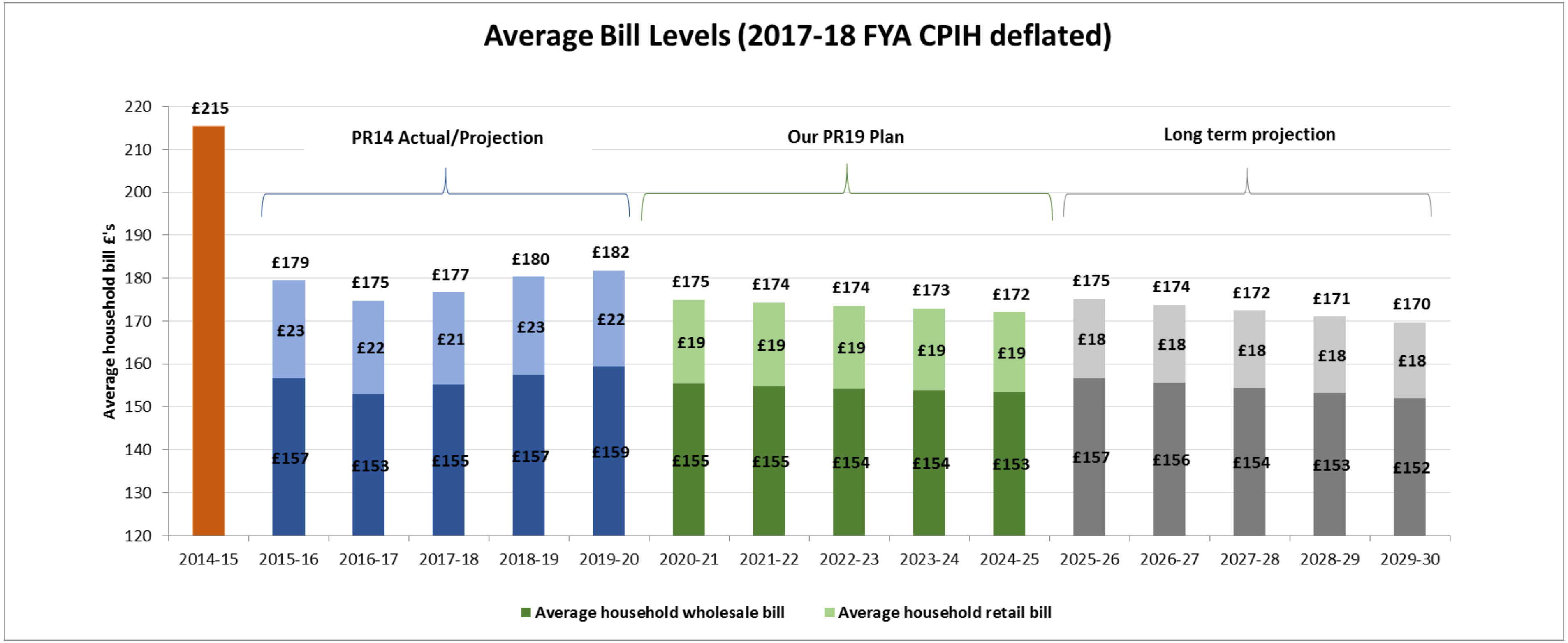


Figure 29: Average household bills (2017/18 prices) excluding inflation

6.11 ODI range

Table 4 opposite contains information on ODI rates. Our submitted ODI RoRE range was +1.1% to -2.3% (within the P10 and P90 range) and +2.1% to -4.0% (in the total range), plus +/-0.5% for C-MeX. Ofwat's PR19 methodology suggested an indicative range of +/- 1-3% of RoRE for ODIs in the P10:P90 range (excluding C-MeX and D-MeX), therefore our submitted plan met this element of the methodology.

Our final revised range shows a lower scope for outperformance, principally due to the capping of the resilience investment potential reward at two years' early delivery, to answer Ofwat's challenges on the scale of this outperformance. Asset health penalties are maintained overall, despite the removal of some deadbands and adjustments to caps and collars. This has been achieved by increasing potential penalties on areas we perform well, but applying lower marginal cost rates where deadbands have been removed (as the cost multipliers have been removed in some cases, as deadbands meant we were applying performance over a narrower (worse) level of performance). This reflects our new customer research, as well as managing the overall RORE risk (which again meets Ofwat's indicative range of +/- 1-3% of RoRE for ODIs in the P10/P90 range, excluding C-MeX and D-MeX).

Our detailed analysis of asset health incentive amounts is shown on the page below, together with the total incentive ranges.

Table 4: Our ODI rates

Original Plan	Underperformance as % of RORE	Outperformance as % of RORE	Under Performance £m p.a. (average)	Outperformance £m p.a. (average)
Maximum range	-5.1%	3.2%	-10.8	6.7
Range (excluding C-MeX and D-MeX) -full range	-4.0%	2.1%	-8.5	4.5
Range (excluding C-MeX and D-MeX) P10:P90	-2.3%	1.1%	-4.9	2.4
Range (excluding asset health and C-MeX and D-MeX) P10:P90	-1.9%	1.1%	-4.0	2.3

Revised Plan	Under performance as % of RORE	Out performance as % of RORE	Under performance £m p.a. (average)	Out performance £m p.a. (average)
Maximum range	-5.3%	3.0%	-11.2	6.2
Range (excluding C-MeX and D-MeX) -full range	-4.2%	1.9%	-8.9	4.0
Range (excluding C-MeX and D-MeX) P10:P90	-2.5%	0.9%	-5.2	1.9
Range (excluding asset health and C-MeX and D-MeX) P10:P90	-1.9%	0.8%	-4.1	1.7

Variance – revised plan to original plan	Under performance as % of RORE	Out performance as % of RORE	Under performance £m p.a. (average)	Out performance £m p.a. (average)
Maximum range	-0.2%	-0.2%	-0.4	-0.5
Range (excluding C-MeX and D-MeX)	-0.2%	-0.2%	-0.4	-0.5
10% to 90% probability	-0.2%	-0.1%	-0.3	-0.3
Range (excluding asset health and C-MeX and D-MeX)	-0.1%	-0.2%	-0.1	-0.5

2020-2025 total £m	Unlikely Underperformance	Possible underperformance	Possible outperformance	Unlikely outperformance	Total underperformance	Total outperformance	RORE P10 underperformance	RORE P90 outperformance	RORE Total underperformance	RORE Total outperformance
Mains Bursts	-2.1	-1.8	0.0	0.0	-3.9	0.0	-0.2%	0.0%	-0.4%	0.0%
Unplanned Outage	0.0	-1.0	0.0	0.0	-1.0	0.0	-0.1%	0.0%	-0.1%	0.0%
Properties at risk of receiving low pressure	-1.4	-1.4	1.3	0.2	-2.8	1.5	-0.1%	0.1%	-0.3%	0.1%
Turbidity performance at treatment works	-2.1	0.0	0.0	0.0	-2.1	0.0	0.0%	0.0%	-0.2%	0.0%
Unplanned maintenance – non-infrastructure	-0.3	-1.4	0.0	0.0	-1.8	0.0	-0.1%	0.0%	-0.2%	0.0%
Total Core asset health - long term measure only	**-6.0**	**-5.5**	**1.3**	**0.2**	**-11.5**	**1.5**	**-0.5%**	**0.1%**	**-1.1%**	**0.1%**
Water quality compliance	-5.4	-2.3	0.0	0.0	-7.6	0.0	-0.2%	0.0%	-0.7%	0.0%
Customer contacts about water quality – appearance	-0.4	-0.3	0.1	0.1	-0.7	0.2	0.0%	0.0%	-0.1%	0.0%
Customer contacts about water quality – taste and smell	0.0	-0.2	0.1	0.1	-0.2	0.1	0.0%	0.0%	0.0%	0.0%
Total PARTIAL asset health and wider customer driven	**-5.7**	**-2.8**	**0.2**	**0.2**	**-8.5**	**0.3**	**-0.3%**	**0.0%**	**-0.8%**	**0.0%**
Total asset health related	**-11.7**	**-8.3**	**1.4**	**0.4**	**-20.0**	**1.8**	**-0.8%**	**0.1%**	**-1.9%**	**0.2%**

Table 5: RORE breakdown

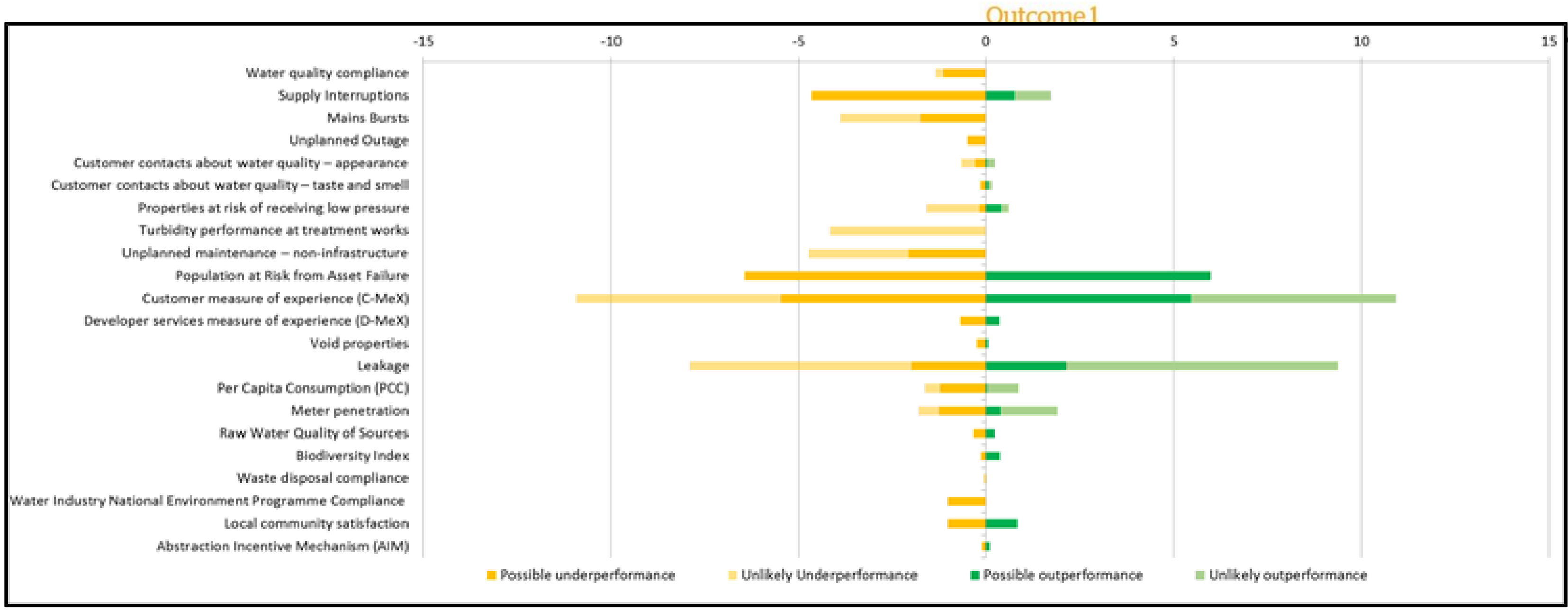


Figure 31 Outcome incentives over 2020-25 in 2017/18 CPIH prices (£m) – Original plan

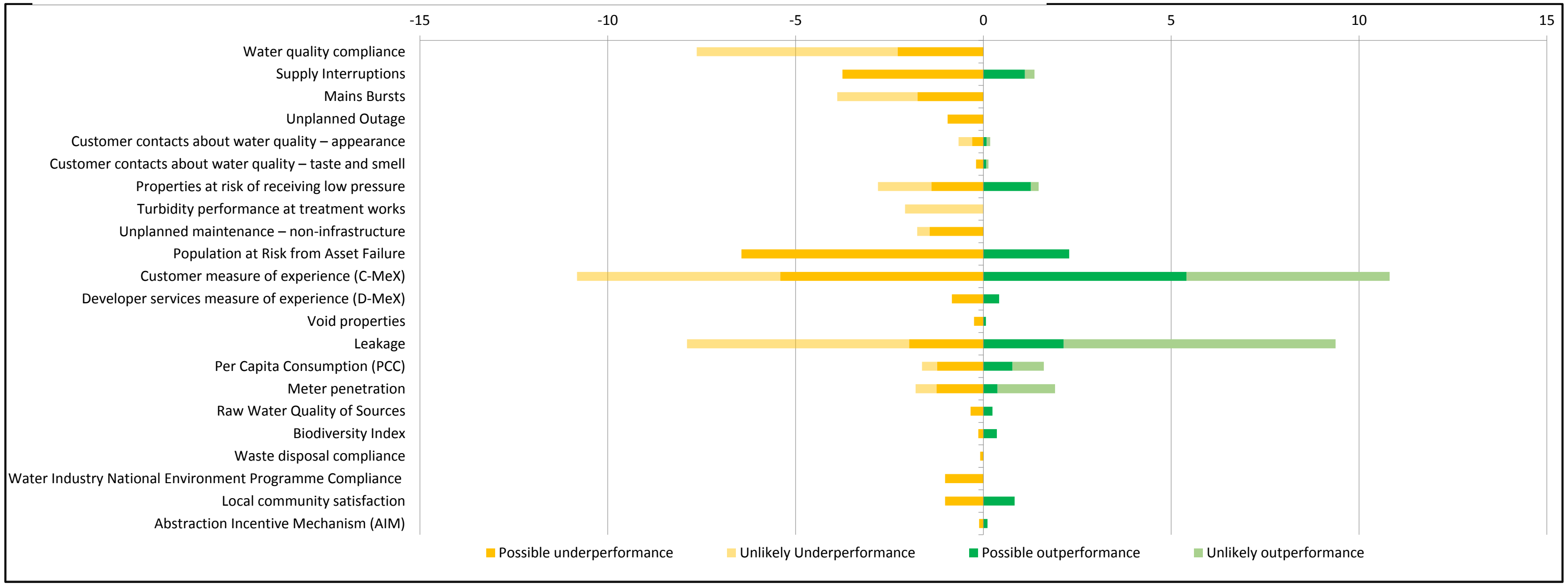


Figure 30 Outcome incentives over 2020-25 in 2017/18 CPIH prices (£m) –revised plan

7 Outcome 1: Excellent Customer Experiences

We aim for excellent experiences for our customers and always provide an effective response that builds trust. Our services are inclusive, being affordable for all and meet individual customer needs, including those in vulnerable circumstances.

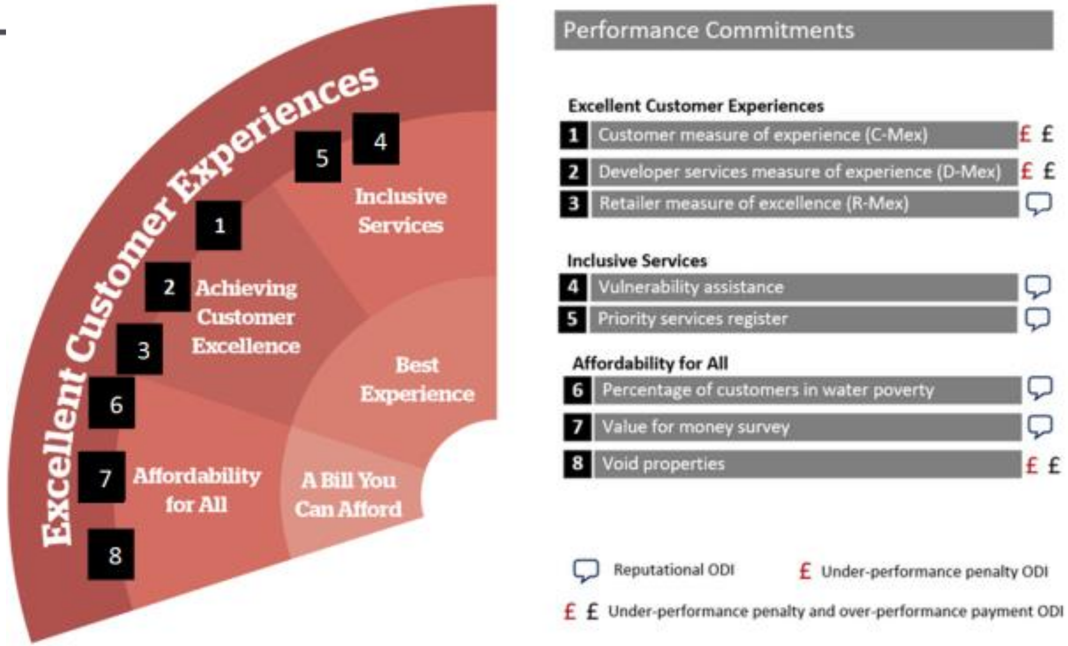
7.1 Introduction

We provide an essential service to a diverse set of residential customers, businesses, developers and retailers in the area we serve. Customer excellence means providing the best possible experience in every single interaction.

In this chapter of our Business Plan, we explain how our plans for the period 2020-25 will allow us to achieve **Excellent Customer Experience**. We also present what we are already doing, and the performance commitments we use to track our progress.

7.2 Key Messages

- We will make it easy for our customers to find out what they need from us.
- We will share our street works information and work with stakeholders to reduce the level of disruption from these activities.
- We will develop fully-automated self-service portals for our retailers and developers.



- We will provide extra care services to 7% of our customers through our priority services register
- Our bills will be affordable to all – we will continue to eliminate water poverty.

7.3 Background

To achieve Customer Excellence, we will implement initiatives to deliver on three customer promises:

- **Achieving customer excellence**
- **Inclusive services** - meeting the needs of customers in vulnerable circumstances
- **Value for money and affordability**

To hold us to account, each of our promises is linked to one or more performance commitments. A total of eight performance commitments will be used to track our progress towards Excellent Customer Experiences. Each is also linked to outcome delivery incentives (ODIs) to help ensure that we deliver for our customers and, where appropriate, that we are incentivised to outperform through innovation.

Against this outcome, we have three performance commitments with financial ODIs and five reputational performance commitments.

7.4 Changes in response to the IAP

We have added in two additional performance commitments (percentage of customers on our priority service register and retailer measure of experience (‘R-Mex’).

We have changed the sample size from our vulnerability satisfaction measures from 300 to 500 customers. As we currently have c4000 customers on the PSR, a survey of 500 would be a 12% sample size, which we believe is robust. In addition, the survey sample will be representative of the needs codes to ensure all needs and services are captured and representative in the survey. We will continue to monitor and review the sample size as our PSR grows in line with our target to ensure a robust sample size.

No changes have been made to the targets or ODIs for the remaining PCs (although the incentives for D-MeX have been updated to reflect changes to developer services revenue).

7.5 Promise: excellent customer experiences

Our customers’ views

What matters the most to our customers

Our data shows that the satisfaction of our customers and the time it takes for us to resolve their queries go hand in hand. Those customers who have mentioned negative experiences often explain that this reflects a lack of regular updates and a desire for fuller explanations. Areas for improvement include speed of resolution, keeping customers informed along their journey and the ability to communicate with us in their channel of choice.

Our customers consider traffic disruption to be an important part of the customer experience. When we asked our customer online panel, 38% of respondents had been affected by our work due to road traffic disruption – a much higher figure than anything relating to water supply. Our customer panel gave mixed views on whether traffic disruption should be something customers contribute to mitigating. When we asked our online panel, 69% said they would not be willing to see increased bills if roads could be reopened more quickly.

Our insight tells us that we must go beyond simply providing good customer service when our customers contact us and consider the wider impacts of our activities, such as our roadworks. We also need to play a greater role in supporting community wellbeing. For example, to ensure our customers have access to our services and receive a bill they can afford, we will collaborate with stakeholders to raise community awareness of the support we offer.

Our annual stakeholder survey in 2017 told us that 85% of our stakeholders and business customers think we provide a good or excellent service, and 69% think that we are good to do business with.

When we talked to developers, they thought that improvements could be made to the application process and they welcomed the introduction of a new Developer and Self Lay Providers (SLP) portal to manage applications and other works. Developers and SLPs are positive about creating a closer working relationship and value more engagement and communication through our Market Engagement Days as well as face-to-face meetings.

We understand that to excel in the competitive market, developers need a first-class service from us as a water wholesaler. For SLPs, we understand that they have strict deadlines to meet. Our plans are therefore based on national standards and the targets set by Water UK.

Our retailers have told us that they value our approach to supporting them and the close working relationship we have. They are generally satisfied with the services that we currently provide and we understand that to excel in the competitive market, retailers need first class service from us.

Customer feedback on our draft business plan

To guide the process of talking to our customers about our business plan, we presented three possible plans. These alternatives described ***slower***, ***suggested*** and ***faster*** paths to the same long-term ambition, which we also consulted on.

When we presented these alternative strategies to our customers, they highlighted the importance of good customer service and generally supported the *suggested* plan. Some customers questioned the *faster* plan, where we compared our service to major retailers (such as Amazon), and whether it was necessary to pay more for improved customer service (as some saw this as an internal Bristol Water issue).

The majority of customers (58%) chose the *suggested* plan, despite the fact the *slower* plan would add no cost to the customer bill. This shows that customers are willing to pay a small amount for improvements to customer service.

Based on this feedback, we decided to **continue with the *suggested* plan for our final plan acceptability testing**, mindful that many customers see great customer service as a normal business activity.

In our final plan acceptability testing, in the context of both comparative information and the proposed bill, 68% of customers agreed with our aim to be the best utility for customer experience and only 3% disagreed. In the telephone survey with less information, 80% of customers agreed with our proposals and only 4% disagreed.

What we have achieved so far

Independent surveys by the Institute of Customer Service (UKCSI) indicate that **we provide our customers with the best level of service in the water industry**, and one of the best of any utility company. These findings support what our customers tell us directly; that the vast majority are satisfied with the service we provide.

Our **Customer Transformation Programme** is revolutionising our customer service proposition, optimising current customer interactions and providing our customers with timely access to job status information via their channel of choice. The programme has a number of constituent projects including a new website, an integrated single view of the customer, and end-to-end case management.

We have redesigned and **re-energised our approach to engagement with our Developers and Self Lay Providers** (SLPs) to create a closer working relationship and to embed engagement across all of our customer groups. We have a clear understanding of the priorities and perceptions of this customer group through annual surveys, the Water UK survey and also bespoke research. We applied this understanding to prioritise improvements including establishing Market Engagement Days to bring together Developers and SLPs to build relationships, communicate information, and receive feedback.

We engage extensively and regularly with the retailers we serve. Since the opening of the retail market in April 2017, we have implemented a continuous and **tailored engagement strategy with each of our retailers** in line with their individual needs and requirements. Day-to-day engagement takes place through a dedicated account manager with a direct line, email and access to our retailer portal to provide a continuous feedback avenue. Recent significant improvements to our retailer portal include:

- A new function which pre-populates request forms from retailer systems, saving retailers time and minimising the risk of error.
- A GIS mapping system providing detailed information on the location of mains.

We also carry out regular surveys to measure our retailers' perception of the service we provide.

We are taking a lead in ensuring that the business retail market works for all market participants, using our technical expertise to help improve transaction arrangements.

Additional progress over the past six months

We recognise that despite having high levels of customer satisfaction, we also have high numbers of complaints on a normalised basis in comparison to the rest of the industry.

Throughout 2018/19 we have taken measures to reduce the root causes of complaints. We now have a much better understanding of the reasons customers complain and a clear and detailed action plan in place. Examples of some of the actions undertaken include:

- Formation of The Customer Care Team, an additional two FTE into our Operational Contact Centre in place since October 2018. The team co-locate with the Schedulers and Network Managers to help to fix the issue on the same day where possible.
- Customer journey mapping which included directly involving customers in defining our target user experience.
- Piloting a new business structure to take back control of all scheduling, planning and office based customer contact from our existing term contractor has resulted in minimal complaints for these teams. This reinforces our view that our long term strategy is effective and will structurally address our performance in the longer term.
- We are increasing the use and reporting of instant customer feedback across all of our field and contractor staff. This encourages all staff to speak with the customer if they are available to check they are happy with our work and prevents complaints as issues can be quickly resolved.
- A weekly customer complaint dashboard, reviewed by senior managers was launched in January 19.
- Written communication training to introduce a more conversational tone to the reply of queries and complaints from customers.

We will monitor our performance against CCWater targets. Through the measures we have already implemented we anticipate a 13% reduction in our 2018/19 complaint volumes, to 26.79 written complaints per 10,000. In addition we are forecasting an improvement in the measure of resolving customer complaints at stage one from 94.5% in 2017/18 to 95.3% for 2018/19.

Further information is provided in our revised **C7 document.**

Spotlight on ServiceMark accreditation

We recognise that customer expectations of excellent service are always changing. For this reason we have taken steps, based on our longstanding membership of the Institute of Customer Services (ICS), to compare the quality of service we offer not just against other water companies, but others outside our industry. Through the UKCSI we also have a whole-market view of our customer service and have consistently scored well throughout 2018/19.

Our commitment to delivering excellent customer service, both internally and externally, has recently been recognised through achieving a ServiceMark accreditation. ServiceMark is a national standard recognising an organisation's achievement in customer service, and its commitment to upholding those standards. It is awarded based on customer satisfaction feedback and an assessment of employee engagement with an organisation's customer service strategy.

As one of only five water companies with the accreditation for the whole organisation, this is the result of many years of work, involving several stages of assessments from the Institute of Customer Service.

The Customer Transformation Programme and IT investment in our plan will improve the services to developers and retailers, and provide them with new information and service portals to facilitate both the quality of service and market choice.

For developers, we are working to improve our performance on facilitating competition, following our commitments to Ofwat. We are delivering this through our new approach to charging new developments which ensures that developers have certainty of cost and flexibility in how their needs are met. We recently held a Market engagement day, which was as an opportunity to provide information about industry changes e.g. Adoption Codes and a chance for Developers to make suggestions for improvements and share best practice.

Our performance commitments for this promise

Customer experience measure

PC Type: Common, new, residential retail control

ODI Type: Financial - underperformance penalty and outperformance reward

PC Driver: Ofwat comparative metric and aim to be leading performer

Description: The customer measure of experience (C-MeX) is a new industry-wide measure of customer satisfaction currently being developed by Ofwat. Ofwat has yet to announce the final incentive design for C-MeX.

Benchmarking: We have generally performed well against the current industry measure of customer satisfaction (the Service Incentive Mechanism), however during 2017-18, our performance slipped and was slightly below average.

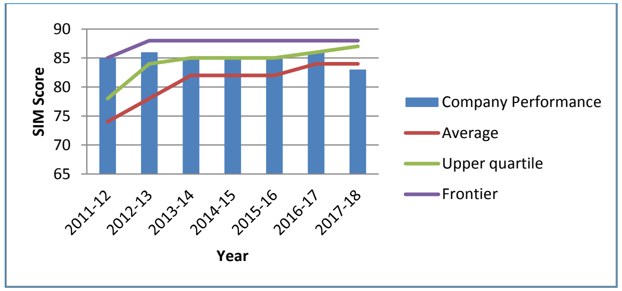


Figure 32: Historical SIM performance

This was primarily due to the number of large operational incidents which we had last year, which resulted in significantly increased numbers of contacts from customers. Overall we forecast that we will be slightly above average industry performance for 2015-2019.

Two years of independent surveys by ICS rank us among the top performing water companies. We also know that 97% of customers who return our feedback cards after work is carried out near their homes are satisfied with our service.

Our annual customer satisfaction surveys gave a score of 87% in 2017-18.

The results for the Water Matters report published by the Consumer Council for Water in July 2018, show that we outperformed the industry average on nearly every measure and have overall satisfaction levels of 95%.

Changes to this PC

No changes have been made to this PC in response to the IAP (the design of the ODI for this PC is still under development and will be confirmed by Ofwat separately).

Our targets and incentives

As the industry metric is currently in development, as a proxy we have set ourselves the target of being the top performing utility in the UK Customer Satisfaction Measure by 2025. In the long-term, our ambition is to be within the top 10 of all companies in the index (among the likes of Amazon and John Lewis).

Incentives for C-MeX are set by Ofwat, with outperformance incentives of up to 1.2% (c£1.1m) of residential retail revenues per annum , increasing to between 1.2% and 2.4% (c£2.2m) of residential retail revenues per annum for exceptionally performing companies (expected to be assessed using UKCSI) and underperformance incentives of up to 2.4% per annum. Incentives will be based on our annual ranking in comparison to performance across the industry.

Reason why our target is stretching

We are aiming to be not only the best performing water company, but the best performing utility company for customer satisfaction. Our customer transformation programme will see us having a single view of each customer across our business and allow us to improve the customer experience through our people as well as new technology.

One of the key learning points that we have had from the business retail market is how a local personal approach can readily translate to a national market. Communication, and treating customers (retailers are our customers) as people with individual needs in the way we would like to be treated is part of our purpose and vision. Our high performance as a wholesaler to the business retailer market has boosted our ambition for all of our customers.

Developer services experience measure

PC Type: Common, new, wholesale network plus control

ODI Type: Financial – underperformance penalty and outperformance reward

PC Driver: Ofwat comparative metric and aim to be leading performer

Description: The developer services measure of experience (D-MeX) is a new industry-wide measure to incentivise excellent customer experience for developer customers. These include small and large property developers, SLPs, and those with new appointments and variations.

Benchmarking: A comparison of Developer Services performance for the water industry is currently made though a quarterly comparison against a range of metrics by Water UK. Bristol Water performs worse than average in comparison to the rest of the industry, although we receive positive feedback from developers and the challenge we face is a small number of delivery tasks. We also recognise a number of areas where we can improve, which we will achieve through technology by providing a developer portal so the standards of service match those we provide to retailers. Our transformation project for network service delivery will deliver improved performance.

Changes to this PC

No changes have been made to this PC in response to the IAP (although the incentives for D-MeX have been updated to reflect changes to developer services revenue). The design of the ODI for this PC is still under development and will be confirmed by Ofwat separately.

Our targets and incentives

As D-MeX is a new performance commitment, we do not yet have committed service level targets. We will set our targets once the measure has been developed by Ofwat.

Ofwat has said that incentives will be based on our annual ranking as compared to performance across the industry. Outperformance will be up to 2.5% (c£0.1m p.a.) and underperformance penalties will be up to 5% of developer services income (c£0.2m p.a.).

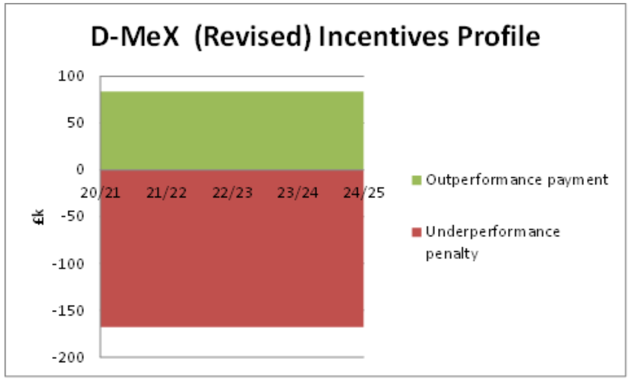


Figure 33: D-MeX incentives profile

Reason why our target is stretching

We aim to be the top performing water company for all customer experiences, which includes developers.

One of the key learning points that we have from the business retail market has been developer engagement days. These receive very positive feedback both from the developers and industry representatives.

Retailer experience measure

PC Type: Bespoke, new, wholesale network plus control

ODI Type: Reputational

PC Driver: Historical information and aim to be leading performer

Description: This is a measure of our performance as a wholesaler operating in the business market, incorporating the existing market and operational performance standards and a satisfaction measure.

Benchmarking: As this is a new performance commitment, direct comparative information is not available. We do have data from the existing Market Performance Standards (MPS) and Operational Performance Standards (OPS) reporting but we do not currently have any base survey satisfaction information (other than internal company surveys, which are not comparative and are materially different to what the RWG will be proposing).

Our transformation project for network service delivery will deliver improved performance.

Changes to this PC

This PC has been added to our outcomes in response to the IAP action BRL.OC.A1. This action asked for a PC on gap sites and voids in the non-household market. We will not be introducing a PC in this area as we do not consider that management of the level of business retail gaps and voids is a measure of performance of the wholesale company. Instead, we propose a new separate PC on retailer measure of experience (R-MeX) to show our continuing commitment to providing a great service to the non-household market, which will include supporting our retailers to manage void and gap sites.

Our targets and incentives

As this performance commitment has a reputational ODI there is no impact on our customers' bills.

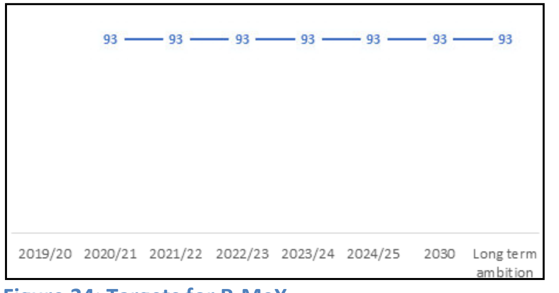


Figure 34: Targets for R-MeX

Reason why our target is stretching

Existing data from MPS and OPS reporting indicates upper quartile / frontier levels of performance. The AMP7 targets will be dependent on our continuing compliance with MPS and OPS and the scores we receive on the satisfaction survey; a target of 100% satisfaction would not be appropriate due to the unreliability in the data available for a new metric. A benchmark at our hard to achieve household customer satisfaction is stretching.

Our plans for 2020-25 and beyond

To deliver against our **C-MeX** performance commitment we will continue to deliver our transformation to:

- Make it easier for our customers to find out what they need from us by offering multiple channels and self–serve options. This will allow them to find out what they need to know at a time that suits them.
- Make sure customers understand our delivery against performance commitments so they are happy that their money is being well spent.
- Strive to continue to be the most trusted utility company.
- Equip our employees with the knowledge and technology they need to provide great customer care through all our customer channels.
- Invest in new technology to give our staff the information and systems we need to ensure we consistently meet the timescales we have promised our customers.
- Invest in our digital technology so our customers can access information at a time of their choice.
- Work with other utility companies and local councils to reduce the impact that roadworks have on traffic disruption in our supply area.
- Make improvements to our billing system to help us to identify if our customers need any of the additional services which we offer. Use data to improve our service, like sharing our street works information with third parties so

customers can see the impacts of our work on traffic and plan accordingly.

As the final design of C-MeX has not yet been published, long-term projections have not been set for this performance commitment at this time.

We have however included information in our long-term ambition document, ***Bristol Water…Clearly***, published in February 2018. This included our proposed performance commitments, 2025 forecasts and 2050 forecasts. We framed our long-term ambition in the context of proxy measures, such as the SIM and the UKCSI.

To succeed against our **D-MeX** performance commitment, we will:

- Ensure developers are able to get everything they need from us via our online portal. We will be responsive and help them to get the job finished quickly. We will continue to simplify processes and make technology improvements to make complicated tasks as effortless as possible.
- Meet industry developer service standards.
- Improve the transparency and certainty of our developer charges – ensuring that developers are aware of the full range of market choices available to them.

To succeed against our **R-MeX** performance commitment, we will:

- Ensure retailers are able to get everything they need from us via our online portal. We will be responsive and help them to get the job finished quickly. We will continue to simplify processes and make technology improvements to make complicated tasks as effortless as possible.
- Meet industry developer service standards.
- Improve the transparency and certainty of our wholesale charges.
- Monitor the number of non-household voids and liaise with retailers to keep these to a minimum.
- Continuing to carry out desktop analysis on vacant properties and further investigating by means of a site visit. On completion of the site visit if our findings are correct, we provide all evidence of occupancy to the relevant retailer as an aid to encourage them to change the occupancy and start billing the customer.

7.6 Promise: inclusive services - meeting the needs of customers in vulnerable circumstances

Our customers' views

What matters the most to our customers

We play a key role supporting customers that may be in vulnerable circumstances and ensuring everyone has access to the water they need. We work with stakeholders in the community to offer support services and where we have a close working relationship, stakeholders are generally happy with the support we provide. We are expanding the scope of how we view vulnerability, recognising that it varies for each customer and with events over time. There is an opportunity for us to collaborate more closely, beyond financially focused stakeholder groups (such as groups who work with people with sensory deprivation, or mental health issues).

Our customers value honest and transparent communication, and regular updates. When we asked our customers about how well we support them in difficult circumstances, for example during supply interruptions, they told us that they need more notice for such events and a clear sense of how long the interruption may last. They requested delivery of water directly to the most vulnerable within a few hours. We also seek to ensure information reaches people who may not have access to our normal communication channels.

Customer feedback on our draft business plan

When we presented our draft ***slower***, ***suggested*** and ***faster*** business plan trajectories to our customers, 64% chose investment levels beyond those of the *slower* plan, and often mentioned vulnerability as a reason for their choice, seeing it as a worthwhile investment. Some of our most engaged customers questioned whether our proposed performance commitment of 'satisfaction' was the best measure for how much we are doing to support vulnerable customers. They suggested an alternative metric based on the number of customers helped. We believe that the satisfaction measure is valuable, because it captures how well we performed, not just how many customers we helped.

In general, the most popular alternative plan (with 49% support among our customers) was the ***suggested* plan**, despite the additional cost.

Twice as many customers supported the *faster* plan for inclusive services as compared to those that supported the *faster* plan for customer experience (15% versus 8%). Future customers, affluent customers and rural customers all supported higher levels of help for customers in vulnerable circumstances. "Safely affluent" customers were more likely to select the *faster* improvement plan for vulnerability assistance, while "social renters" were more likely to select the *slower* plan.

In our final plan acceptability testing, in the context of both comparative information and the proposed bill, 77% of customers agreed with our plans to improve vulnerable customer satisfaction and only 3% disagreed.

Figure 35: An extract from our Vulnerability Action Plan

What we have achieved so far

We understand that our approach to helping customers in vulnerable circumstances needs to be personalised to meet individual needs.

Using our joint billing arrangement, Pelican, with Wessex Water, we are able to offer a joined up approach to vulnerability assistance through a single Priority Services Register (PSR), which is our register of vulnerable customers

We use our Priority Services Register to **offer a range of additional services to support customers who need them**. This includes support which ranges from providing communications in Braille, large print or a language other than English, to extra assistance in the event of water supply interruptions.

Around 4,000 (less than 1%) of our customers are currently listed on our Priority Services Register and they tell us that in general, their experience of it is positive. Notwithstanding this benefit, we need to do more boost the number of our customers that receive this service. Our research tells us that many customers would benefit from additional support but are not yet registered.

We work jointly with Wessex Water through our Vulnerability Action Plan (VAP). One of the aims of the group is to engage with relevant third party organisations across the full range of factors linked to vulnerability. Establishing relationships with these organisations - which include national organisations and local community groups such as charities, councils, social services, supermarket pop-ups, advice centres, health professionals and specialist schools - has the potential to improve our access to customers in vulnerable circumstances in order to offer them support, and simultaneously makes it easier for customers to self-register their vulnerability.

We also participate in promoting the vulnerability assistance available with other utility companies, such as Western Power Distribution. We respect personal data and have a strong data compliance programme, in line with GDPR regulations. These regulations can limit data sharing but we work with others to address this issue.

Additional progress over the past six months

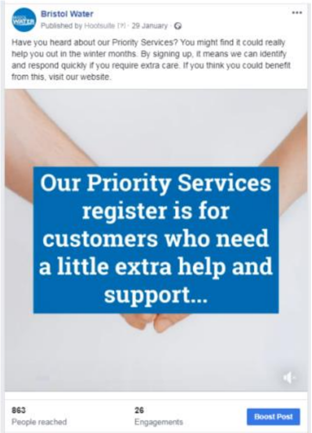
The ability to identify and provide service tailored to the needs of our most vulnerable customers is a major focus for us. For this reason we are working alongside our peers in the water and energy sectors to improve how we share data on our Priority Services Register. This data will provide increased visibility of those customers who require additional assistance and through an expanded set of needs codes, allow us to customise the services we offer. This is a major contributor to achieving our 7% PSR target by 2024/25.

Through a multi-million investment through Pelican, we are developing a modern billing platform that will allow us to cater for the needs of our customers both today and into the future. The new platform will make it easier to identify and better serve our most vulnerable customers and those who are experiencing issues with the affordability of their bills, allowing us to intervene sooner and minimize customer distress.

As mentioned in our September submission, we have contacted all of our customers who receive dialysis treatment and are registered for constant water to ensure that their information is up to date and to confirm that they still require the services. We also asked them how satisfied they are with our service, 100% of these customers confirmed that they were satisfied.

In addition, we are sending personalised letters with our bills to all customers registered for priority services which will result in 100% of customers contacted. The letters will ask customers to confirm whether they still require the services and seek to identify whether there are any additional services that they would like to register for. In the case that we do not receive a response via written confirmation, we have established processes to use other methods of contact to reach the customer. For example we will use telephone or email, tailored to their preference and individual circumstances. We do not have pre-existing data to indicate the level of response we will get back from customers however we will be making every endeavour to achieve positive responses. Going forward, this process will be completed every two years to fulfil our commitment to 90% of customers on the register (although we expect to achieve 100%). As well as this, we will be proactively asking customers to confirm their data when we have any further communication with the customer.

The promotion of our Priority Services has been a key area of focus over the last six months. In December, we have launched our new online web form for Priority Service applications and we have received over 50 applications to date. We have been promoting the services on social media as well as including prominent messages on bills to raise awareness to all of our customers.



We have also hosted a workshop with 27 of our debt advice partners to understand their views on how we can increase awareness of PSR. We are also working together with the agencies to increase PSR sign up for the eligible customers that they see on a routine basis, simultaneously with the social tariff applications they complete with customers.

In January 2019, we signed a joint data sharing agreement with our local gas distribution network, Western Power Distribution (WPD), and Wessex Water which puts us ahead of the industry's national data share ambition. We are in the process of retrospectively registering customers who signed up to WPD and provided their consent from April 2018 to now. Once this group of customers have been successfully registered we will look to register the additional customers alongside any new WPD registrations going forward.

In addition, we are also making significant progress with our preparations for the national data share in line with the utility industry. We are active participants on the working group and are fully committed to being ready for the pilot in October 2019 and subsequent 'go live' date in April 2020. We have already started mapping our services to new industry standard codes and are exploring training options for our customer facing employees to spot and capture needs which go beyond our existing water service requirements.

Our PCs demonstrate our commitment to supporting all customers as well as those who are in vulnerable circumstances. Our ease of contact PC tracks how easy our services are to access for all of our customers. As well as this, we recognise that customers with additional needs may have different access requirements. With this in mind, through December 2018, we commissioned an accessibility assessment of our services by the Digital Accessibility Centre. The centre specialises in assessing usability of services and is tested by users with a range of disabilities to ensure we have inclusive service design which meets best practice standards for all.

Response to the IAP

From reviewing the vulnerability plans across the industry we agree that we need to be more ambitious with our targets in this area. We have recognised this within our response to the IAP actions and intend on updating our full Vulnerability and Affordability strategy ahead of the draft determination.

We have now submitted our additional Priority Services performance commitment to reach 7% of household customers on the register by 2025 and 90% of our priority service data checked every two years. The number of customers registered for priority services by 2025 is three times our original plan; however, we believe that this is achievable due to new methods of data exchange which we were not fully aware of during the initial submission window. There is uncertainty however over the total number of customers in our area who would register for our additional care services through our PSR. Quantifying customer eligibility for Priority Services is difficult because vulnerability is transient and can be caused by external factors. Also customers require flexible, tailored support to meet their needs rather than a blanket approach based on their circumstances. See C2: Addressing Affordability and Vulnerability for more information on how we are supporting these customers.

Together with our bespoke satisfaction of vulnerable customers PC, we now have three commitments specifically related to supporting customers who require additional support services. This number demonstrates our commitment to supporting customers in vulnerable circumstances and we believe these targets are ambitious but achievable.

Case study: Data share with WPD

In January 2019, we signed a joint data sharing agreement with our local electricity distribution network operator, Western Power Distribution (WPD), and Wessex Water which puts us ahead of the industry's national data share ambition.

We are in the process of retrospectively registering customers who signed up to WPD and provided their consent from April 2018 to now. Once this group of customers have been successfully registered we will look to register the additional customers in manageable groups alongside any new WPD registrations going forward.

Case study: Hard to reach projects

In 2017 we piloted our hard to reach community projects which provide funding to local community based one-off projects to raise awareness and increase take up of our affordability support amongst our hardest to reach customers. The projects were successful and so we ran them again in 2008.

To build on the success of the projects in 2017 and 2018, a key condition for the 2019 projects was that the projects must be a partnership between local advice agencies and foodbanks to raise awareness and to increase take up of our affordability support amongst those customers that need it most in our hard to reach areas.

Successful projects which we have agreed to fund include:

- South Bristol Advice working with The Withywood Centre & Counterslip Food Bank
- North Bristol advice working with North Bristol Foodbank
- Bristol North West Foodbank working with partner foodbanks
- North Somerset CAB working with Weston Food Bank
- Sedgemoor Citizens Advice working with Burnham foodbank and Highbrigbe foodbank

Our performance commitments for this promise

Percentage of customers who are satisfied with the vulnerability assistance they have received

PC Type: Bespoke, new, residential retail control

ODI Type: Reputational

PC Driver: Customer support for supporting the vulnerable and improving satisfaction

Description: This performance commitment measures the percentage of customers within our supply area receiving vulnerability assistance who are satisfied with the assistance given. It will be based on an annual survey of customers.

This is a new performance commitment for AMP7 and reflects Ofwat's requirement for water companies to include at least one bespoke performance commitment addressing vulnerability in their business plans. Our commitment was the one most favoured by our customers and stakeholders.

Benchmarking: As this is a new measure, comparative information for the industry is not available, nor is historical information within Bristol Water. We do know however, that the percentage of our customers registered for our priority services is low in comparison to other companies.

Changes to this PC

Changes have been made to the definition of this PC in response to the IAP action BRL.OC.A33. The survey sample has been increased from 300 to 500 customers.

Other Actions (No Changes to this PC)

No changes have been made to this PC in response to the IAP action BRL.OC.A34. This action challenged the target for this PC, based on "the existing rating on PSR customer satisfaction". We have responded to clarify that the measure which Ofwat was referring to was "easy to contact" level of service. Our target of 85% was derived from a pilot survey which asked about satisfaction with our service to PSR customers.

Our targets and incentives

Our target is set based on our aspiration to exceed current levels of satisfaction from our general satisfaction survey by c5%.

Our long-term ambition is to achieve a 100% satisfaction rate amongst our vulnerable customers.

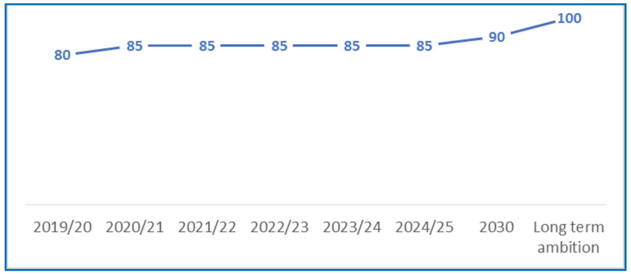


Figure 36: Percentage of Customer who are satisfied with the vulnerability assistance they have received

This performance commitment has a reputational ODI based on the feedback that we received that customers would not understand the logic of incentives in this area that had an impact on customers' bills. There is a strong reputational incentive to achieve or outperform our performance commitment levels because we report how well we are doing in our Annual Performance Reports. The reports are publicly available on our website, which enable our customers and the Bristol Water Challenge Panel to hold us to account on our performance. We also report via an interactive performance webpage, where our customers can learn about our reputational and financial performance commitments.

In addition to our bespoke vulnerability performance commitment, we will also report our performance against the following metrics:

- Percentage of customers aware of the non-financial vulnerability measures offered.
- Number and percentage of customers on priority service register (PSR).
- Number of customers receiving the following services through the SAR/PSR:
  - Support with communication.
  - Support with mobility and access restrictions.
  - Support with supply interruption.
  - Support with security.
  - Support with 'other needs'.
- Percentage of customers satisfied that the services provided are easy to access.
- Percentage of customers on PSR contacted over the past two years to ensure they are still receiving the right support.

Reason why our target is stretching

Results from the July 2018 UK Customer Satisfaction Index survey, the UK's largest cross-sector benchmarking study, showed that the all-sector average satisfaction is 77.9 (out of 100) and the utilities sector average is 74.4. We believe a reasonable stretch beyond this for the services we provide to vulnerable customers is 85% satisfied customers, with a long-term ambition of 100%.

Percentage of customers who are registered for priority services

PC Type: Common, new, residential retail control

ODI Type: Reputational

PC Driver: Expanding the reach of priority services offered to vulnerable customers

Description: This performance commitment measures the percentage of our customers who are registered for our 'extra care' services through our Priority Services Register (PSR).

In the IAP, Ofwat required all companies to adopt this new common performance commitment, with the expectation that companies set a minimum target of 7% for PSR reach / 90% contact to check data every two years.

Benchmarking:

We have assumed a baseline level of performance of 1.6% of customers on our PSR in 2019/20.

Changes to this PC

This PC has been added to our outcomes in response to the IAP action BRL.AV.A3, which prescribed the introduction of this PC and the target level.

Our targets and incentives

We have set a target of 7% by 2025.

As outlined in the App4 data table and commentary, we anticipate a 58% increase in customers registered for PSR in 2019/20. The increase is due to a number of factors including new priority service bill messaging launching at the end of 2018/19, our new online application form and our local data share with Western Power Distribution (WPD). Our local data share with WPD is now underway and, as of March 2019, we are already retrospectively registering customers that have already signed up to the WPD priority services (since April 2018). This activity puts us ahead of the national data share initiative that is underway with WaterUK.

From April 2020 the national data share will be in place therefore we are forecasting a 98% increase in Priority Services registrations, taking into account a large number of customers who have registered in previous years with their energy providers. We then expect this number to tail off throughout the remainder of the AMP as those who are eligible will have already registered. As the saturation increases it becomes harder to engage with the remaining eligible customers who may be harder to reach or resistant to registering their personal needs.

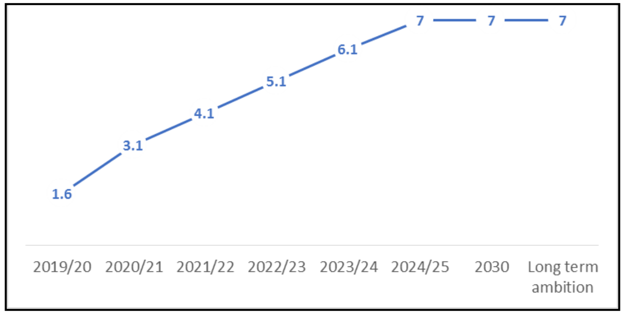


Figure 37: Percentage of Customers registered from priority services

This performance commitment has a reputational ODI.

Reason why our target is stretching

To reach the 7% target by 2025 / 90% data contact check every two years, we will need to increase the number of customers on our PSR by over 430%. The commitment in our original business plan was to triple the number of customers on the register.

Our plans for 2020-25 and beyond

To succeed against this commitment, we will:

- Increase the number of customers we support through these additional services to 7% of total customers, an increase of c34,000 customers since 2017/18, while making sure that the experience that we offer is the best of all the utility companies. We will also contact customers to check their data, at least 90% will be contacted every 2 years and we will target 100%.
- Carefully share data with other utilities to help us to identify customers who may need additional support, at times in a way that respects privacy and legal obligations. We plan to expand our innovative partnership with Western Power Distribution to sign post our vulnerable customer services through the energy sector.
- Increase our promotion of the support we make available, working with community groups to achieve this.
- Increasing awareness of the support available for customers, encouraging them to "spread the word".
- Ensure that customers who are registered for our extra care services receive tailored information.
- Taking a customer rather than asset view of operational events, and through our transformation project using our innovative approach to integrating systems with our supply chain to meet customers' individual needs. This will develop for the long-term by tackling inclusive services beyond water, developing an integrated approach to tackling social vulnerability, for instance through the Bristol "One City" initiative.

7.7 Promise: affordability for all

Our customers' views

What matters the most to our customers

We recognise that affordability is a major concern for some of our customers and we were one of the first water companies to introduce a social tariff. We know from talking to our customers, that helping those who struggle to pay their bill is important. To help us to understand how we can improve the support that we already offer, we visited a number of customers who receive extra support. They told us that once they had made contact with us, their overall experience was positive and we were easy to work with. However, we know from wider research that our customers feel that more could be done to raise awareness of the help we do provide.

We know from our discussions with customers that treating customers fairly is important to them. They encourage Bristol Water to help those who need assistance with their bill and to reduce the number who are not paying for other reasons, such as through properties incorrectly registered with us as empty, or "void".

Customer feedback on our draft business plan

When we presented our alternative ***slower***, ***suggested*** and ***faster*** business plan trajectories to our customers, 74% agreed that we should support customers who cannot afford their bill. In addition, 82% said we should encourage customers to pay what they can afford towards their bill.

We asked customers about social tariffs and whether we should maintain the current level of cross subsidy, or whether we should support more customers. Over half of customers agreed with an increase in bill to support 75% of those who could potentially benefit from social tariffs (an increase from the current 50% of customers supported). When asked whether we should support all customers through social tariffs, with a corresponding bill increase, 42% of customers agreed.

Safely affluent customers and comfortable families are more likely to choose the *faster* option, while thirsty empty nesters have a lower level of support for all options.

The importance customers place on value for money can be seen in the qualitative responses to the customer survey and consultation. In the customer survey, lower bills were the most commonly raised issue. Value for money was the second most commonly raised issue across each of the outcomes. Customers who preferred the *slower* plan often suggested there was a need to minimise bills, while customers who support the *suggested* or *faster* plans argue that they would provide good value for money.

Customers also sometimes indicated that they preferred the *slower* plan for issues which they nonetheless consider as high priority. This can be seen in the responses to proposals for leakage, water use, water appearance and water taste and odour. We consider this to be indicative of the importance of cost and value for money to customers.

Based on our customer data, we concluded that **the final bill level should be no higher than that in the *suggested* plan**, and a plan which has a lower bill level is likely to be accepted by more customers – particularly in low-income groups.

This was a key driver for the financing cost and efficiency assumptions made by the Board in developing this plan. In return for this lower cost for all, we also considered how financial risk and return could be balanced with up-front bill reductions.

What we have achieved so far

Our commitment is to continue to eliminate water poverty. We define water poverty 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'. We have already achieved 0% of our customers in water poverty and our social tariffs go beyond this by supporting customers who struggle to pay but may not be in water poverty, for example customers on pension credit who do not meet our definition but would benefit from some extra support with their bill payments. Therefore

C1 / Engagement, communication and research

C2 / Addressing affordability and vulnerability

we will use our social tariffs to continue to support customers who are eligible for additional help with their bills.

We already offer what we consider to be industry-leading support to those customers who struggle to pay their bill, including discounted bills through 'social tariffs' and debt management support. We have a total of c15,400 customers receiving assistance through one of our three schemes, an increase of 56% over the number in 2017 and more than double the number five years ago. See C2: addressing Affordability and Vulnerability for more information on how we are supporting these customers

This year we are expanding access to social tariffs, to those who receive a bill via a third party rather than directly from us, such as those in supported accommodation.

To reach out to more customers in need of financial assistance, we work jointly with Wessex Water to partner with a number of charities.

Our primary aim is to keep our customers' bills as low as possible while still delivering the service improvements they want. We plan to do this by identifying new ways of working which save money without compromising service.

Additional progress over the past six months

We have continued to develop our new multi-million pound billing platform over the past six months, in partnership with BWBSL (Pelican) our joint venture with Wessex which provides our retail services. The new billing system will more readily be able to identify those customers who are struggling to pay their bill and will be able to offer automated tailored support.

In January 2019 we hosted a workshop with 27 of our debt advice partners to discuss ways to improve our partnerships to identify customers who are struggling to pay.

Case study: Debt advice workshop

Our annual debt advice workshop was held on 21st January 2019 with 34 stakeholders from 22 debt advice agencies. We provided them with an update on plans and introduced some discussion questions which focused on:

How we can work with our partners to increase priority service sign up:

- Time is a constraint – GDPR/consent a barrier and awareness of PSR within agencies is low
- Further training could be required at some agencies
- PSR form to be included in HYWB forms and other forms such as pension credit and WaterSure Plus
- Digital signups through partner hub
- Incentivised sign ups e.g. funding per application
- Some agencies are working with energy providers to sign customers up
- Feedback was that it is not as clear with water as it is with energy on what benefits the customer receives for being on the register

Views on creating an 'accredited agency' scheme to fast track applications for social tariffs from certain agencies:

- Should be based on agencies have other accreditations such as FCA, AQA or MAS
- Should be based on quality applications with a low rejection rate based on a % of applications
- Could provide additional funding per application or secured funding for longer periods of time e.g. 2-5 years
- Audit frequency suggestions ranged from 6 months to 12 months and 10% applications were deemed to be reasonable for checks
- Multiple agencies interested in taking part in a pilot
- Other suggestions included different levels of accreditation and suggestion of passing any resource savings across all funded charities to help all partners – not just those who gain accredited status

We are using the insight gained from the workshop to shape development of our vulnerability strategy.

Response to the IAP

The IAP feedback in relation to our plans for social tariffs was that we had not provided sufficient evidence to demonstrate customer support for our proposed social tariff cross subsidy (action BRL.AV.02).

Evidence was provided in Section C2, Chapter 10 of our original plan, and based on the customer research which took a conservative view of £1.41 subsidy on average, we would be able to support an additional 5,945 customers at the current rate of subsidy, which would mean that an increase in the level of subsidy beyond that which customers have expressed a willingness to pay for is not required until 2021/22. In addition, our voluntary social contract mechanism potentially allows funding when the number of customers supported reaches 75% of eligible customers (in c.2025). We will undertake further research in advance of the process for setting tariffs for 2021/22, to ensure that our proposals reflect social circumstances and customer support at the time). This proposed approach has been discussed with the BWCP and CCWater, who were both supportive of our intentions.

Performance commitments for this promise

Percentage of customers in water poverty

PC Type: Bespoke, retained from AMP6, residential retail control

ODI Type: Reputational

PC Driver: Achieving best ever level of performance

Description: Our water poverty performance commitment will track the percentage of customers whose 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 by estimating income in relation to bill level. It also allows us to evaluate the success of our tariffs and assistance schemes for customers who are experiencing difficulty paying.

To calculate the measure, we use a population analytics model (provided by CACI) to estimate the gross percentage of customers in water poverty, and then deduct those customers who we support through our Assist social tariff.

Benchmarking: As this is a bespoke performance commitment, comparative information from across the industry is not available. We have therefore considered our historical performance to date when proposing our future targets.

In 2017-18 we achieved zero customers in water poverty.

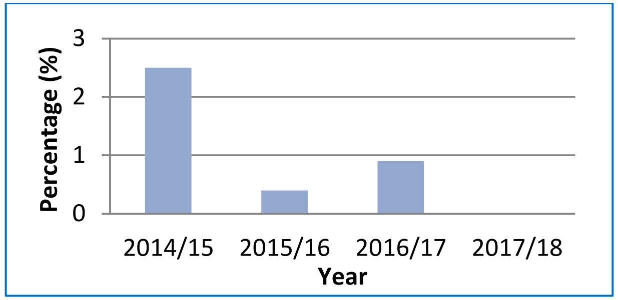


Figure 38: Percentage of customers in water poverty

Changes to this PC

No changes have been made to this PC in response to the IAP (no actions were required).

Our targets and incentives

We have set the target at zero, maintaining our current level of performance.

Based on the views of our customers and stakeholders, we have set this as a reputational ODI. We also note CCWater's support for a reputational incentive for this type of performance commitment.

Reason why our target is stretching

We have set the target to the best level of performance which can be achieved based on our definition of water poverty, which is the best calculation based on currently available data.

Percentage of customers who think we provide good value for money

PC Type: Bespoke, retained from AMP6, residential retail control

ODI Type: Reputational

PC Driver: Customer satisfaction and achieving best level of performance

Description: Our value for money performance commitment tracks the percentage of customers who consider that we provide good value-for-money based on an annual survey of 1,000 customers.

This measure tracks the percentage of customers responding to our annual household customer tracking survey who consider that we provide good value-for-money, by either responding ‘very good’ or ‘good’, after being asked the question ‘thinking about value for money, overall how would you rate Bristol Water in relation to the service they provide?’ The survey would be conducted by phone, using a sample size of 1,000 customers who may or may not have contacted us.

As this is a bespoke performance commitment unique to Bristol Water, comparative information from across the industry is not available. We have therefore considered our historical performance to date when proposing our future targets. This shows that we exceeded our target by one percentage point in 2016-17 but were below our target by three percentage points in 2017-18. Our average performance since 2014-15 is 71%.

Changes to this PC

Changes have been made to the definition of this PC in response to the IAP action BRL.OC.A32. The definition now confirms that the survey will be reviewed with the Bristol Water Challenge Panel and will be conducted in line with social research best practice by an accredited firm.

Our targets and incentives

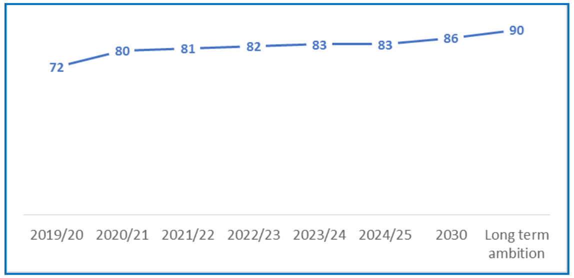


Figure 39: Targets for value for money PC

Reason why our target is stretching

The level of stretch in our performance targets has taken into account our historical performance. At PR14 our target was to improve satisfaction by 2% from the starting level of 70%. We are changing to an annual perception survey to include all customers, rather than customers who have contacted us. This is closer to the survey approach used by CCWater, which currently shows a higher level of performance. Therefore we expect to hit 79% in 2020 with an increase to 83% by 2025.

As this performance commitment has a reputational ODI there is no impact on our customers’ bills. We note CCWater’s support for a reputational incentive for this performance commitment.

Percentage of void households

PC Type: Bespoke, new, residential retail control

ODI Type: Financial - underperformance penalty and outperformance reward

PC Driver: Ofwat expectation and frontier performance levels. To minimise bills through efficient revenue collection.

Description: Our void household performance commitment tracks the annual average number of household properties within a supply area which are connected to our water supply but do not receive a charge (as there are no occupants) as a percentage of the total number of connected households (the “void rate”).

Our definition for this performance commitment is aligned to the definition of void properties used in Ofwat’s Annual Performance Report guidance.

Our proposed performance commitment covers the residential market. For business customers, it is the responsibility of the retailer to manage void properties. We will however continue to monitor the levels of vacant non-household properties in our area of supply. Both ourselves and retailers have commercial incentives to accurately bill and collect revenue for voids and gap sites, and our engagement with retailers suggested we already perform well in terms of market data quality.

Benchmarking: Our analysis shows that we already have some of the lowest void numbers relative to other water industry companies. Our void rate has been 2.0% on average over the last 5 years. In comparison the water industry upper quartile is currently around 2.3%. However, we have set ourselves the challenge to reduce voids still further and have set a target of 1.8% by the 2025. Our target is below the rate of Council Tax data on void properties in the area we serve, which is c2.0%.

Changes to this PC

No changes have been made to this PC in response to the IAP actions BRL.OC.A35 and BRL.OC.A36.

We are performing better than the average on voids (when comparing all companies and companies in non-water stressed areas only) and will be performing better than the average company at the end of AMP7. Our rate is also stretching compared to the level of 2.0% held by the local authority. The target has therefore been retained.

An outperformance payment has been retained. Further customer research has been undertaken to justify its inclusion. The outperformance payment reflects a cash flow benefit and there is clear customer support for this metric. We do not understand how perverse incentives could be created as this would feature in a higher level of voids, which would result in a penalty. Properties are registered when they are connected, and there is an incentive through developer services income to do this. Voids relate to existing, vacant, change of occupancy and other change of use reasons, so registration does not seem a material concern.

Our targets and incentives

We have set our target of 1.8% by 2025 based on our aspiration to improve our void performance still further.

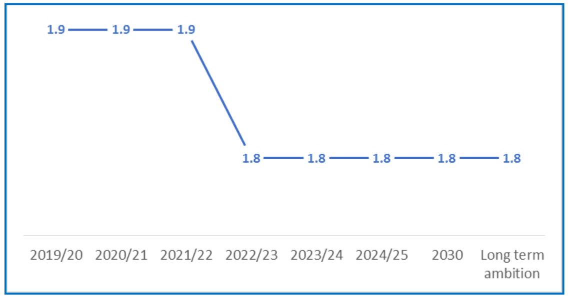


Figure 40: Targets for void households PC

We have set a penalty and reward ODI, illustrated below:

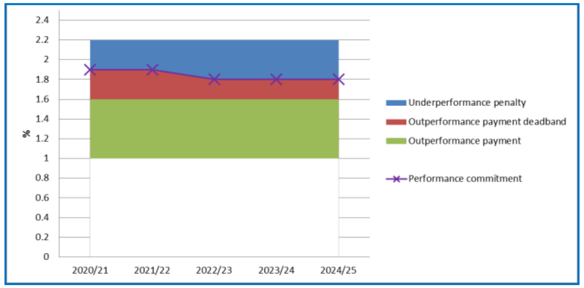


Figure 41: Void households PC ODI profile

Void incentives have been set over a range based on our performance, with a deadband on outperformance payments so small improvements are not rewarded. Outperformance rates have been set based on a cash flow benefit of £23k p.a. per 1% voids and amount to a potential total of £0.07m over 2020-25. Underperformance penalties are based on the cost of finding a void, and amount to £137k p.a. per 1% voids and amount to a total of £0.25m over 2020-25.

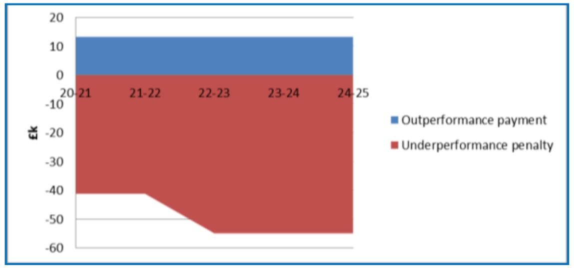


Figure 42: Void households incentives profile (£k)

Reason why our target is stretching

Our target is above average compared to the rest of the industry and below the rate of Council Tax data on void properties in the area we serve, which is c2.0%.

Our plans for 2020-25 and beyond

To deliver against our three performance commitments, we will:

- Continue to ensure that we minimise the number of customers in water poverty by increasing the awareness of the support we offer.
- Keep pace with the rising of the number of people in our region living in water poverty by providing financial support and advice to up to an additional 12,000 customers over 2020-25 (on top of the current c13,500).
- Do more to ensure that those customers who can afford to pay their bill do so, reducing bills for all our other customers. We will proactively

support customers in vulnerable circumstances in every aspect of our business.

- Continue to work closely with and fund our debt advice partners to provide free advice to our customers.
- Boost community awareness of the support we provide by collaborating with local councils, housing associations and advice agencies to identify customers who could benefit.
- Use data wisely to identify customers who may need a helping hand.
- Review the presentation of our bill to make sure it is easy to understand.
- Improve our data and processes through our new billing system to help us collect payment from those customers who can pay, reducing bills for all other customers.
- Use customer segmentation to tailor our support.
    - Find an additional 1,000 occupied void households to reduce voids to 1.8% of our household properties by 2025 by using our metering programme and system improvements to identify occupied voids. This will take us beyond the upper quartile for the industry. We will also support our retailers to reduce business premise voids by helping them to identify these.

Our long-term ambitions (2040-45) for each of the performance commitments which support our Inclusive Services promise are as follows:

- We aim to maintain zero customers in water poverty for the long term.
- We aim to progressively improve our value for money measure to reach 90% by 2045.
- We aim to maintain our percentage of void properties at 1.8% once this target is reached.

7.8 Our delivery incentives for this outcome

The maximum total underperformance penalty for this outcome is £11.9m, which would equate to around a c£4 reduction per household customer per annum.

The maximum total outperformance reward for this outcome is £11.3m, which would equate to around a c£4 increase per household per annum.

The largest incentive range is for C-MeX, with the incentive levels set by Ofwat.

Performance Commitment	Incentive type	2020-25 maximum under performance penalty £m	Annual bill impact £	2020-25 maximum out performance penalty £m	Annual bill impact £
C-MeX	Penalty only	-10.817	£4.00	10.817	£4.00
D-MeX	Penalty and Reward	-0.839	<50p	0.419	<50p
PSR	Reputational				
Satisfied vulnerable customers	Reputational				
Water poverty	Reputational				
Value for money	Reputational				
Void properties	Penalty and Reward	-0.247	<50p	0.066	<50p
R-MeX	Reputational				
		-11.903	**£4.30**	**11.302**	**£4.20**

Figure 43: Outcome delivery incentives summary

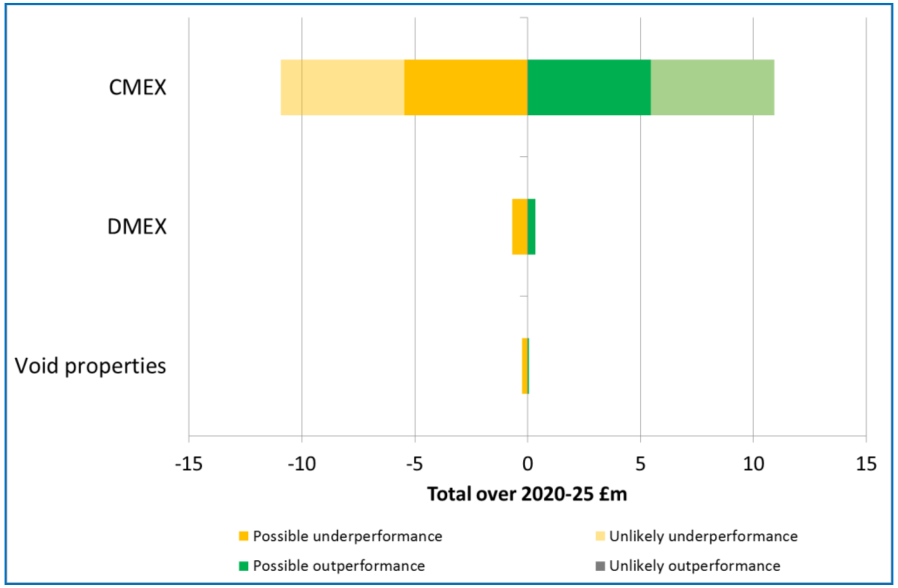


Figure 44: Outcome incentives over 2020-25 in 2017/18 CPIH prices (£m)

8 Outcome 2: Local Community and Environmental Resilience

We will help build local community and environmental resilience. This means playing an active role in supporting the community, engaging with customers and stakeholders and contributing to a thriving and diverse natural environment through our policies and actions. We will save water, and help others do the same.

8.1 Introduction

In this chapter, we explain how we will achieve the outcome of ***local community and environmental resilience*** by delivering on a series of promises that stem from our customer priorities of **'*trust beyond water*'** and ***'saving water'***. We present a summary of customer views, our performance commitments and outcome delivery incentives for the four groups of performance commitments.

8.2 Key Messages

- Going beyond our legal obligations to deliver the environmental improvements supported by our customers, with catchment management providing operational and service resilience.
- Establishing a social contact with our communities through '***Bristol Water for All***'.
- Greater water efficiency choice for customers through market platform.

8.3 Background

To achieve ***Local Community and Environmental Resilience*** we will implement initiatives to deliver on four promises:

- **Building biodiversity and protecting the environment**
- **Community – Bristol Water for All**
- **Promoting water efficiency and metering**
- **Reducing leakage**

These promises are a reflection of what our customers have told us they value, and the need to meet regulatory expectations. They balance stretching performance with bill affordability and value.

To hold us to account, each of our promises is linked to one or more performance commitments. A total of nine performance commitments will be used to track our progress towards this outcome. Each is also linked to an ODI to help ensure that we deliver for our customers.

All nine performance commitments have financial ODIs.

8.4 Changes in response to the IAP

We have removed the outperformance deadband from the Per Capita Consumption PC and reduced the underperformance deadband for the Waste Disposal Compliance PC.

8.5 Promise: Building biodiversity and protecting the environment

Our customers' views

What matters the most to our customers

In addition to our statutory obligations and long-term challenges, we recognise that our local environment is directly linked to the quality and quantity of the product that we supply and the wellbeing and health of society. This is why protecting our local environment today and for future generations is at the very heart of local community resilience.

We also have a responsibility to share our assets and estate with our customers, so that they can enjoy the green spaces and make use of our reservoirs for activities such as fishing and sailing.

We have found that:

- The majority of our customers recognise the need to protect the environment for the benefit of future generations.
- Our customers generally felt that we have a responsibility to the local community and expressed varied opinions on what this should involve.
- Our customers enjoy using our recreational facilities and would like to see them improved. They recognise the value of our lakes to the local community.
- Some customers fed back that they would like to see improving disabled access arrangements to our sites and also greater provision for family cycling and paddle sports.

Customer feedback on our draft business plan

The majority of customers supported our plans to improve the local environment, with 59% of customers choosing improvement programmes which went beyond the ***slower*** option. With 22% of customers supporting the faster improvement plan, this was one of the most popular choices for ***faster*** levels of investment.

Environment was also the factor which appeared to influence customer views when considering the outcome package for Local Community and Environmental Resilience as a whole. There were some polarised views, with some customers saying that the environment was not a concern for them and should not be within Bristol Water's remit. Some customers also commented that they did not understand the biodiversity measure and could not tell whether the proposed improvements were significant. We used this feedback to improve engagement on this topic before our final plan decisions.

There was considerable discussion at the Bristol Water Challenge Panel on the subject. Environmental regulators challenged whether we were being ambitious enough, while we had to identify specific improvements on the limited sites we manage that our customers would support. Our proposals achieve this balance.

Affordability was also a factor influencing the choice of plan, with Social Renters most likely to choose the **slower plan**.

Our performance commitments help us to establish how well we are achieving our outcomes and delivering on our promises. We have five performance commitments supporting our promise of ***building biodiversity and protecting the environment***.

In our final plan acceptability testing, in the context of comparative information and the proposed bill, 72% of customers agreed with our biodiversity plans and only 4% disagreed. Given our bill proposals, those less interested in the environment remain neutral and may accept or trust our plan as a whole.

What we have achieved so far

Our Biodiversity Index approach was established in 2015. Since this time, we have expanded the number of our operational sites and projects adopting the approach, with the aim to leave a positive impact on the natural environment following operational activity and construction works. It has enabled the company to improve its environmental performance, as measured by our Biodiversity Index score.

Activities undertaken include woodland management, tree planting and sensitive ditch and bank reinstatement, to enhance the biodiversity value of our sites.

We are now continuing to develop our approach, to incorporate ecosystem services and social services assessments. This will enable us to assess the benefits that our assets bring to local ecosystems and society and will support the long-term maintenance of our environmental assets in the same way as we maintain our other assets to ensure that they remain fit for purpose in the long-term.

We intend to continue to increase biodiversity at our sites, actively supporting a resilient natural environment across the region.

The other performance commitments cover:

- Catchment management to remove phosphorus, linked to the Mendip Lakes Partnership, through the Raw Water Quality Index commitment.
- Delivery of our legal obligations to environmental and abstraction improvements, through the WINEP compliance commitment.
- Making sure we run our water treatment works and reservoirs in line with legal obligations that protect water courses, through our waste discharge compliance commitment.
- Reducing abstraction at the environmentally sensitive site at Shipton Moyne during dry spells, using the Abstraction Incentive Mechanisms in a novel way.
- Installed over 1 megawatt of solar photovoltaic (PV) energy generation.

Figure 45: Animals protected along the route of our Southern Resilience Scheme

Additional progress over the past six months

Over the past 6 months we have been developing our Biodiversity Index strategy for AMP7 delivery. This work has involved mapping all of the company owned land and identifying the variety and quantity of natural assets the company owns. We have also commissioned the renewal of the Biodiversity Action Plans for our SSSI designated sites and these sites will be surveyed by an ecologist this summer (2019). By ‘ground truthing’ and digitising our environmental data we have started to develop our natural asset register which will be the foundation of our Natural Capital Approach development in AMP7.

We have now confirmed our WINEP AMP7 obligations with the Environment Agency and Natural England. These obligations support a variety of environmental investigations and implementation projects from catchment systems approach to raw water quality, to the investigation of arc site development for the priority native white clawed crayfish species.

On the ground over the past six months Bristol Water has taken part in the Buglife Urbanbuzz pollinators project, working closely with the national environmental charity to create essential feeding and hibernation hotspots for invertebrates in the city of Bristol. This project has delivered four buzzing hotspots across the city, with over wildflower plugs and bulbs being planted, grass cutting regimes amended and bug hotels installed, all to support and mitigate the declining populations of pollinators. This project has brought Bristol Water together with a number of partners including the Princes Trust and the University of Bristol student volunteer Roots Group. Over 9000 plugs plants and bulbs have been planted across four urban sites. The changes in management regimes of sites, planting of additional nectar rich species and installation of invertebrate refugia has improved the biodiversity value of each site.

Significant improvements have been delivered to the Chew Stoke River and woodland habitats along the River Chew. Progress has been made in re-wetting ½km of the River Chew, reducing overshadowing of tall woody growth and restoring the river channel. These significant improvements have immediately created improved habitats for the endangered European Eel, resident otters, badgers and birdlife. We have made great progress due to our strong partnership with the Wild Trout Trust, Bristol Avon Rivers Trust and our regional Environment Agency officers.

Continued partnership with the Wildfowl and Wetlands Trust surveys were conducted over the summer and autumn of 2018 to investigate European Eel habitation and migration near the Severn Estuary. 100s of adult eels were found, however no young eels were recorded. This has provided essential data and information on the need to reduce migration barriers, such as weirs, for the endangered eels’ routes to and from the estuary.

Our performance commitments for this promise

Raw Water Quality of Sources

PC Type: Bespoke, water resources control

ODI Type: Underperformance penalty and outperformance reward

PC Driver: Catchment management to drive changing stakeholder behaviours

Description: This performance commitment measures our progress in implementing catchment management to reduce the run off of nutrients into watercourses that damage water quality across our catchments.

The target, measured as kilogrammes of phosphorus not lost to the water environment, is challenging and requires cumulative delivery across a small defined area where there is likely to be a diminishing return on unit effort over time.

Benchmark: This is a bespoke PC and has no external benchmark. We have set our target based on our performance in AMP6 across the Mendip reservoir catchments (Chew, Blagdon and Cheddar), since the Bristol Water Catchment Grant Scheme was introduced.

Changes to this PC

Further evidence of our methodology, including the use of the Farmscoper model has been provided for this PC in response to the IAP action BRL.OC.A39 which asked for further transparency on the definition of this PC.

Other Actions (No Changes to this PC)

No changes have been made to this PC in response to the IAP action BRL.OC.A40, which challenge the inclusion of financial incentives. An outperformance payment and underperformance penalty have been retained. These incentives have customer support. The incentive encourages innovation in catchment management and wider benefits, beyond legal minimums, which contributes to wider social and environmental benefit.

Our target and incentives

Our target is to reduce phosphate loss by 531 kg over 5 years.

The associated penalty and reward ODI will drive us to deliver catchment management across not only those safeguard zones defined under the WINEP, but to continue delivery elsewhere, particularly across the Chew and Blagdon Reservoir catchments (including those with previous statutory obligations that have been met).

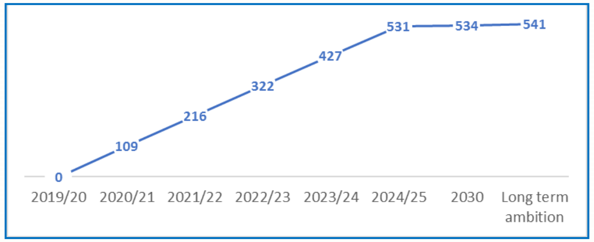


Figure 46: Targets for raw water quality of sources PC

The ODI has been calculated to incentivise delivery of activities which reduce phosphorus in entering water courses.

Outperformance rates have been set based on a local Environment Agency study for improving river quality. This calculates a value of £368 per kg of phosphorus removed from a water source.

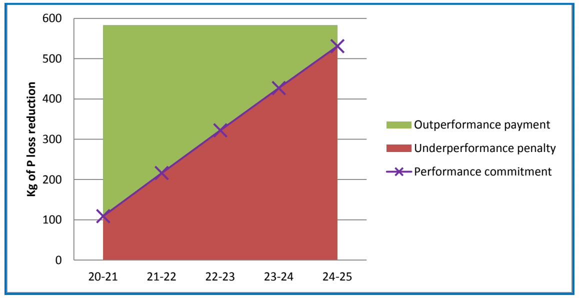


Figure 47: Raw water Quality PC ODI profile

The potential outperformance for early delivery (or up to 10% extra) amounts to £184 per kg of Phosphorus, or a total of £0.24m over 2020-25. Our costs amount to £311 per kg of phosphorus removed. We use the standard Ofwat methodology calculation to arrive at an underperformance incentive rate of £212 per kg of P removed, a total potential penalty of £0.34m over 2020-25.

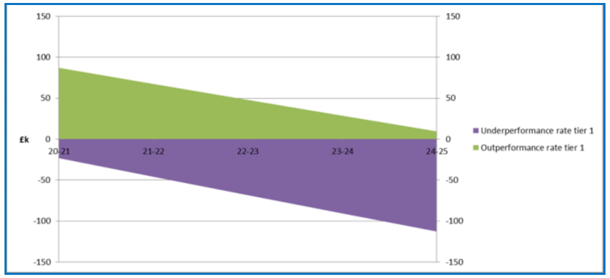


Figure 48: Raw Water Quality PC incentives Profile (£k)

Reason why our target is stretching

The target is challenging and requires cumulative delivery across a small defined area where there is likely to be a diminishing return on unit effort over time.

Biodiversity Index

PC Type: Bespoke, 50% water resources, 50% network plus

ODI Type: Underperformance penalty and outperformance reward

PC Driver: Customer and stakeholder desire to protect the environment for future generations. Government objective of water companies working in a way that delivers wider benefits to natural capital.

Description: Our innovative biodiversity index gives a score for the quality of the habitat that we are responsible for, with ten points being equivalent to around one hectare of high quality habitat.

This PC will measure our delivery of an annual net gain to biodiversity on our sites. This will require work over and above the active management we currently undertake to maintain condition status of habitats, in order that impacts of capital improvements are more than compensated. Our plans include a strategy for maintenance and enhancement of reed bed, woodland, hedgerow and grassland habitats across sites.

Benchmark: This is a bespoke PC and has no external benchmark. Our baseline includes our statutory environmental programme (and will penalise the environmental impact of non-delivery in addition to our WINEP compliance measure), and also includes current delivery beyond the legal minimum as part of our Biodiversity Action Plan.

Changes to this PC

This is an innovative PC - the long term objective is to encourage the use of this tool on non-Bristol Water sites and for this approach to become a natural capital accounting tool as the principle of the PC allows for the learning to develop.

The collar has been retained and further customer research has been undertaken to support our pre-existing research, which justifies its inclusion. In addition, the underperformance collar level avoids double counting with other underperformance incentives, such as the WINEP compliance PC.

Our targets and incentives

Our target of 17,711 by 2025 is an improvement of 52 points over the five years and is equivalent to around five hectares of high quality new habitat. This target is based on our engagement with customers and their feedback on our draft plans.

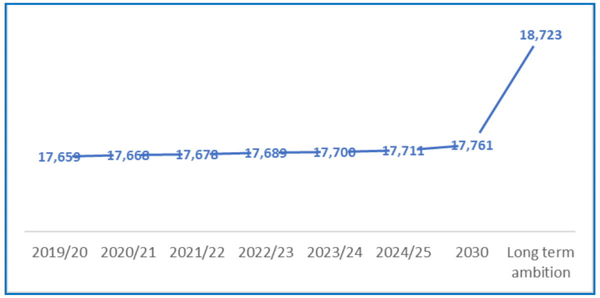


Figure 49: Targets for Biodiversity Index PC

The penalty and reward ODI is based on customer valuations for environmental improvements. The underperformance penalty recognises that the biodiversity index can deteriorate, as well as improve.

Underperformance is capped at the worst historical performance since the biodiversity index was developed. Outperformance collars are based on the faster plan we consulted on with customers, which reflected a study into what biodiversity potential could theoretically be delivered.

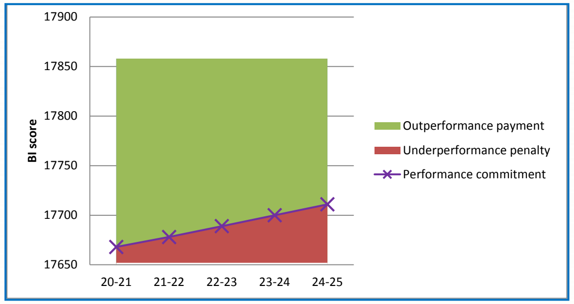


Figure 50: Biodiversity Index PC ODI profile

Outperformance rates have been set based on a third party study into the environmental benefits of habitat sites. This suggests a value of £8,539 per hectare at good biodiversity status, or £854 per BI point. The potential outperformance for early or additional delivery amounts to £427 per BI point, or a total of £0.36m over 2020-25. Our costs amount to £265 per BI point. We use the standard Ofwat methodology calculation to arrive at an underperformance incentive rate of £721 per BI point, a total potential penalty of £0.13m over 2020-25. This reflects there are legal (WINEP) compliance penalties for below baseline performance.

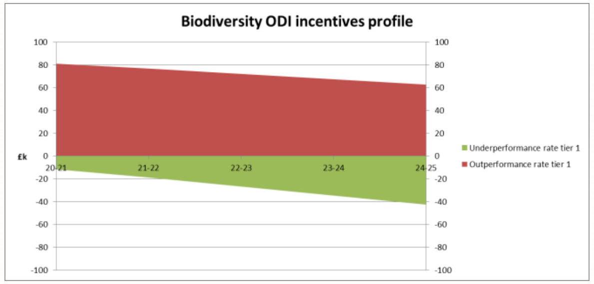


Figure 51: Biodiversity Index incentives profile (£k)

Reason why our target is stretching

Our AMP6 targets were to increase the biodiversity index by around 1 point every year. Our AMP7 targets will increase biodiversity by around 10 points every year. This is a challenging ambition because of the limited opportunities at Bristol Water's sites that remain available.

Waste disposal compliance

PC Type: Continuation of PR14 metric, water network plus control

ODI Type: Underperformance penalty only

PC Driver: Environmental legal obligations

Description: This performance commitment measures compliance with Environment Agency discharge permits.

Benchmark: As this is a bespoke performance commitment unique to Bristol Water; comparative information is not available. Our 2017-18 internal benchmark was 98.1%. As a legal obligation a target should be set at 100%.

Changes to this PC

The underperformance deadband has been narrowed from 96% to 97% in response to the IAP action BRL.OC.A43, reflecting less uncertainty on our new discharge consent

Our target and incentives

The target has been set at 100% compliance

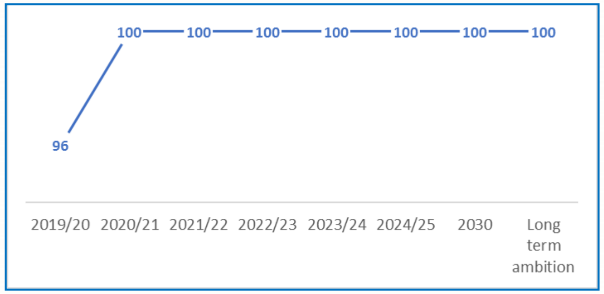


Figure 52: Targets for waste disposal compliance PC

Following the publication of the draft Business Plan, we took advice from our stakeholders, in particular the Environment Agency, who recommended that this metric include a penalty ODI. An underperformance penalty deadband has been included, and although our target in AMP6 is to achieve 100%, our baseline has been forecast to achieve 96% compliance.

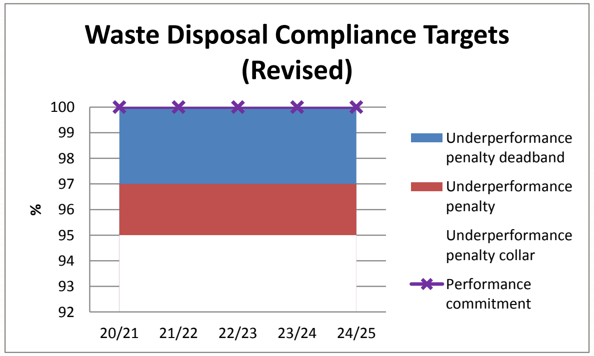


Figure 53: Waste disposal compliance ODI profile

This reflects that we have a consent that has recently been imposed on a fish farm at Blagdon Reservoir, which has not historically been the case. The deadband reflects uncertainty as to whether the consent will be changed, and to avoid penalising temporary performance issues. The EA can also take enforcement action or prosecute in addition to this outcome incentive if they are unhappy with our compliance performance. This uncertainty has narrowed since our original plan.

The underperformance rate has been set based on our compliance costs of £17k per annum and is £9k per 1% non-compliance. The total potential penalty is £0.09m over 2020-25.

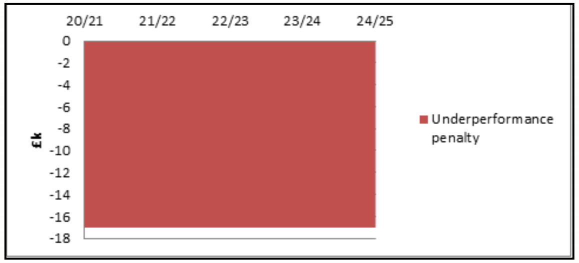


Figure 54: Waste disposal compliance incentives profile (£k)

With a penalty only ODI, we must exceed 97% compliance to avoid a penalty. A collar on underperformance is set at 95% so the penalty applies immediately at below recent performance.

Compliance with the Water Industry National Environment Programme (WINEP)

PC Type: Mandatory, water resources control

ODI Type: Underperformance penalty only

PC Driver: Environmental statutory obligations

Description: The metric will measure compliance with requirements of WINEP around delivery of all of our WINEP requirements. Each of the 51 WINEP actions will count equally and the percentage completion each year will result in an underperformance penalty if the Environment Agency or Natural England are not satisfied that the obligations have been delivered. The WINEP requirements are:

- Develop a company-wide Biodiversity Action Plan linked to our natural capital accounting tool, the Biodiversity Index.
- Monitor, investigate and mitigate issues around invasive non-native species on our sites and relating to raw water transfers.
- Investigate abstractions which might be causing deterioration under the Water Framework Directive (WFD), and where required consider options to mitigate effects.
- Continue work to reduce effects of our reservoirs on downstream river water bodies to meet WFD objectives.
- Undertake investigations to determine causes of catchment water quality issues and potential to improve raw water quality using innovative approaches.
- Implement programmes of catchment management to improve water quality in certain sources and to maintain condition of nationally designated sites.
- Implement eel protection as required under the Eel Regulations 2009 and according to EA policy.

Benchmark: This is a new indicator. As 100% delivery of legal obligations are required, and during AMP6 us and other companies appear to be delivering all of the quality improvements required, the benchmark appears to be 100%.

Changes to this PC

No changes have been made to this PC in response to the IAP (no actions were required). This is on the basis that our related enhancement expenditure will be reflected in determinations, following our IAP response.

Our target and incentives

The target has been set for 100% compliance.

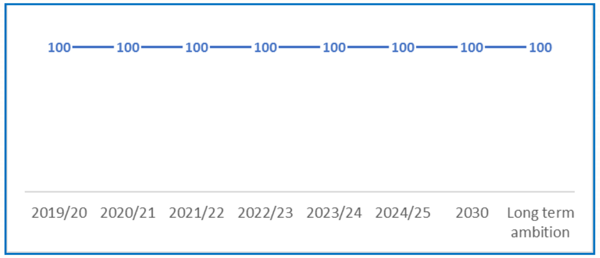


Figure 55: Compliance with WINEP

It is a penalty only ODI, without deadbands.

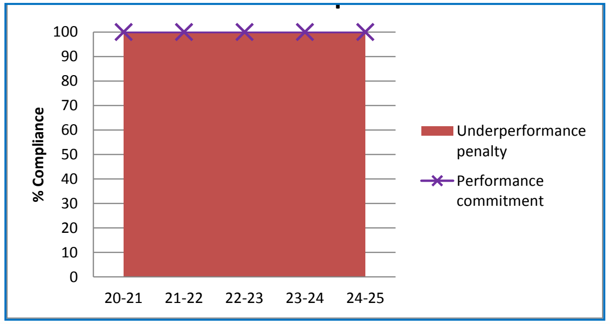


Figure 56: WINEP Compliance ODI profile

The underperformance rate has been set based on 50% of the annual revenue recovery related to WINEP which amounts to £0.4m per annum by 2025, or £4k for each 1%. The underperformance penalty rate of £2k per 1% p.a. produces a potential underperformance penalty of £1m over 2020-25.

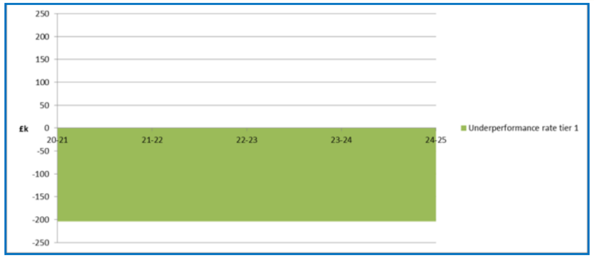


Figure 57: Waste Compliance ODI Incentives Profile (£k)

Reason why our target is stretching

With a penalty only ODI with no deadband, we will receive an automatic penalty if we fail to meet the WINEP requirements.

Abstraction Incentive Mechanism - AIM

PC Type: Mandatory, water resources control

ODI Type: Underperformance penalty and outperformance reward

PC Driver: Environmental regulation and ensuring sustainable abstraction

Description: Performance is measured as the reduction in abstraction during times of low groundwater level.

The metric aims to incentivise reduction in abstraction at Shipton Moyne system (an abstraction linked to environmentally-sensitive sites), see Figure 58, at times where there is a risk of low river flows due to low local groundwater levels.

Benchmark: This is a new bespoke performance commitment for AMP7. The measure is specific to our situation and comparative data does not exist.

Changes to this PC

No changes have been made to this PC in response to the IAP action BRL.OC.A48, which challenged the inclusion of deadbands and the cap and the collar levels.

The deadbands, caps and collars are included in this bespoke PC reflecting the levels at which the adverse environmental impact occurs. We have tested our approach further with customers who support the principles we have applied.

Our target and incentives

The targets reflect specific plans for the Shipton Moyne system, which is a specific AIM-type trial for 2020-25. While Bristol Water has not identified any AIM schemes for PR19, we propose to introduce an abstraction management commitment in relation to the effects of our groundwater abstractions at Tetbury, Shipton Moyne and Long Newnton on river flows in the Malmesbury Avon.

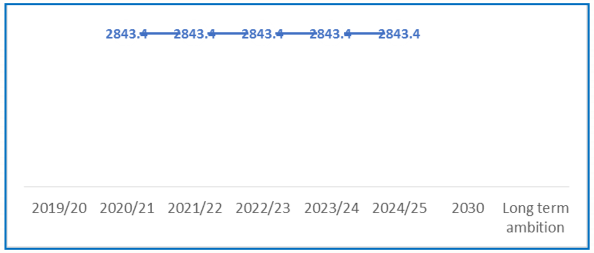


Figure 58: Reduced abstraction from Shipton Moyne

In summary, the proposal is to reduce abstraction from these borehole sources by 0.5 Ml/d compared with the historical 30-day average daily abstraction for these boreholes. The aim is to reduce the impacts of abstraction on the river flows if groundwater levels at the abstraction licence observation borehole fall below a defined level at the start of the hydrological summer (1 April). If this groundwater trigger level is reached on 1 April, Bristol Water will reduce its abstraction by 0.5 Ml/d for the whole of that year (to 31 March) in order to help protect river flows.

Specifically, the abstraction reduction will be implemented if the lower groundwater level control curve at the Didmarton observation borehole at the start of the year (1 April) is reached, there would be a reduction in the 30-day rolling mean abstraction by Bristol Water across the whole year to a revised abstraction rate of 7.79Ml/d. The AIM measure will act above and beyond the existing work that Bristol Water has done in partnership with Wessex Water, where their abstractions in the Malmesbury area have been identified as causing environmental damage and Bristol and Wessex are working in partnership to reduce the impacts of the newer Wessex abstractions.

Although there are no public concerns about the abstractions operated by Bristol Water and though the cause of environmental impact on the Malmesbury Avon is due to the abstraction carried out by Wessex Water using boreholes that significantly post-date the long-term abstractions carried out by Bristol Water in the area, we are nonetheless committed to working in partnership with our neighbouring companies for the best outcome for the environment and water supply resilience.

We consider that the AIM measure proposed here will allow a significant return of water to the natural environment without leading to any reduction in the resilience of public water supply.

The AIM-style reduction will reduce abstraction during a dry year, where a dry year is defined by the level of water at Didmarton monitoring borehole on 1 April of each reporting year. The measure only triggers in an AIM year, and when it does the following incentive design applies:

Table 6: AIM incentive design

AIM	Unit	2019/20 (Baseline)	2020/21	2021/22	2022/23	2023/24	2024/25
PC	Ml	N/A	2843.4	2843.4	2843.4	2843.4	2843.4
Underperformance Penalty Deadband	Ml		2943.4	2943.4	2943.4	2943.4	2943.4
Standard Underperformance penalty collar	Ml		3390.9	3390.9	3390.9	3390.9	3390.9
Outperformance Payment Deadband	Ml		2743.4	2743.4	2743.4	2743.4	2743.4
Standard Outperformance Payment Cap	Ml		2295.9	2295.9	2295.9	2295.9	2295.9

Following discussion with the Environment Agency, we have taken an environmental valuation approach for both rewards and penalties, at an agreed rate of £50/Ml/day from environmental benefit studies.

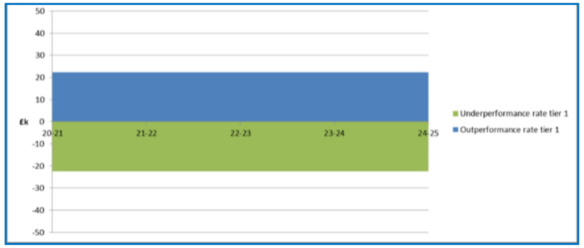


Figure 59: AIM incentives profile £k

Reason why our target is stretching

With an outperformance and underperformance ODI we are incentivised to go beyond the requirements of AIM to deliver additional benefit to the Shipton Moyne system.

Our plans for 2020-25 and beyond

We have developed a programme of interventions to meet and exceed our statutory obligations under the Water Industry National Environment Programme (WINEP). This is summarised in Chapter 5 of this document in the sub-section*: A plan which meets environmental requirements*.

The WINEP itself has been developed through working closely with our Area EA and NE contacts and our proposals will deliver long-term benefits to customers and the wider environment.

In addition:

- We will continue to work on the delivery of solar PV, and continue to target pump efficiency improvements which will include the installation of pump optimisation software to reduce energy consumption and the associated greenhouse gas emissions.
- We will also develop our natural capital accounting tools to investigate the carbon sequestration of our natural assets and use this data to inform habitat management and creation, which provide the additional net gains of increase carbon sequestration.
- We are planning to continue our catchment management programme in the Chew and Blagdon Reservoir safeguard zones because we believe this to be the most cost effective and sustainable way to control algae and associated treatment costs, and infrastructure requirements – these are outside of WINEP. We are working with partners including University of Bath to understand the effects of destratification infrastructure on solubility of nutrients and also to validate the benefits of catchment management approaches.

We have developed ODIs with challenging targets to incentivise delivery beyond our statutory duties and be a company that our communities trust and are proud of.

In the long-term, we expect that the investigations in this period will confirm we are protecting the environment today, with our Biodiversity Index and raw water quality outcomes helping to protect the environment for the future. We may see reductions in abstractions and new environmental requirements in future periods, but there is no clear risk apparent today and any changes would appear to be modest. Similarly, the water resource requirements within the region are also in surplus as we increase metering, reduce leakage and reduce consumption. This is subject to being able to retain our use of water from the Gloucester & Sharpness canal at an efficient price.

8.6 Promise: Community - Bristol Water for All

Making a positive contribution to our communities is central to our company vision "Trust beyond water – providing excellent customer experiences" as well as to our mission *to be a company that our communities trust and are proud of; to deliver excellent experiences and create social and economic value*.

There is clearly a significant degree of overlap between all of our outcomes and performance commitments and our contribution to our local communities, in this section we discuss our community performance commitment, which brings all of these elements together by making specific and tangible commitments to our communities, which are overseen and assessed by our stakeholders. This recognises the role that local stakeholders play, on behalf of customers, in delivering long-term benefits to what we deliver for water quality and the water environment, and to the wellbeing of society.

Our overarching commitment is to engage with our local communities to understand their evolving needs beyond water, to assess how and where we can add social and economic value through the services that we provide, and to then deliver initiatives that achieve great community outcomes.

Our customers' views

What matters the most to our customers

Our customers generally feel that Bristol Water has a leading role in the local community. Our work in the community is not given the same priority by customers as service attributes like water quality and reliability, reflecting the view that doing the basics well should be our first priority. Our stakeholders and our customer forum also tell us it is part of what makes us a good company and there is a growing requirement for us to go beyond our role of water supplier.

Customers participating in deliberative research articulated strong views about Bristol Water's responsibility to the local community but had mixed opinions regarding what this should involve. Some participants advocated for educating young people about water and water conservation and working more closely with schools. Our future customers believe that we have a strong role to play in protecting the local environment, and adding value to the local area through employment, sponsorship, and other schemes, but were less interested in more general community initiatives, as the benefit was less clear. We also know that for some topics like vulnerability, the customers we speak to tell us we need to work with other local organisations to have an effective impact.

We provide access to our lakes and other sites for a range of leisure activities – and as many as 66% of our online panel tell us they visit our facilities at least once a year. However, we know that many of our customers don't visit these sites, or clearly link them with Bristol Water, and in general are not aware of the work that we do in the community. When we do talk to them about this, they are supportive and want us to share it more widely

Customer feedback on our draft business plan

Customers had mixed views on this measure, for example at our Customer Summit some customers argued for dropping it as a distraction from the core business of supply, while others supported it as an important element of what makes us different. Customers who supported going beyond the slower investment programme sometimes commented that a specific and demonstrable impact on the community is needed to justify the investment.

Overall, 55% of customers selected the slower improvement plan, reflecting mixed views on this measure. We found that customers found it difficult to visualise the types of activity which would fall into this category of investment and the benefits that they would bring. We found that when we had the opportunity to explain this to customers in more detail and to provide examples of the types of activities which we would support our communities through, they were more willing to support the suggested and faster plans. This is demonstrated through the results from less deliberative forms of feedback, such as our online survey, where customers were least likely to support plans beyond the slower improvement plan.

As part of our consultation, we asked customers if they had any suggestions for our investments in the community.

Just under half of those who made suggestions raised education and awareness on water saving measures, for example suggesting more education in schools or though events and promotion. Some referred to our recreational facilities with suggestions on cycle paths and improvements to facilities, while others referred to continuing the work we do now such as Refill and our water fountains. Some customers said that they wanted greater engagement with customers suggesting presence at local events, surveys and door-to-door conversations. Improved handling of road works was also suggested.

Since the publication of our draft business plan we have further developed our programme of community activity, with specific targets and activity levels. We tested our specific initiatives with customers and 75% of customers supported a plan that included community initiatives, combined with an ODI where stakeholders would monitor delivery, and our communication of what the benefits had been.

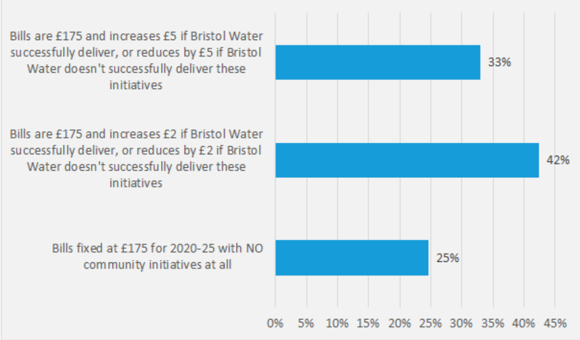


Figure 60: Community incentives research

For customers this reflects the challenge, that in the context of a Bristol Water they perceive as performing well, how we explain what we achieve through our work with community organisations to deal with long term challenges to the environment and society. Our research on customers' views on our key areas of focus and investment included the local community, based on the next 5 to 10 years and beyond.

Customers supported a set of community initiatives and a "social contract" with stakeholders to help ensure that Bristol Water was held to account. From £2 - £5 extra per annum appears justified, but we have used £2 to obtain majority support. Ultimately our final average bill is below the level used in this research, and our final acceptability testing on the final bill profile confirmed the acceptability of the plan including specific testing on the community initiatives.

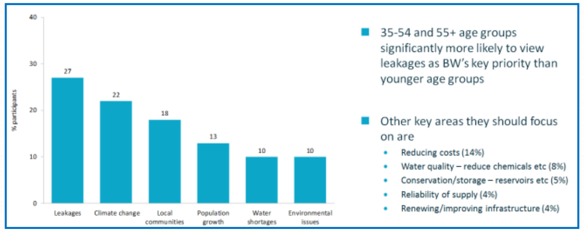


Figure 61: Research results on key priorities

The final telephone survey also confirmed majority customer support for community initiatives. The strong support of the focus groups (and the lower levels of support in less deliberative forums) demonstrates the importance of on-going transparency that an outcome incentive will support.

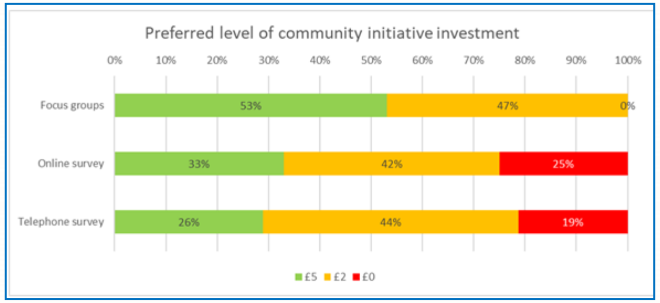


Figure 62: Preferred level of investment in community initiatives

What we have achieved so far

We take great care to recognise the value of our reservoirs, as environmental assets, community assets and water sources. We understand that our estate and the passion of our staff that live in the area that we serve can provide greater value to communities than the important supply of water to the tap.

By example, we were the first to permit sailing on a reservoir, at Cheddar in 1947. In the same decade we also chose to preserve two of the four decommissioned beam engines at Blagdon Pumping Station for community heritage and education purposes.

This proud tradition continues to be at the heart of our brand and ethos. More recent examples include:

- Our innovative Water Bar that has refilled over 45,000 people at local events and festivals for free since it began in 2016. In doing so it has raised awareness of water related topics and plastic waste, as well as directly reducing plastic waste within the community.
- Installation of two water fountains into the centre of Bristol in 2017; one of which delivered 4,000 litres in its first month.
- Increasing recreational opportunity at Cheddar Reservoir from 2017. Partnering with a local community water sports club at Cheddar and with Natural England in 2017 to increase access to 7 days a week seasonally with additional new recreations such as stand-up paddle boarding, canoeing and kayaking; all while protecting the careful harmony with wildlife at this SSSI.
- Establishing local business partnerships for our two lakeside restaurant operations at Chew Valley Lake in 2015 and 2017 respectively, significantly improving visitor experience at these locations.
- Building a partnership with local authorities, rural networking agencies and the charity Sustrans to propose a recreational walking/cycling trail at Chew Valley Lake; working together to bid for DEFRA regional development funding in 2018.

Additional progress over the past six months

In February 2019 we held a customer forum focussed on our social contract concept and community programme. This explored the concept jointly with customers and provided them with an opportunity to ask questions. The session also provided customers with an explanation of the currently proposed themes and initiatives; customers went on to tell us their preferences and reasons. The key headlines from this were that customers really connected with the concept and that education and connecting people with nature were considered the most important themes.

As part of our growing community education strand we have launched an education partnership pilot with Bedminster Down Secondary School. Our first step following discussion regarding desired outcomes was to deliver a careers day aiming to raise aspiration and awareness of the wide range of possible future careers.

On 4th March 2019, 32 staff attended to deliver a range of lessons and a careers carousel to all year 9 pupils. Through this pilot education partnership we are learning how we can best provide value to schools and consider rolling this out across local education trusts.

http://bedminsterdown.net/News/bristolwater

Our performance commitments for this promise

Local community satisfaction

PC Type: New bespoke, 80% wholesale network plus and 20% water resources

ODI Type: Underperformance penalty and outperformance reward

PC Driver: Programme driven by aspiration of community resilience and to reflect our innovative delivery approach as a local water company.

Description: This measures the % of stakeholders who are satisfied with our community contributions, and in particular the specific community initiatives that have been developed as part of our business plan.

Our work in the community is a different level of priority to service attributes like water quality, but our stakeholders and our customer forum also tell us its part of what makes us a good company and there is a growing requirement for us to go beyond our role of water provider. Furthermore, customers participating in deliberative research articulated strong views about Bristol Water's responsibility to the local community.

We propose to measure the delivery of our community programme though surveying our stakeholders, who have close links with local community groups. Part of the process includes oversight by the Bristol Water Challenge Panel to agree changes to the initiatives as required.

Benchmark: This is a new bespoke performance commitment for AMP7. As this is a new bespoke performance commitment for PR19, neither historical nor comparative information is available. However, we have a baseline from our current stakeholder survey, although this does not focus on specific initiatives, but it does provide an appropriate benchmark.

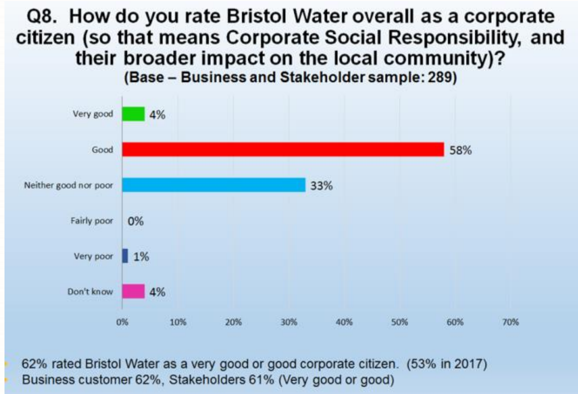


Figure 63: Research results on Bristol Water's performance as a corporate citizen

Changes to this PC

The price control allocation has been changed (to allocate to 80% water network plus and 20% water resources) in response to the IAP action BRL.OC.A44. Our assurance processes identified a minor error in the underperformance incentive rate, which we have updated.

Other Actions (No Changes to this PC)

No changes have been made to this PC in response to three IAP actions.

IAP action BRL.OC.A45 asked us to justify the outperformance payment. The outperformance payment was specifically supported by customers, in our research in our original plan. Customers supported both the direct benefit to communities delivered through this PC and the wider societal benefits that also link to the long-term future of water services. The links are further explored in our social contract. Measurement of stakeholder satisfaction is something customers have recognised as the appropriate measure for this innovative way of working.

IAP action BRL.OC.A46 asked us to demonstrate how the ODI does not double-count with other ODIs. The WTP value for this PC, which the ODI rate reflects, was not used to derive the ODIs for other performance commitments. The WTP reflects the benefit customers gain through the outputs that this PC measures, delivered through collaborative working with our stakeholders. It is based on a specifically obtained WTP, which was validated against wider valuations.

IAP action BRL.OC.A47 asked us to justify the inclusion of caps and collars for this PC. The cap and collar levels are supported by our customers. The collar reflects the current level of satisfaction without this innovative approach. The cap reflects the limit to customers' WTP.

Our target and incentives

We have set ambitious targets based on our current measure of stakeholder satisfaction, where we are achieving levels of 61%. Our proposed delivery incentives are set so that levels of satisfaction below 85% would receive a penalty and levels above would receive a reward. This reflects the benefit of the specific initiatives that we are proposing above a 75% base, which early progress on this aspect of our business objectives (such as Resource West) is designed to achieve by 2020.

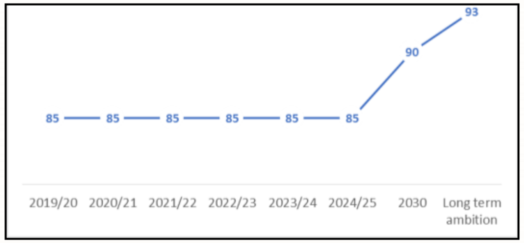


Figure 64: Targets for local community satisfaction PC

The overall ODI design and performance commitment targets are presented in the chart below.

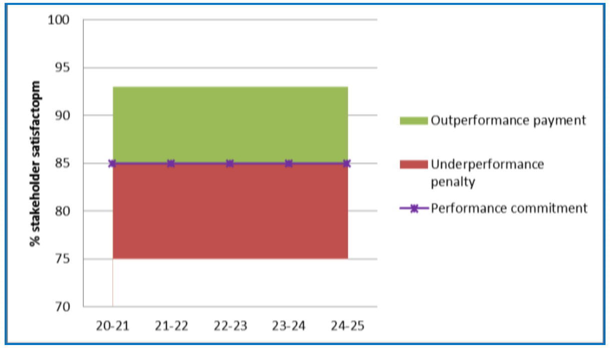


Figure 65: Local community satisfaction ODI profile

No deadbands have been proposed for this performance commitment. Caps and collars have been included for this performance commitment. The cap reflects the level of performance over which we are promoting these initiatives, as over a wider range would dilute the incentive (and below 75% our re-investment through "***Bristol Water for All***" of the company specific cost of debt adjustment kicks in, alongside our UKCSI rating component).

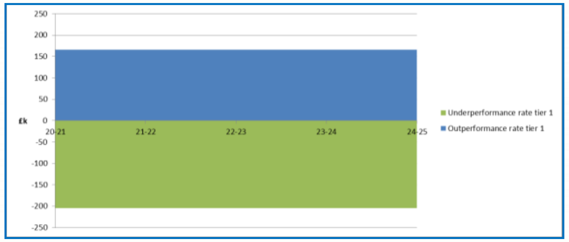


Figure 66: Local community satisfaction incentives profile (£)

Outperformance rates have been set based on the customer survey response of a median WTP value of £2, or £42k per 1% improvement in stakeholder satisfaction between 75% and 100%. This calculates a value of £21k per 1% satisfaction each year and a total potential outperformance reward of £0.83m over 2020-25. Our costs amount to £41k p.a. per 1% improvement. We use the standard Ofwat methodology calculation to arrive at an underperformance incentive rate of £21k per 1% stakeholder initiative satisfaction p.a., a total potential penalty of £1.06m over 2020-25.

Reason why our target is stretching

Our long-term target is 93% satisfaction and will require Bristol Water to engage actively and encourage positive stakeholder participation. The target is stretching as a concept, and also compared to current perceptions of community (alongside customer) excellence. This ODI is essential to our long-term ambition and efficient delivery.

Our plans for 2020-25 and beyond

The specified initiatives within our business plan for this PC are:

- Our commitment to improving education and awareness of water issues, such as the number of pupils receiving a school talk on environmental matters and water efficiency; or the number of initiatives undertaken as a result of the Bristol Water Youth Board.
- Our commitment to community leadership: such as the number of new water fountains opened within our supply area, which builds upon the success of the water fountains opened in Millennium Square and Queens Square.
- Our support for the Bristol Refill campaign.
- Our academic partnerships, such as our water efficiency test site with the University of West of England.
- Our contribution to the Bristol City Mayor and West of England Combined Authority Regional strategies. An example includes the Active Roadworks initiative.
- Our commitment to community engagement: such as the satisfaction with support to the festivals/ community events that the Company has attended.
- Our commitment to improving our customer experiences and opportunities at our lakes and recreational facilities. Roll out the use of the biodiversity index toolkit where we work on

land that we do not own.

- Work with Wessex Water to understand our combined environmental impact and to provide joint billing messages.
- Work with Bristol Waste on resource efficiency messages.
- Form an active network on best practice engagement on resource efficiency with west of England utility companies.
- In expanding and aligning our vulnerability support with Wessex and other utilities.

These commitments are linked to this ODI, but they also form part of our wider community programme. Further information on our community programme is given overleaf and in Section 5 where we give an update on our social contract, which many of our community activities will form part of.

Spotlight on: our community programme

Our wider community engagement plans result from the delivery of our business plan as a whole. Many of the initiatives are captured in other ODIs, or wider corporate resilience. Together these plans include:

- 90 community benefit projects[12]
- 270 community stakeholder organisations engaged/involved
- £3m invested in lakeside amenities for community wellbeing
- 1.5m leisure visits to our lakeside amenities[13]
- 50,000 people refilled from our Water Bars at local festivals
- 15 new community water fountains
- 3000 school children directly involved in our education programmes, such as "Spawn to be Wild" which educates on ecosystems using eels as an engagement and learning experience
- Teaching and learning experiences by aligning local museums and events with a new experience through open days at a refurbished Blagdon Pumping Station museum, which has a working Beam engine and tells the history of Bristol's water supply
- Three new scientific partnerships with academia, building on Europe's largest water efficiency test site with UWE
- 30 environmental restoration projects – going beyond WINEP requirements
- A local population directly benefiting from healthier environments
- Together For Good - a targeted series of donations to community projects
- Supporting WaterAid through our community work
- Cross-utility contribution to trebling the number of customers on our Priority Services Register, and a long-term approach to aligning inclusive services across the social and private sector

Engagement is crucial to successful community outcomes, and so is the commitment to delivering tangible initiatives from start to finish. We are business planning for success in this area, and in line with Ofwat's approach we are proposing an **outcome focussed performance commitment** to drive this success.

The proposed community initiatives for AMP7 delivery are measurable in terms of local community stakeholder satisfaction. The needs and opportunities of our communities will evolve over the next seven years, so we will also be ready to adapt our community plans and to create new projects. We will publish a communities and charities policy. This will address governance and how the community is involved in shaping both our approach and decision-making processes. We will listen to customers and stakeholders, and the Bristol Water Challenge Panel will play a key role in shaping where we focus our efforts to create social and economic value.

We have categorised our community programme into four key themes:

- **Community engagement and partnerships**
- **Community wellbeing and learning**
- **Improving our environment for communities**
- **Charities and customers in vulnerable situations**

We commit to delivering initiatives that benefit customers and communities across all four of these themes. Below we set out how our initiatives will contribute to these themes.

Initiative	Community engagement & partnerships	Community wellbeing and learning	Improving our environment for communities	Charities & customers in vulnerable situations
Water Bar	High	High	High	Low
Refill	High	High	High	Low
Drinking water fountains	High	High	Medium	Low
Together for Good	High	Moderate	Low	High
WaterAid	Low	Moderate	Low	High
Lakeside leisure	High	High	Medium	Medium
Spawn to be Wild	Medium	High	High	Low
Water Industry National Environment Programme	Medium	Medium	High	Low
Biodiversity Action Plan	Low	Medium	High	Low
Blagdon Pumping Station Open Days	Medium	Medium	Low	Low
Youth Board	Medium	Medium	Low	Low
Water Efficiency Test Site – UWE of England	Low	Medium	High	Low
Leadership in societal development & waste reduction	High	Medium	Medium	Low
Vulnerability support	Low	Medium	Low	High

[12] Community projects that are either directly launched or supported by Bristol Water

[13] Requires successful delivery of proposed Chew Valley Lake Recreational Trail project

8.7 Promise: Promoting water efficiency and metering

Our customers' views

What matters the most to our customers

What matters the most to our customers

Our customers told us that we should focus on reducing how much water is used, before developing new supplies.

- Our customers expect us to be responsible in the way that we deliver our services.
- Our customers are generally supportive of the idea of reducing the amount of water that customers use, being most supportive when this is expressed as reducing wastage rather than curtailing their enjoyment of water. Some customers find the concept of paying more on their bill to use less as counter intuitive. Education on water conservation and working with schools is important to many of our customers.
- Our customers have mixed views on metering, with metered customers most likely to support more metering. A voluntary, rather than compulsory approach is felt to be justified in a region where these measures will deliver sufficient supplies to meet demand, and there is no appetite for building new resources just in case.

To meet the challenges of the future, we plan to help customers to reduce their water wastage. We plan to provide customers with the information and the tools that they need to do this.

Customer feedback on our draft business plan

With respect to customer usage of water, most customers saw reducing per capita consumption as an important goal and called for measures like education to help customers to reduce wastage of water without limiting their use of it. There were a few customers who explicitly disagreed, seeing water use as something that they pay for and therefore a personal choice.

When customers were asked to choose investment plans for water efficiency, views were split evenly between the slower improvement plan and higher investment options, 48% of customers supporting investment beyond the slower improvement plan for water efficiency. Social Renters are most likely to choose the slower plan whereas Safely Affluent customers tend to favour the faster plan.

In our final plan acceptability testing, in the context of comparative information and the proposed bill, 71% of customers agreed with our water efficiency plans and only 6% disagreed.

What we have achieved so far

Metering has been a key component in our strategy to reduce consumption and improve water efficiency.

We have been working to increase metering through the current period and are committed to metering as a means to reduce per capita consumption when also combined with water efficiency advice.

To date, our meter penetration has achieved a level of circa 53%, which we recognise is slightly behind the industry average of 54% (2017/18 data excluding companies in water stressed areas who are able to compulsorily meter), but voluntary take up has been relatively slow. We have much more to do in promoting water efficiency, as the saturation of existing approaches with metered customers means new gains may be harder to make. Our rate of change of occupancy meter installations is also lower than forecast due to a slow-down in the housing market. Consequently we have revised our end of AMP forecast to 64% against our target of 65.9%.

We have consequently launched new initiatives such as the Resource West partnership which will help us take this further as we work in partnership with others to understand how to improve in areas such as water efficiency.

We have also been encouraging meter uptake with our customer focussed initiative 'Beat the Bill' and this also supports our affordability commitments.

Additional progress over the past six months

We are continuing to support customers reduce water wastage through a number of means. These include:

- 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
- Continuing to expand our school education programme
- Working with retailers to help their non-household customers to use water efficiently
- The installation of free water fountains in the centre of Bristol and offering access to our water bar at local festivals and events, to help promote the benefits of using water wisely.

Spotlight on: Meter 66

Metering is a key enabler to achieving a reduction in water demand because it provides the customer with a personalised water bill and places their bill within their control. Metered water supplies also mean that we can engage more effectively with consumers about their water consumption because there is a direct financial benefit to customers who are able to reduce the amount of water they use.

We have set up a dedicated project **'Meter 66'** to provide an increased focus that delivering our challenging metering target by the end of AMP6 in 2020. Crew involved in the project are working towards installing over 46,000 meters. We have increased our metering on change of occupancy and promotion of meters, including providing individual customer information on the benefit to them of metered bills as part of our ***'Beat the Bill'*** campaign; this campaign has helped customers save as much as £100 a year.

Our performance commitments for this promise

Per capita consumption

PC Type: Common, 50% wholesale network plus, 50% residential retail

ODI Type: Underperformance penalty and outperformance reward

PC Driver: Ofwat comparator measure

Description: This is a measure of the average household water usage per day. It provides a direct indication of the effectiveness of our efforts to encourage efficient use of water by our customers.

At 144 l/prop/day, Per Capita Consumption (PCC) is currently at around average levels for the industry (143 l/prop/day). Our performance commitment of 136.4 l/prop/day by 2025 (as a three year average) will take us to near the current upper quartile level of 136 l/prop/day. The upper quartile level reflects compulsory metering programmes within other companies.

Benchmark: Historical performance and industry comparative performance see Figure 68.

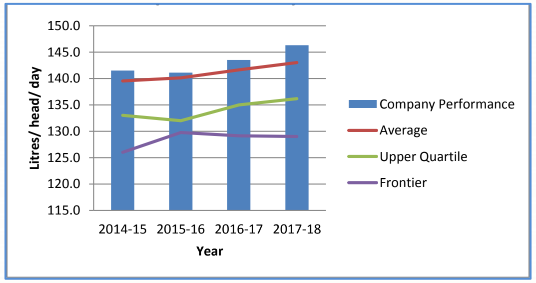


Figure 67: Historical performance for per capita consumption

Changes to this PC

The outperformance deadband has been removed for this PC in response to IAP action BRL.OC.A20. Its removal has been supported by additional customer research. It was originally included to reflect the PR19 methodology based on a forecast of industry upper quartile performance, which we can now remove having seen the IAP and other company plans.

Other Actions (No Changes to this PC)

No changes have been made to this PC in response to the IAP action BRL.OC.A19. This action asked us to consider the comparable ODI rates for this common PC. Our original ODI rate has been retained. Further evidence of our customers' valuations supporting the ODI rate has now been included. The proposed unit rates reflect our customer research and WTP, and therefore we do not propose to reflect the industry ranges. We have included further evidence to re-affirm our innovative approach to triangulation, as well as showing the extreme impact on our RORE balance if we had adopted the comparable incentive rates.

Our target and incentives

Our targets are not set at the upper quartile level because this metric is heavily impacted by metering and we cannot use compulsory metering (because we are not in an area designated as being water-stressed). Customers also wanted a long-term and voluntary approach, with delivery phased as the saving would reduce bills.

The targets that we present are our own current measurement, rather than reflecting leakage shadow reporting which will be used to update these targets for our 5% proposed reduction in usage over 2020 to 2025. Our annual targets are shown below, which for 2020 to 2025 reflect our annual Water Resource Management Plan commitments.

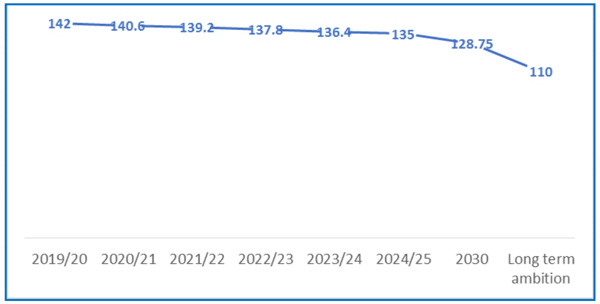


Figure 68: Targets for per capita consumption PC

The proposed penalty and reward ODI does not include an underperformance deadband so that (based on 3-year average performance) a penalty will automatically be due if the target is not met. The outperformance deadband has been removed in response to the IAP, to reflect the IAP methodology as we had anticipated not earning outperformance on below upper quartile performance, but the IAP suggested we should sharpen incentives for further improvements.

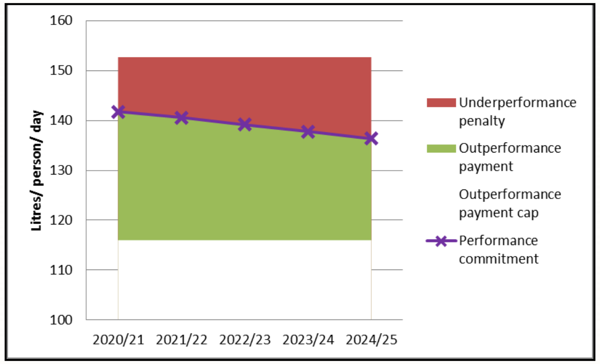


Figure 69: Per capita consumption ODI profile

Outperformance rates have been set based on a customer WTP value for water efficiency that translates to £28k per litre per person per day p.a.

This calculates as an incentive value of £14k per l/p/d and a total potential outperformance reward of £1.61m over 2020-25. Our annual costs amount to £7k p.a. per l/p/d. We use the standard Ofwat methodology calculation to arrive at an underperformance incentive rate of £24k per l/p/d, a total potential penalty of £1.6m over 2020-25.

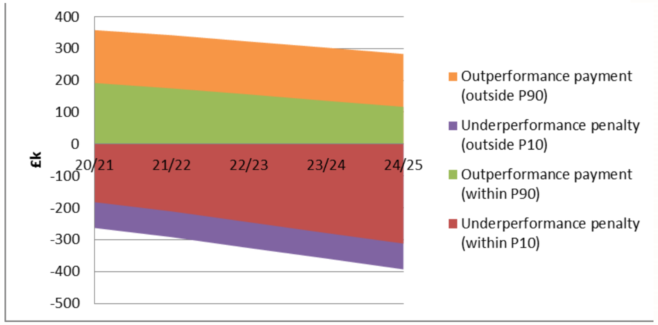


Figure 70: Per capita consumption incentives profile (£k)

Reason why our target is stretching

We believe the target reflects customer preferences; as we have reflected the relatively weak customer support for PCC targets by only applying rewards for an exceptional level of consumption reduction. This still allows innovation that would allow us to outperform our target to be incentivised. With our proposed water efficiency platform to provide choice to end customers, in the long-term incentives for PCC reduction through ODIs would not be required, and therefore this approach should not be interpreted as a lack of water efficiency ambition for 2020-25 or the long-term.

Meter penetration

PC: Continuation of PR14 metric, wholesale network plus

ODI: Underperformance penalty and outperformance reward

PC Driver: Continuation of existing PC supporting promotion of meter options to residential customers and selective metering on change of occupancy.

Description: This is a measure of the number of residential properties that have a metered water supply.

Benchmark: At c53%, our level of metering is currently behind average for the industry at 59% and the upper quartile of 71%. Our plan for 2015-20 sees us targeting delivery of a revised target of 64% by 2020, which will be above industry average. Industry benchmarks include companies with universal compulsory metering in areas designated as being an in water stress.

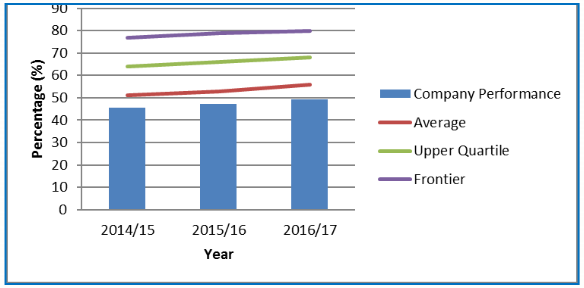


Figure 71: Historical performance for meter penetration

Changes to this PC

No changes have been made to this PC in response to the IAP actions BRL.OC.A37 and BRL.OC.A38.

IAP action BRL.OC.A37 asked us to justify the use of an outperformance payment for this PC. This incentive has been retained; it continues to have customer support, and as the target is stretching, the reward for outperformance is reasonable.

IAP action BRL.OC.A38 asked the company to justify the inclusion of a cap and collar. The cap is based on the maximum feasible metering without compulsory metering powers. The collar relates to the pre-existing level of metering, and is mathematical as meter penetration cannot materially reduce.

Our target and incentives

Our metering programme was targeted to achieve 65.9% by 2020, but a slower housing market means we are likely to only reach 64%. We are taking further promotion activities and expect to catch up with our target by 2021, and then remain on track to reach 75% by 2025, taking the level of metering beyond the current upper quartile for the industry.

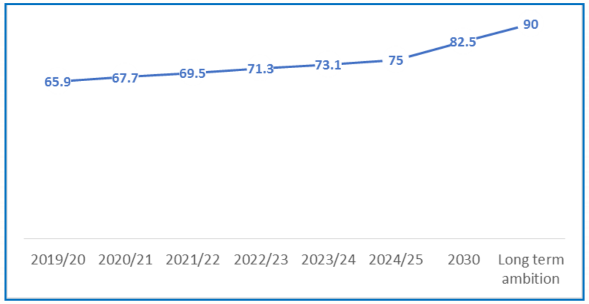


Figure 72: Targets for meter penetration PC

A penalty and reward ODI is proposed, with no deadbands. Given our current performance we have set the standard underperformance penalty collar at 55% so that there is an on-going penalty for not meeting the PR14 performance commitment, to emphasise our commitment to promoting metering and water efficiency, consistent with our Water Resource Management Plan.

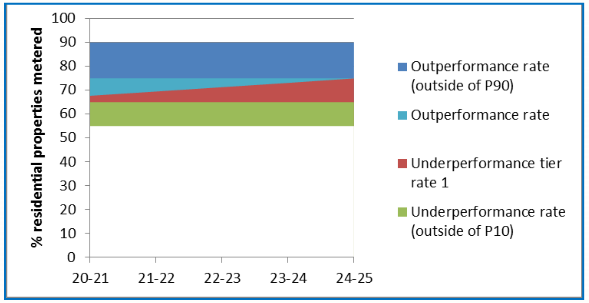


Figure 73: Meter penetration ODI profile

Outperformance rates have been set based on a customer WTP value for metering that translates to £41k p.a. per 1% of residential customers metered. This calculates an incentive value of £20k per 1% of residential properties metered and a total potential outperformance reward of £1.9m over 2020-25. Experience suggests metering above 75% (£0.4m reward if delivered from 2020) is highly unlikely to be delivered in practice. Our annual costs amount to £29k p.a. per 1% of residential customers metered. We use the standard Ofwat methodology calculation to arrive at an underperformance incentive rate of £26k per 1%, a total potential underperformance penalty of £1.8m over 2020-25.

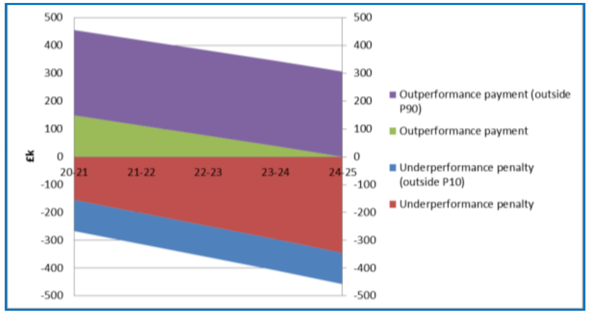


Figure 74: Meter penetration incentives profile (£k)

Reason why our target is stretching

We are targeting a level of metering performance that will become increasingly harder to deliver through optional approaches. This will require us to promote metering, for instance innovating through proactive metering and our "Beat the Bill" campaigns in order to achieve this target. Customers have shown no appetite for compulsory metering for all customers, which we are not in the position to deliver in any case.

Our plans for 2020-25 and beyond

We have a responsibility to ensure we can supply water in the future, no matter how the needs of society change. Our plans aim to ensure that, through collaborative working with our communities and by protecting and enhancing our local environment, we meet the collective challenges which society faces today and in the future. This will help our communities to be more resilient to events such as extreme weather and to longer-term changes such as population increases, increasing trends in water use in younger generations, climate change and to rising levels of deprivation through more choice on water efficiency.

Based on all of our customer research and taking into account the bill reduction beyond the levels which we consulted on in our business plan, we have chosen to base our final plans on targets relating to our 'suggested improvement programme'.

Our plans are to:

- Promote the efficient use of water and continue our metering programme, to reduce the amount of water used by every person by 5% from 142 litres per person per day to 135 litres per person per day. This amounts to over 3 billion litres of water per year. In future communications with customers we will reinforce the message that water efficiency is about reducing wastage (and therefore bills) rather than constraining customers' enjoyment of water.
- Increase the percentage of properties with a meter from 64% to 75% through a continuation of our change of occupancy and 'Beat the Bill' optant programmes, to support our water efficiency programme by providing the price incentive for customers to use water efficiently and to help locate leaks.
- We will look to the market for help to provide customers with more choice on how to track and manage their water usage.
- We will continue to work with our research partners such as the University of the West of England to better understand usage and to gain global research and perspectives which will support our customers.
- We will play a community leadership role though our new Resource West group, working in partnership with key local stakeholders such as local government, universities, other water companies and energy organisations in order to bring together the shared knowledge and capacity of these organisations and deliver greater gains for local communities in issues of water efficiency, waste plastic reduction, energy efficiency and local resilience. Projects for this initiative will be launching shortly and will be fully under way in AMP7.
- Deliver scientific and educational projects on water conservation in addition to the work we are doing to go beyond our WINEP requirements. We have also taken a community leadership role for broader issues of resource efficiency.

These targets and plans are consistent with our draft and final Water Resources Management plans which provide our plans over a 25 year planning horizon. In the longer term we will continue to reduce leakage and have a challenging aspiration to reduce per capita consumption to 110 litres per person per day by 2045. The key elements of the WRMP are summarised at the end of this chapter.

Promise: Reducing leakage

Our customers' views

What matters the most to our customers

Our customers told us that we should focus on reducing how much water is used, before developing new supplies. To achieve this, our priority is to reduce leakage. We currently have one of the lowest levels of leakage of any water company and by 2020 we will have cut leakage by 12% over five years.

Reducing leakage is a top priority, although there are a range of views from customers on whether they are prepared to reduce leakage further, with some customers seeing this as something that the company should pay for.

Customer feedback on our draft business plan

Most customers continued to support leakage reduction as a key area for investment, although a minority of customers felt that the company should pay for this rather than customers.

When customers were asked to choose investment plans for leakage reduction, views were split evenly between the slower improvement plan and higher investment options, with 56% of customers supporting investment beyond the slower improvement plan.

Social Renters are most likely to choose the slower plan whereas Safely Affluent customers tend to favour the faster plan.

In our final plan acceptability testing, in the context of comparative information and the proposed bill, 83% of customers agreed with our leakage plans and only 2% disagreed.

What we have achieved so far

We are committed to cutting leakage by 12% over 2015-20.

Historically, we have deployed several traditional options for managing leakage:

- Active Leakage Control
- Pressure management
- Asset renewal

We have been changing our approach to driving down leakage and have been trialling a series of technologies that are helping to develop a smarter network, where our targeting of leaks is informed by data captured and analysed by sensors and analytical software.

We have been trialling tools such as Syrinix Pipeminder for monitoring leaks on trunk mains and also been involved in trials of new technology working with academics and suppliers.

We have used our 'Field Lab' environment to trial pressure management based on hydraulically calming the network.

Our evolving approach is based on having a better understanding of hydrodynamic conditions of our network, based on new monitors that can detect transients and noise and dynamic hydraulic control. Through these techniques we have found that it is possible to better detect, pin-point and manage leakage.

Additional progress over the past six months

Normally leakage during the summer is low but the level experienced during last year's hot and dry summer was actually higher than the level we would normally expect to see in a harsh winter. Nonetheless, we are on track to hit our leakage target which sets the trajectory of improvement required to hit our hit our 2020-25 targets. We expect to outperform our actual and ODI leakage targets in 2019/20, which will reduce our ODI penalty from our original plan forecast. Our actual leakage is expected to be on target in 2018/19 and 3Ml/d (7%) below target at 40Ml/d in 2019/20. Both these levels of performance could be at the industry frontier (per km main).

Ove the past six months we have focussed on the effectiveness of our leakage detection resources. We have introduced a dedicated Leakage Operations Manager and have increased our leakage detection resources by recruiting additional inspectors. An additional 14 FTE leakage inspectors are currently being trained (this is around a 50% increase in the number of our leakage inspectors) and will be ready to start contributing to leakage reduction in the forth-coming year. Per person we are also detecting more leaks. We have reduced the amount of time it takes us to move from awareness of a leakage issue, through to locating and then repairing the leak. We are training our staff to better prioritise repair jobs when a seemingly minor leak is reported – recognising the volume of leakage visible above ground is not always representative of the total volume of the leak.

Spotlight on: predictive models for reducing leakage

We have developed burst and leak prediction models that help us to assess the implications of deterioration, asset health and asset life as well as models that identify performance hot-spots, enabling cost-effective targeting of investment on monitoring and renewals.

These models enable the impacts of severe weather to be predicted and can be used to inform operational response in a 'cold-snap' as well as explore long-term trends in performance and climate resilience.

We are using these models to make sure that we maintain our assets in a way that is both efficient and supportive of long term resilience.

Our performance commitments for reducing leakage

Leakage

PC Type: Common, water network plus control

ODI Type: Underperformance penalty and outperformance reward

PC Driver: Customer willingness to pay and Water Resource Management Plan requirements, as well as regulatory and Government expectations.

Description: Leakage is the quantity of unaccounted for water lost from our system, measured in litres per property per day.

Benchmark: Our current level of leakage is one of the lowest in the industry and better than the industry upper quartile of 88 l/prop/day. By 2025 leakage will be at 66 l/prop/day, well beyond the current industry frontier of 80 l/prop/day. Industry comparative date is shown.

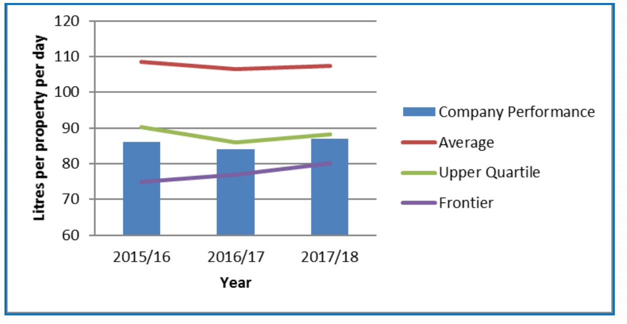


Figure 75: Historical leakage performance

Changes to this PC

No changes have been made to this PC in response to the IAP actions BRL.OC.A17 and BRL.OC.A18.

IAP action BRL.OC.A17 asked us to consider the comparable ODI rates for this common PC. Our original ODI rate has been retained. Further evidence of our customers' valuations supporting the ODI rate has now been included. The proposed unit rates reflect our customer research and WTP, and therefore we do not propose to reflect the industry ranges. We have included further evidence to re-affirm our innovative approach to triangulation, as well as showing the extreme impact on our RORE balance if we had adopted the comparable incentive rates.

IAP action BRL.OC.A18 asked us to justify the inclusion of a cap and collar for this PC. The caps and collars are supported through specific customer research. We set out the evidence in our revised **C3 document** the technical reasons and customer support. The cap on outperformance is based on the lowest achievable rate, in line with the methodology. The collar on underperformance is based on the worst historical level of leakage in the last 10 years.

Our target and incentives

The targets that we present are our own current measurement, rather than reflecting leakage shadow reporting which will be used to update these targets for our 15% proposed reduction from 2020-25. Our annual targets are shown below, which are Water Resource Management Plan commitments.

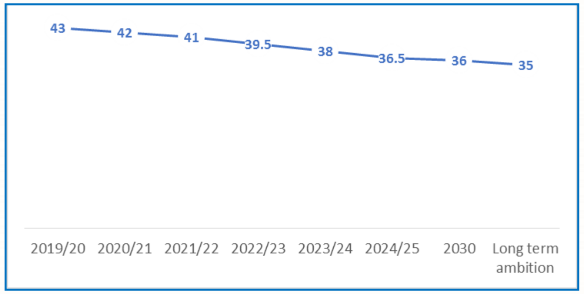


Figure 76: Leakage (Ml/d)

We will be using a three-year average approach for incentives calculation (to be updated to the industry standard "shadow" measure once sufficient track record of data is established by 2020), and have not proposed a deadband to ensure that we will be penalised if we do not improve upon our 2019-20 actual level of leakage.

We show below that it is unlikely that we would be able to achieve beyond our leakage target or would allow leakage to deteriorate below its 2020 starting point, although we have penalties set up to our worst historical performance. As we set out in Bristol Water…Clearly, we expect the long term leakage target to be reset in light of future innovations for the long term (by 2035). Our leakage ODI is illustrated below.

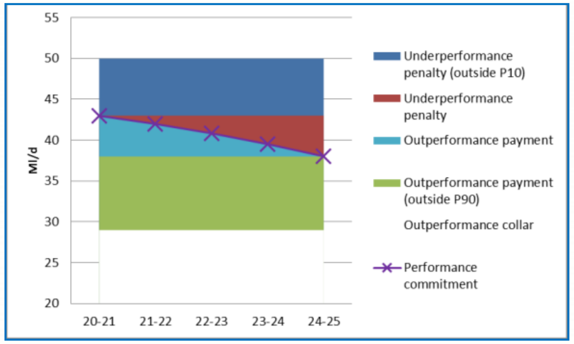


Figure 77: Leakage (3-year average) ODI profile

Outperformance rates have been set based on a customer WTP value for leakage that translates to £322k p.a. per 1Ml/d. This calculates an incentive value of £161k per Ml/d and a total potential outperformance reward of £9.4m over 2020-25. Our annual costs amount to £305k p.a. per Ml/d. We use the standard Ofwat methodology calculation to arrive at an underperformance incentive rate of £169k per Ml/d, a total potential underperformance penalty of £7.9m over 2020-25.

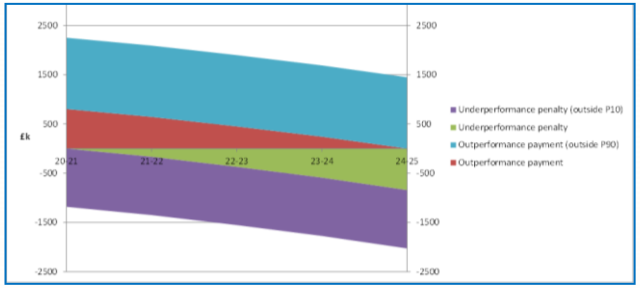


Figure 78: Leakage (3-year average) incentives profile (£k)

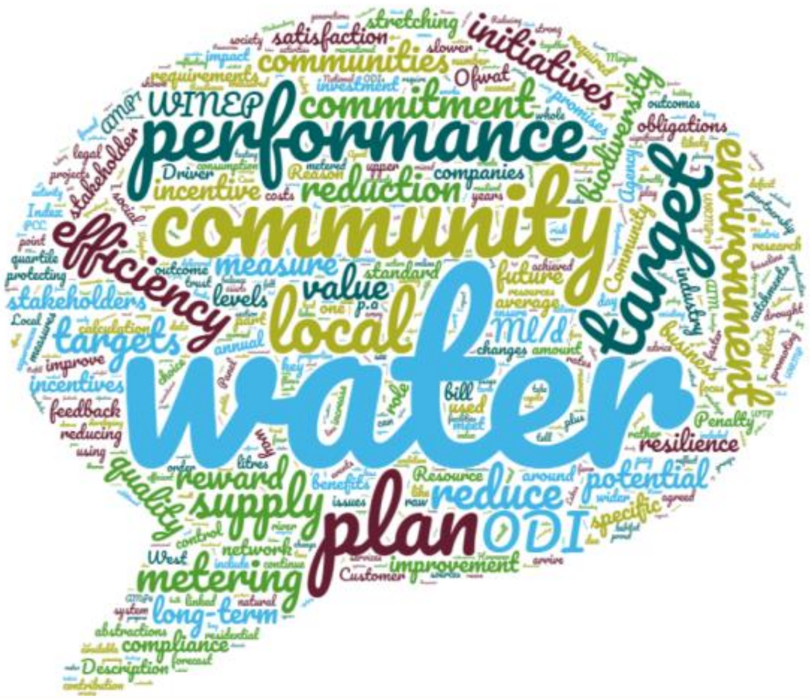
Reason why our target is stretching

Our leakage target achieves a 15% reduction between 2020 and 2025. Our target has been set through our Water Resource Management Plan and is the level required to balance supply and demand over this period, with a surplus available overall. It is a level which is supported by customer willingness to pay.

Our plans for 2020-25 and beyond

Our plans are to:

- Reduce leakage by a further 15% from 43 million litres per day to 36.5 million litres per day. This will save the abstraction, treatment and distribution of 2 billion litres of water per year and take levels below the sustainable economic level of leakage. We have an accurate leakage delivery model used to target our current performance and this has been used to set our future targets – the model takes into account weather risk as part of the analysis.
- We will reduce leakage by deploying more network loggers which allow us to achieve cheaper and more effective active leakage control through better data and understanding.
- We will replace around 100km of our network, fix leaks faster and find and fix more of the smaller leaks which are not visible above ground. We will increase our monitoring of the network to help us to find leaks earlier, as well as reducing pressure in locations where this will not have an adverse impact on our customers.



8.9 Our Water Resources Management Plan

Our draft Water Resources Management Plan 2019 (WRMP19) sets out our plan for providing a resilient supply of water to our customers over the 25-year planning period 2020-45, even in a severe drought. Customer preference underpinned every phase of the development of the draft plan, with over 12,000 customer surveys carried out ranging from simple annual surveys to detailed whole-day customer workshops. The plan was also informed by dialogue with our regulators and collaborative discussions with other water companies through new and existing partnerships such as the West Country Water Resources Group and the River Severn Working Group.

The draft WRMP19 highlighted that:

- Bristol Water faces a minor supply deficit in drought conditions in 2023 (the middle of AMP7), largely driven by a growing population in our supply area.
- The supply deficit at the end of AMP7 is 1.9Ml/d, rising to 12.8 Ml/d by 2045.

The draft WRMP explained our preferred approach to addressing this forecast supply deficit:

- Reduce leakage during AMP7 to a level of 37Ml/d, driven by our customers' preferences.
- Invest in reducing raw water losses from our raw water mains.
- Reducing our treated water bulk supply transfer to Wessex Water.
- No new water sources were identified as being necessary over the next 25 years.

Consultation Responses

Following the launch of our WRMP consultation we received nine responses, from the Environment Agency, Ofwat, the Bristol Water Challenge Panel, Historic England, Wessex Water, the Canal & River Trust, National Farmers Union, Waterwise and Somerset Wildlife Trust.

The **Environment Agency** as the key statutory consultee provided the most extensive feedback on the draft WRMP19. It found no issues with the accuracy of our regulatory data tables (one of only two companies to which this applied) and was broadly supportive of the plan:

"We welcome a draft water resources management plan from Bristol Water that has positively responded to our challenge to improve the way it assesses its supplies and demonstrate an understanding of the way its system operates".

However, the Environment Agency suggested the proposed reduction in leakage was not sufficiently ambitious. They wanted to see further progress on leakage along with actions to reduce customer per capita consumption.

Ofwat welcomed the strong focus on customer engagement in developing the plan and the ongoing involvement of the Bristol Water Challenge Panel. Their main comments focused on:

- Further clarity on how the bill impact discussion has been presented to customers.
- Updating the drought resilience assessment in line with the new national methodology.
- Concern that the proposed leakage reduction target was not sufficiently ambitious.
- Alignment between Bristol Water and Wessex Water on bulk export volumes.

The Bristol Water Challenge Panel commented that the draft WRMP was a readable and easily digestible document and congratulated Bristol Water on its level of communication with its customers and others. The Panel suggested the plan should contain:

- More information on the range of behavioural changes required by customers in order to achieve the scale of water use reduction necessary to maintain water supply resilience.
- More information on how we plan to address non-drought water supply resilience risks, such as reservoir failures or major outages in the water supply system.

Customer feedback

A total of 265 customers provided consultation responses to our draft WRMP19 via our online engagement channels:

- 92% of respondents said that they understood the draft plan.
- 73% of respondents felt that the plan strikes the right balance of risk for the short and long-term with only 6% feeling that it does not (the remainder were unsure).

- 85% of respondents agreed with the solutions set out in the plan and only 5% did not agree.

Our Statement of Response responded to all of the feedback which we received.

We have now submitted our 'revised draft plan' to Defra. The principal changes are:

- Leakage reduction by 2025 reduced from 37 Ml/d in the draft plan to 36.5 Ml/d in the final plan (15% reduction) and further reduced in the longer term from 36.5 Ml/d to 35 Ml/d by 2045 in our final plan. These targets reflect customer preference and also meet the leakage challenge to water companies from Ofwat and the National Infrastructure Commission.
- Household meter penetration to be increased to 73% by 2025 (mid-year, 75% by end of year) and further increased to 87% by 2045.
- A more ambitious water efficiency strategy in our draft final plan in line with the company's ambition to reduce per capita consumption (PCC) to an average of 110 litres/head/day by 2045. Our WRMP central forecast is currently based on 129 litres/head/day by 2045 based on what could be achieved given current policy and technology. Our adaptive pathway planning technique will enable us to adapt our plans as circumstances change. Achieving a target of 110 litres/head/day by 2045 will require collaborative working with other water companies and local authorities as well as action by government over the coming years to influence national policy as well as customer behaviour.
- A 10 Ml/d reduction to the deployable output (reliable supply) of our water sources in a 1 in 200 year drought event following a reassessment against the new national drought resilience assessment methodology.
- An 8.8 Ml/d reduction to our baseline raw water losses value following a re-assessment that took into account the benefit of recent maintenance activities.

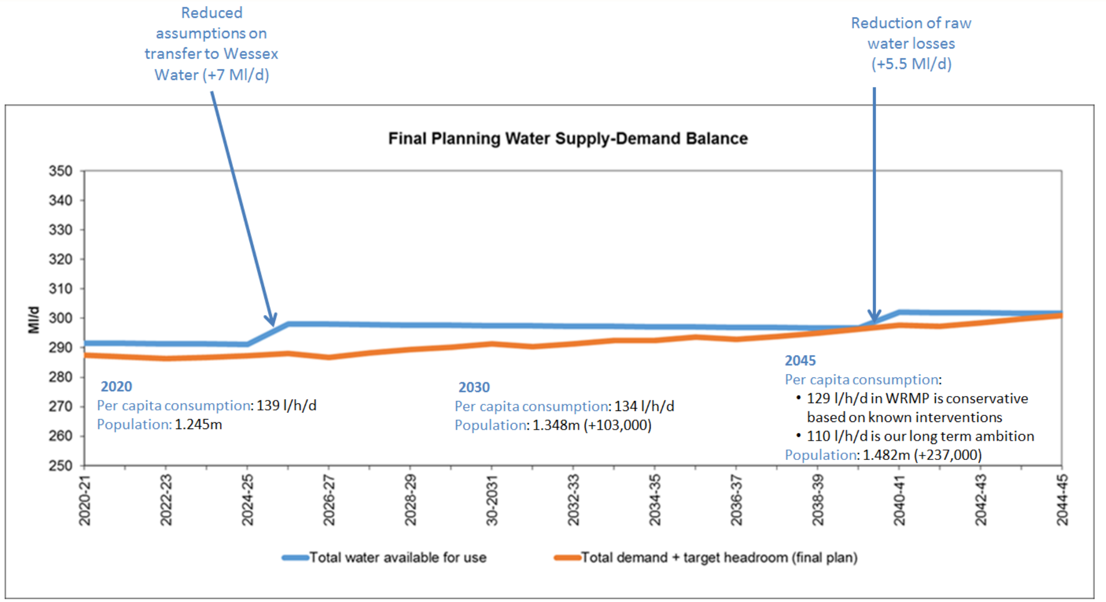
With these changes applied to our supply-demand balance calculation, and subject to final data checks and audit, we now forecast a small residual supply deficit in drought conditions of 0.2 Ml/d at 2030 and rising to 12.3 Ml/d at 2045.

We propose to address this forecast residual supply deficit by applying the same measures as we set out in our draft WRMP19:

- Reduce our c11 Ml/d bulk supply export to Wessex Water by c7 Ml/d so that we can maintain a resilient supply to our own customers, without detriment to their customers.
- Invest in a programme to reduce raw water losses, to increase the volume of water reliably available for supply to our customers.

- Our revised draft plan is fully consistent with our PR19 Business Plan submission and the revised plan has gone through an extensive process of internal and external assurance. The revised plan was submitted to Defra in September 2018 and following technical feedback we have made some minor amendments including providing more information on the cost benefit of metering, in order to finalise our WRMP19.

Figure 80: Final WRMP supply demand balance



8.10 Our outcome delivery incentives for this outcome

The maximum total underperformance penalty for this outcome is £14.0m over 2020-25, which would equate up to a c£4 reduction per household customer per annum.

The maximum total outperformance reward for this outcome is £14.5m, which would equate up to a c£4 increase on the average household bill per annum.

The largest incentive is for the leakage performance commitment. Together with per capita consumption these are two common industry measures.

We also show the level of performance expected to occur 80% of the time, reflecting the central view of incentives which could reward innovation or penalise poor performance.

Performance Commitment	Incentive type	2020-25 maximum under performance penalty £m	Annual bill impact £	2020-25 maximum out performance penalty £m	Annual bill impact £
Biodiversity Index	Penalty and Reward	-0.134	<50p	0.360	<50p
Raw Water Quality of Sources	Penalty and Reward	-0.341	<50p	0.241	<50p
Waste disposal compliance	Penalty only	-0.086	<50p		
WINEP compliance	Penalty only	-1.019	<50p		
Abstraction Incentive Mechanism	Penalty and Reward	-0.112	<50p	0.112	<50p
Local community satisfaction	Penalty and Reward	-1.056	<50p	0.831	<50p
Per Capita Consumption (PCC)	Penalty and Reward	-1.633	£0.50	1.633	£0.50
Meter penetration	Penalty and Reward	-1.806	£0.50	1.909	£0.50
Leakage	Penalty and Reward	-7.890	£2.50	9.377	£2.50
Total		**-14.077**	**£4.00**	**14.438**	**£4.00**

Figure 81: Outcome delivery incentives summary

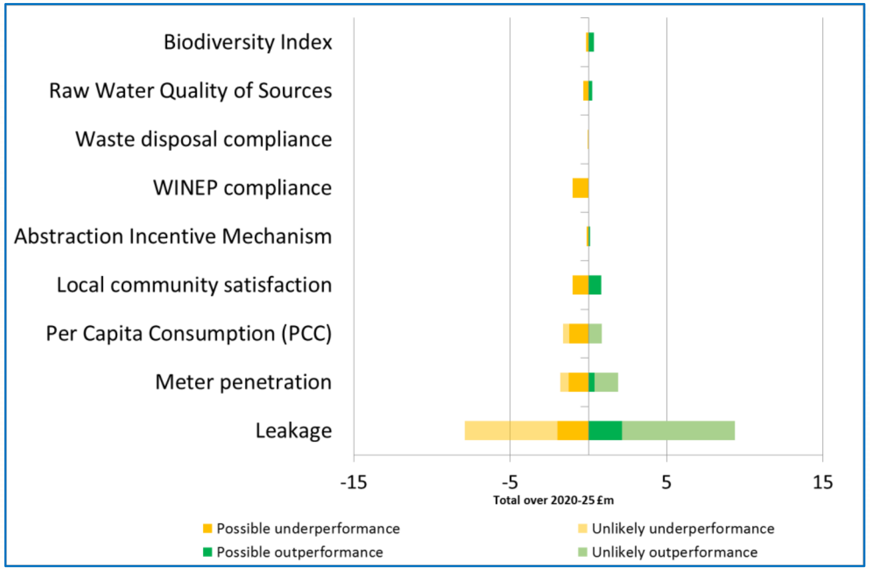


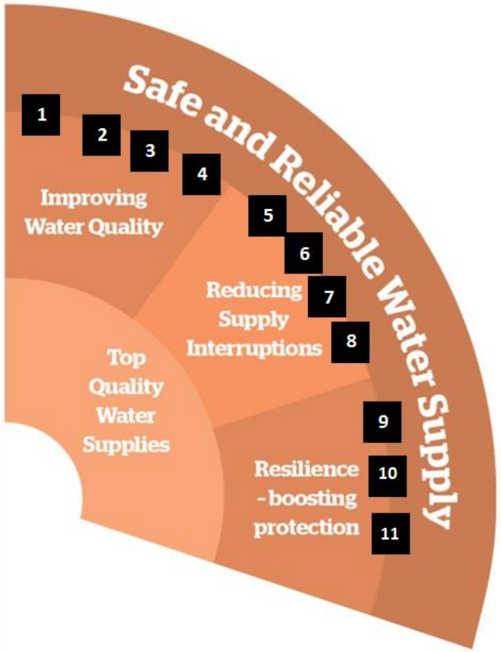
Figure 82: Outcome incentives over 2020-25 in 2017/18 CPIH prices (£m)

9 Outcome 3: Safe and Reliable Supply of Water

We will provide a safe and reliable supply of water now and in the future. Our customers are confident in the quality of our water, and are confident that they will always get a constant supply of top quality water that meets all legal standards.

9.1 Introduction

Reliable delivery of safe, high quality drinking water is a must - our customers expect this as a minimum. Our work to deliver top quality water starts in the catchments where the water is sourced, continues at our water treatment plants and through our pipes. In this chapter of our plan we explain how we will achieve the outcome of ***Safe and Reliable Supply of Water*** by delivering on a series of promises that stem from our customers' priority of ***'keeping top quality water flowing to your tap'***. We present a summary of customer views, our performance commitments and outcome delivery incentives for three groups of performance commitments.



Performance Commitments

Improving Water Quality		
1	Compliance risk index	£
2	Discolouration contacts	£ £
3	Taste/odour contacts	£ £
4	Turbidity at water treatment works	£
Reducing Supply Interruptions		
5	Supply interruptions	£ £
6	Mains burst	£
7	Risk of low pressure	£ £
8	Unplanned non-infrastructure maintenance	£
Resilience – boosting protection		
9	Population at risk from asset failure	£ £
10	Drought risk	
11	Unplanned outage	£

Reputational ODI £ Under-performance penalty ODI
£ £ Under-performance penalty and over-performance payment ODI

9.2 Key messages

- Safe and reliable water is a fundamental expectation for our customers
- Our water quality performance is currently industry leading and we aim to keep our water quality at this level
- Asset health and resilience are important factors influencing this outcome

9.3 Background

To achieve an outcome of ***Safe and Reliable Supply of Water***, we will implement initiatives to deliver on three promises:

- **Improving water quality**
- **Reducing supply interruptions**
- **Resilience – boosting protection**

These promises reflect both what our customers have told us, and the need to meet regulatory expectations. They balance stretching performance with bill affordability and value.

To hold us to account, each of our promises is linked to one or more performance commitments.

A total of four performance commitments will be used to track our progress towards ***Safe and Reliable Supply of Water***. Each is also linked to an outcome delivery incentive (ODI) to help ensure that we deliver for our customers, and, where appropriate incentivised to outperform through innovation. ODIs can be reputational or financial (underperformance penalties if we fail to deliver and, where appropriate, outperformance payments for going beyond our stretching commitments).

For *this outcome*, we have ten performance commitments with financial ODIs and one performance commitment with a reputational ODI.

9.4 Changes in response to the IAP

As part of our response we have made changes to:

- The targets for supply interruptions, drought restrictions and unplanned outage PCs
- The cap for the population at risk of asset failure PC
- The collar for the compliance risk index and turbidity at treatment works PCs
- The deadbands for five PCs
    - By removing these from water quality contacts (appearance and taste/ odour), low pressure and unplanned maintenance
    - By revising the deadband level for compliance risk index
- The ODI rates for seven PCs

Our environmental regulators have confirmed that they continue to support our proposals, and specifically the support for the non-WINEP catchment programme.

9.5 Promise: improving water quality

Our customers' views

What matters the most to our customers

In addition to our statutory obligations and long-term challenges, we know that providing safe, good quality water at all times is our customers' main priority for us as a water company. Triangulated values from our valuation research tell us that customers are willing to pay to improve the clarity and taste of their water. Even when we talk to our most engaged customers, who know more about the regulatory standards for water quality, they still see it is a top priority for improvement relative to other commitments. Maintaining a quality water supply is also a priority for our future customers in our Youth Board.

'Poor water quality' is one of the top three reasons for customers to express dissatisfaction in the annual survey since 2015 and it makes up around 8% of non-billing calls from customers, the fourth most common operational reason customers contact us. When discussing water quality with customers, they value it as a performance commitment because it is important for them to know that their water is being kept clean, they find it reassuring regarding any potential health risks, and think such a commitment improves trust between the company and its customers.

The appearance of water is valued highly by our customers. It is a consistent high priority across all research and engagement. 1.5% of all complaints we receive are related to the appearance of customers' water. Customers are often unaware of the reasons that water is not clear and associate it with either health concerns or poor taste. For some of our more engaged customers, like our Customer Forum, the appearance of water is a lower priority because they see it as a 'nuisance' but essentially harmless. Our future customers also gave less of a priority to discoloured water than to overall water quality.

Customers prioritise taste and smell in a similar way to the appearance of their water. In fact, sometimes these three attributes are conflated, or considered in different combinations in discussions with customers. As such, the taste and smell of water is a consistent high priority across all research and engagement. 4% of complaints we receive are regarding the taste of customers' water, and 3% are about its odour.

Customer feedback on our draft business plan

To guide the process of talking to our customers about our Business Plan, we presented three possible plans. These alternatives described ***slower***, ***suggested*** and ***faster*** paths to the same long-term ambition.

There is general support for water quality as the highest priority for the company, but some question why Bristol Water should be aiming to improve already high standards. Views were mixed, with 54% of customers choosing the slower improvement plan for the Compliance Risk Index, whereas more customers preferred investment levels beyond the slower improvement plan for discoloured water and water that doesn't taste or smell right, at 54% and 72% respectively.

With respect to performance relating to customer contacts on water appearance, the majority of our customers did not support the *'faster plan'* proposal, which is the forecast upper quartile level of performance. However, future customers and lower socio-economic groups were found to be more likely to prioritise water quality as a key concern, preferring levels of investment beyond the slowest plan.

A safe and reliable supply has always been the top priority for customers throughout all our research and engagement. The conclusion on safe and reliable supply outcome measures was to ***continue with the suggested plan***, if phasing of improvement means that it can be delivered at a time when bills are reducing overall.

In our final plan acceptability testing, in the context of comparative information and the proposed bill, 87% of customers agreed with our drinking water quality (compliance) proposals and only 4% disagreed. 72% supported the 54% reduction in discoloured water and only 3% disagreed. 68% supported our proposals to improve the taste of tap water and only 6% disagreed. The opportunity for customers to be neutral or "don't know" in these surveys reflected the difference, which is strong support for the plan given the low experience of problems with our water quality.

In the final acceptability telephone survey where customers did not have comparative information available, 72% agreed with our plan for safe and reliable supplies and only 2% disagreed. A total of 91% of the most informed customers in focus groups agreed with our plans and no-one in these groups disagreed.

What we have achieved so far

Our Water Quality team collects samples 365 days a year from across our 2,400 square kilometre supply area. The sampling schedule is aligned to a sophisticated computer-controlled programme so that water quality is checked right from source to customers' taps.

We currently provide high quality water and our customers experience few issues with their water supply. We know however, that receiving safe, high quality water at all times remains a top priority for customers. The taste and appearance of tap water is something which customers value highly.

We have been working with our farming communities, through the process of catchment management to help control the quality of our water sources and improving the understanding and control of our water supply and distribution systems to manage issues of discolouration.

We have been trialling the use of sensors and controls that enable us to understand network hydrodynamics better and manage them more effectively.

Our Drinking Water Safety Plan (DWSP) team are continuing to develop our risk assessment and risk management approach to ensure the Company meets its requirements to ensure the wholesomeness and acceptability of drinking water supplies. The outcome of this work will see the Company apply for accreditation for its DWSP methodology in accordance with Water Industry Specification 4-01-04 towards the end of 2019. We expect to be one of the first water companies to achieve this.

Furthermore, we are one of the forerunners in the Water Industry for obtaining UKAS accreditation against ISO17025 for online monitoring. This has involved recruiting an AQC analyst to assist with the setting up of the relevant processes and procedures. Obtaining the accreditation will give greater confidence in the data we receive from critical online monitoring points at our treatment works. This will help the company respond to a potential risk at treatment works before these can impact on customer supplies.

Finally, there has been significant progress with the replacement of lead communication pipes to schools with the remainder scheduled for replacement by April 2019. In addition to, this our information programme has resulted in a high number of customers requesting a check of lead levels in their water. This is providing them with relevant information to enable them to make an informed decision about lead pipe replacement.

Additional progress over the past six months

Case Study: Combining works upgrades with catchment management

In December 2018, we completed a scheme to control the pH (scale of acidity) of the final treated water leaving Stowey Treatment Works. The frequency and intensity of algae blooms in Chew Valley Lake can cause seasonal changes in the pH and alkalinity of the water resulting in the treated water having a negative Langelier Index (increased corrosively of the water).

In conjunction with our catchment management activities in the Mendips, completion of this scheme means that we can supply chemically balanced water throughout the year. This will reduce the risk of corrosion in the network and the likelihood of customers receiving discoloured water.

Spotlight on: Our Mendip Lakes Partnership

The Mendip Lakes are key sources of water. The quality of drinking water relies on the quality of the water environment.

Following increasing frequencies of algal blooms in the Mendip reservoirs causing problems at our treatment works, we started the Mendip Lakes Partnership project – bringing together the Environment Agency, Catchment Sensitive Farming and Natural England to coordinate advice and stewardship across the catchments.

As part of this project we:

- Used satellite imagery to understand land use and nutrient loss from the catchment.
- Formed a Farmer Focus Group to inform the project direction.
- Provided advice and support to farmers on nutrient and soil management and analysis, farm yard infrastructure audits, water management advice and Countryside Stewardship application advice.
- Provided farmers with the Bristol Water Catchment Grant Scheme, this has helped farms reduce their pollution risk, for example by fencing off watercourses and sowing cover crops over winter to reduce nutrient leaching.
- Ran regular farm workshops with specialist speakers.

Our performance commitments for this promise

Compliance risk index

PC Type: Common, wholesale network plus control

ODI type: Underperformance penalty only

PC Driver: Target of zero reflects this is legal water quality compliance

Description: This is a measure designed to illustrate the risk arising from treated water compliance failures, and it aligns with the current risk-based approach to regulation of water supplies used by the Drinking Water Inspectorate (DWI).

All compliance failures are assessed by DWI using the provisions of the Water Industry Act 1991. In doing so, the DWI has regard to its published Enforcement Policy, and it also follows the principles of "better regulation" to scrutinise company performance on the basis of risk of failing to meet the requirements of the Regulations.

Benchmark*:* Bristol Water has historically been performing above the industry upper quartile and for 2017-18 we are at the frontier level of performance.

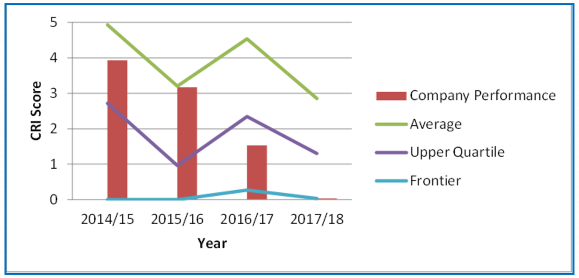


Figure 83: Historical performance for Compliance Risk Index

Changes to this PC

The following changes have been made to this PC:

- The deadband has been changed from 1.27 to 1.50 in response to Ofwat's advice to all companies following publication of the IAP
- The collar has been changed from 4.39 to 9.50 in response to the IAP action BRL.OC.A8
- The ODI unit rate has been revised (this now reflects a level just below the lower bound comparable rate in response to the IAP action BRL.OC.A7. This is based on a revised marginal cost, reflecting improved 2018 performance as well as customer willingness to pay

Our target and incentives

We are forecasting to achieve a frontier level of performance (around the zero level of CRI performance) throughout 2020 to 2025 and beyond.

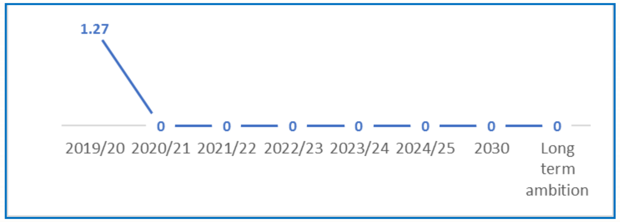


Figure 84: Targets for Compliance Risk Index

Ofwat has mandated that we include a ***penalty-only ODI*** for this measure and that the target be set to zero. The ODI is shown below, with a deadband reflecting that our 2019-20 target is at the industry upper quartile for what is a relatively new performance measure.

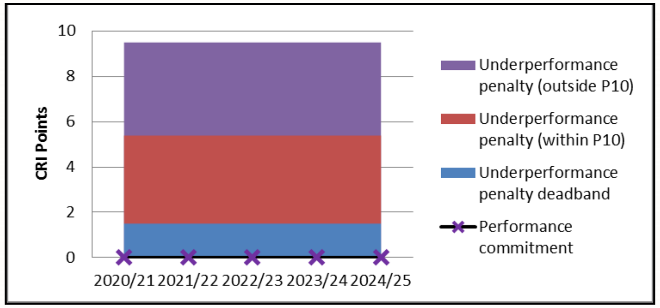


Figure 85: Compliance Risk Index ODI Profile

We have proposed a penalty deadband for this metric, which we have re-set from a CRI score of 1.27 to 1.50. This has been calculated as the mid-point between the upper quartile of 2017/18 performance (0.5) and the upper quartile of the forecast deadband values from all companies (2.5) in the industry. The new penalty collar ensures that the range of underperformance provides clear incentives for the company to deliver our statutory requirements. The ODI is illustrated below, see Figure 86.

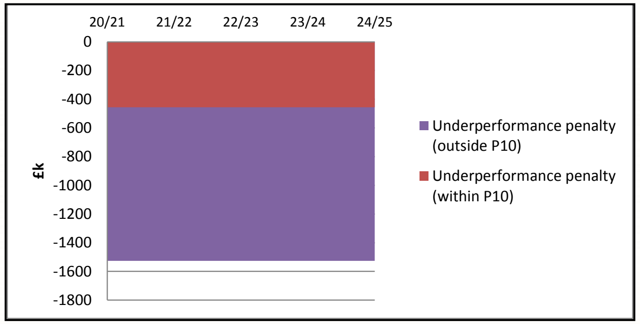


Figure 86: Compliance Risk Index incentives profile (£k)

Underperformance rates have considered both a willingness to pay based on the probability of a boil water notice, which amounts to £286k. Our annual costs were estimated from our investment plan at £399k. We use the standard Ofwat methodology calculation to arrive at an underperformance incentive rate of £191k per CRI index point p.a., a total potential underperformance penalty of £7.6m over 2020-25.

Reason why our target is stretching

Our target is stretching because full legal compliance reflects an index score of zero, which we nearly achieved in 2017-18 (0.032).

Customer contacts about water quality – appearance

PC Type: Mandatory area, wholesale network plus control

ODI Type: Underperformance penalty and outperformance reward

PC Driver: Regulatory expectations on drinking water and industry upper quartile performance levels

Description: This measures the number of times we are contacted by customers about the appearance of their tap water (per 1,000 customers supplied) in the calendar year. This is a revision of our PR14 performance commitment, Negative Water Quality Contacts.

The two main causes for water not being clear are i) the disturbance of harmless deposits making the water brown, black or orange which may occur if there is a disturbance of the mains system, caused by a burst main or a leak; and ii) air or chalk making the water appear white.

Benchmark: Bristol Water has historically performed worse than the average across the industry for this measure (12.9 contacts per 1,000 customers).This is shown in Figure 87.

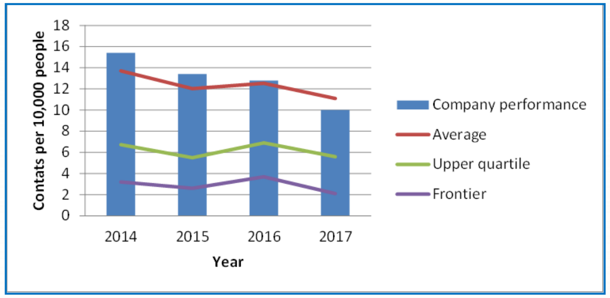


Figure 87: Historical performance for contacts on appearance

Changes to this PC

A single standard outperformance incentive rate has now been applied for this PC in response to IAP action BRL.OC.A21.

The outperformance deadband has been removed for this PC in response to IAP action BRL.OC.A3.

Our target and incentives

Our target of 0.43 contacts per 1,000 customers is a significant challenge, but may not take our performance to outturn upper quartile for the industry. The cost to meet this level of performance outweighs the benefits.

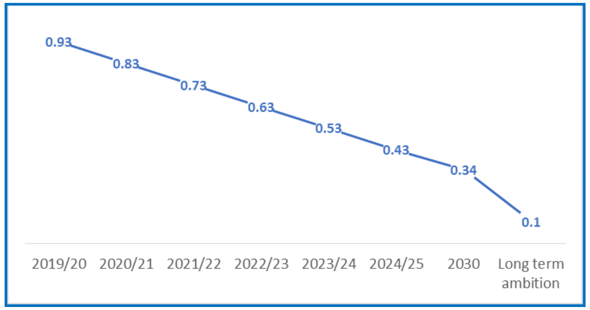


Figure 88: Targets for appearance contacts PC

There is a proposed ***penalty and reward ODI*** for this measure. This is shown below.

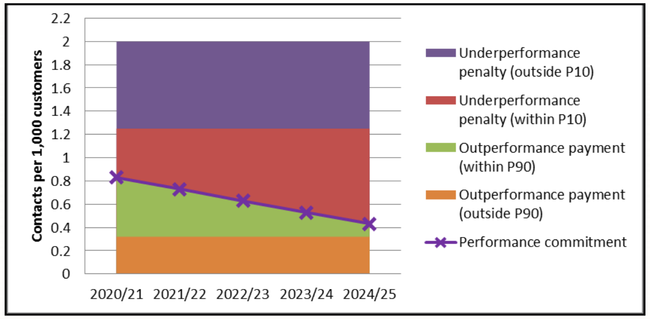


Figure 89: Appearance contacts ODI profile

No underperformance penalty deadband has been proposed; if we miss our proposed targets we would incur underperformance penalties up to our worst historical performance. We have decided this is appropriate due to the large degree of influence we have. No outperformance deadband applies.

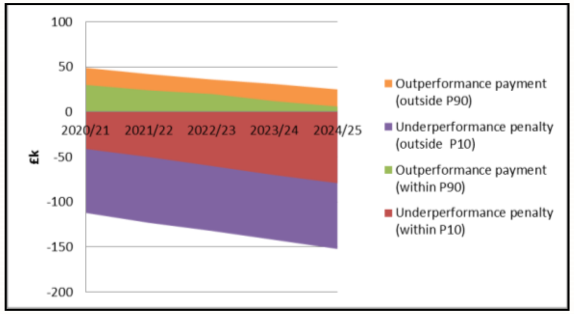


Figure 90: Appearance contacts incentives profile (£k)

Our outperformance rate is calculated using a WTP of £116k. This reflects our customer priorities to improve this area as new innovations arise. The total potential outperformance reward is £0.18m over 2020-25. Our annual costs amount to £38k p.a. per contact per 1,000 people. We use the standard Ofwat methodology calculation to arrive at an underperformance incentive rate of £97k per contact per 1,000 people, a total potential underperformance penalty of £0.66m over 2020-25.

Reason why our target is stretching

We have proposed an outperformance deadband to ensure that we are only eligible to earn rewards if and when we drive contacts below our 2025 target level of performance, in recognition that we are forecast to be below the upper quartile level of performance across the industry. The first standard outperformance tier has been set at the current frontier level.

Customer contacts about water quality – taste and odour

PC Type: Mandatory area, wholesale network plus control

ODI Type: Underperformance penalty and outperformance reward

PC Driver: Regulatory expectations on drinking water and industry upper quartile performance levels

Description: This measures the number of times we are contacted by our customers about their water's taste or odour (per 1,000 people supplied) in the calendar year. This is a revision of our AMP6 performance commitment, Negative Water Quality Contacts.

The main causes for water tasting or smelling different are:

- The use of chlorine to maintain good hygiene in the pipe network
- Seasonal water quality effects creating a musty smell or earthy taste
- A change in where water is sourced from or how it is treated
- A customer's plumbing, which for various reasons can cause a range of tastes including metallic, salt, rubbery or earthy tastes.

Benchmark: Our company performance is poorer than the industry average, which in part reflects our resilience, as customers notice marginal changes to water quality when sources of water change:

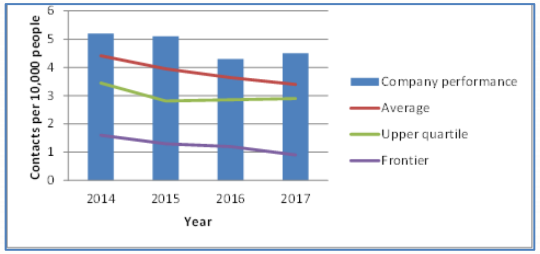


Figure 91: Historical performance for taste and odour contacts

Changes to this PC

A single standard outperformance incentive rate has now been applied for this PC in response to IAP action BRL.OC.A22.

The underperformance deadband has been removed for this PC in response to IAP action BRL.OC.A23.

The outperformance deadband has been removed for this PC in response to IAP action BRL.OC.A3.

Our target and incentives

Our plans will take us to 0.25 contacts per 1,000 customers, so beyond the current industry upper quartile (0.3 contacts per 1,000 customers).

We have proposed a penalty and reward performance commitment. This is shown below.

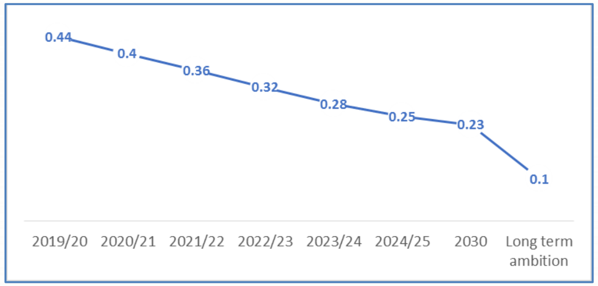


Figure 92: Targets for taste and odour contacts ODI profile

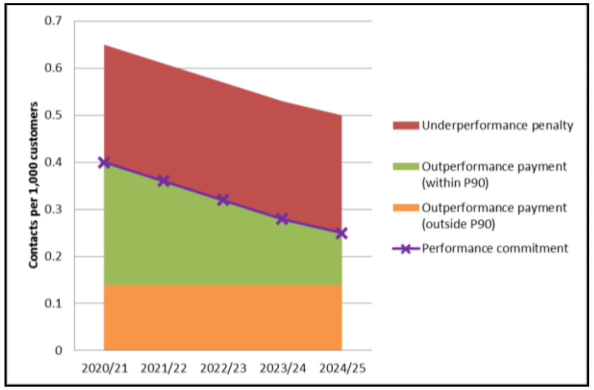


Figure 93: Taste and odour contacts ODI profile

For our outperformance rate we have a WTP of c£169k per contact per 1,000. This reflects our customers' priority to improve this area as new innovations arise. The total potential outperformance reward is £0.14m over 2020-25. Our annual costs amount to £25k p.a. per contact per 1,000 people. We use the standard Ofwat methodology calculation to arrive at an underperformance incentive rate of £157k per contact per 1,000 people, a total potential underperformance penalty of £0.20m over 2020-25.

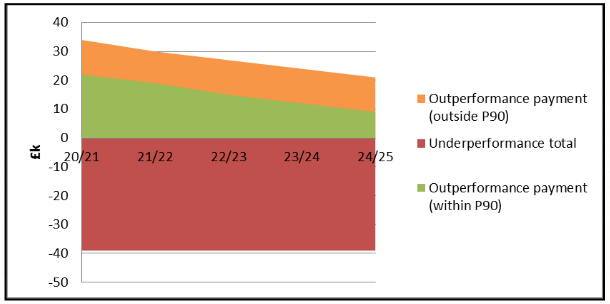


Figure 94: Taste and odour contacts incentives profile (£k)

Reason why our target is stretching

We are targeting a level of performance which is beyond the forecast industry upper quartile based on historical data available.

Turbidity performance at treatment works (no. of failing works)

PC: Mandatory area – asset health, wholesale network plus control

ODI: Underperformance penalty only

PC Driver: Best historical performance (0 failures). This is an asset health measure.

Description: This was an AMP6 sub-indicator to our Asset Reliability (Non-Infrastructure) performance commitment. It is now being reported as a separate performance commitment. It is used as an indication of the health of treatment processes, such as the operation of filter performance.

We are using the standard definition for reporting which is the number of operational potable water treatment works whose turbidity 95th percentile equals or exceeds a 0.5 NTU (Nephelometric Turbidity Units) threshold.

Benchmark: Historical performance has been 'zero fails' and the target is set at zero fails.

Changes to this PC

The following changes have been made to this PC:

- Collar re-set from 1 to 5 in response to the IAP action BRL.OC.A26.
- ODI rate changed from being based on a multiplication of the unit or total cost. This is because the marginal costs in our original submission applied the unit costs over a smaller area of performance. As the area of performance has increased to reflect our new collar, it is therefore also appropriate that the multiplier of 10 times marginal costs for this performance commitment is revised to reflect marginal costs. Effectively we have re-targeted incentives at CRI for asset health.

Our target and incentives

We have assumed that the target should be set at zero, which is consistent with our historical performance.

We have proposed a penalty only ODI with no deadband and a collar of five works failure.

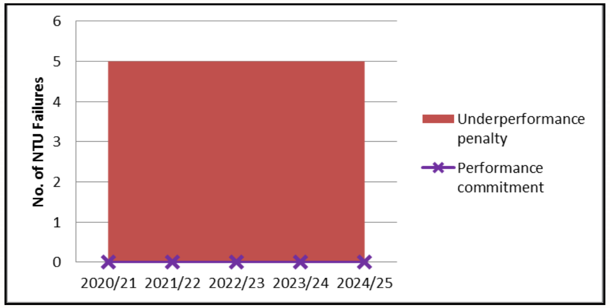


Figure 95: Turbidity ODI profile

Although customers have a willingness to pay to avoid water quality incidents, this is captured in other measures.

Instead we have set our underperformance penalty as a multiple of our costs to incentivise underlying maintenance. This results in a penalty of up to £2.1m over 2020-25, reflecting the importance of this measure to water quality.

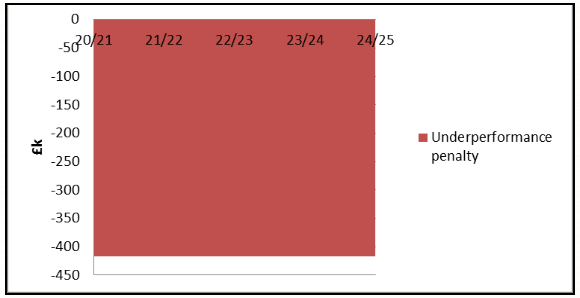


Figure 96: Turbidity incentives profile (£k)

Reason why our target is stretching

The target represents full compliance (zero failures).

Our plans for 2020-25 and beyond

Our plan is designed to meet the requirements of the DWI and is in line with our DWSPs.

We aim to halve the likelihood that customers experience a problem with the appearance or the taste or smell of their tap water.

We will continue to invest in maintaining and upgrading our treatment works so that they continue to provide top quality water.

We will reduce discoloured water by continuing to target and replace those mains which are deteriorating, and systematically flush those areas where we detect increased iron concentration in the water and/or have a number of discoloured water complaints. We plan to reduce taste and odour contacts by optimising water treatment and improving customer information, noting the impact of improved supply resilience in moving water around our region.

Replacement of lead supply pipes on a homeowner’s property remains a difficult problem due to a lack of customer willingness and access issues. Consequently, we will undertake pilot lead pipe lining trials during the period 2020-25 and compare its effectiveness and cost against typical lead pipe replacement. The results of the trials will be used to inform our long-term strategy. We have not included the additional cost of these pilots as we will deliver them within our existing maintenance and lead pipe replacement activities.

Our customers are responsible for their own pipes within their property; however, we are continuing our programme of lead pipe replacement in high risk properties such as schools.

Our metaldehyde reduction approach through catchment management continues to mitigate the risk. Following the Government ban on outdoor use of metaldehyde, we have removed our cross-subsidy to farmers for the alternative product marginal additional cost, but have an undertaking from the DWI to continue our engagement and monitoring work until at least 2024. Further information can be found in **BRL.C5C. TA04. Raw Water Metaldehyde.**

We plan to continue to put catchment management at the heart of our work in the Mendips to improve both raw water quality and biodiversity. The Environment Agency and Natural England continue to support our approach and there are catchment management schemes in WINEP3 to reduce nutrient run off for algae in the Cheddar / River Axe catchment. The EA and NE have also provided general support for a wider catchment management and biodiversity programme. Even though there is no formal regulatory requirement for the period 2020-25, it does form part of how we meet wider expectations of Government and our customers.

We also routinely take a forward look at our challenges. We have identified that heightened public awareness of microplastics and associated research could mean there may be a requirement for a replacement programme of older plastic pipework if these are shown to shed plastic micro-fibres. We do not propose any pro-active replacement of this pipework in this plan, other than as part of the general outcome delivery of our plan.

9.6 Promise: reducing supply interruptions

Our customers’ views

What matters the most to our customers

We know that customers value avoiding interruptions, particularly when they last a long time and are unexpected. Customers who have experienced disruption are more concerned about avoiding them in the future.

When discussing supply interruptions and reliability as a performance commitment with customers, surprisingly they didn’t always prioritise it to the same extent as other measures. Some customers we talked to about this saw occasional interruptions as inevitable and bearable and prioritise commitments in other areas more strongly. This is in part because our response when customers are interrupted has enhanced our reputation with them – a good response to a problem means customers think you are doing well. Younger, future customers have less tolerance as they do not have the same memory of services when interruptions (and other water quality and supply issues) were more frequent. However, more generally, customers do recognise the impact of disruptions on vulnerable customers and see it as a key part of a water company’s main responsibilities.

From our research with customers who had experienced interruptions we have gained useful insights into how to improve our response to interruptions, which can have a big impact on how customers experience them – this is captured under the proposed C-MeX measure.

Customer feedback on our draft business plan

To guide the process of talking to our customers about our Business Plan, we presented three possible plans. These alternatives described ***slower***, ***suggested*** and ***faster*** paths to the same long-term ambition.

Most of the customers who responded to our consultation said that they preferred the ***slower*** investment plan for reducing supply interruption (67%). This in part was because the slower plan included a 66% performance improvement (it was based on current industry average). Customers who commented on this performance commitment said they were not concerned, either because they had not experienced interruptions, or because they felt they were manageable if customers were kept informed. This performance commitment has the lowest customer support for the ***faster plan*** out of all areas in the safe and reliable outcome, however reliability is identified in other research as a top priority, suggesting that the consultation response relates to the price package rather than the performance commitment itself. Having a reliable water supply is a top priority in general for customers, so this is a clear response to the price package and level of improvement in the ***slower*** plan, rather than the service area as a whole. We carried out further acceptability testing to assess **whether to only hit the 2020 upper quartile** (the ***slower* plan**), but with the potential for a smaller bill up to 2025 with a potential uplift in 2026 as penalties were removed / additional spend to hit 1.8mins/property as the forecast upper quartile, 82% of customers preferred the ***suggested plan***. Therefore, we maintained our target approach for the final plan, rather than storing up problems for the future.

Maintaining the health of our assets through regular maintenance and replacement when required ensures that we will be able to continue to provide reliable services to our customers in the future. This is a base level of service that we need to provide as the foundation for all other service improvements. Our improvements in asset health ultimately are the outcome of the service target delivery for the targets customers most cared about.

Through our robust investment planning, which includes risk assessment processes and deterioration models, we have identified the efficient level of activity required to maintain our assets at the standard necessary to deliver services to customers, including asset health where this is the outcome from delivering the service improvements that customers notice most. This means that customers will continue to be protected by investment in this plan, without storing up problems for the future.

A safe and reliable supply has always been the top priority for customers throughout all our research and engagement. The conclusion of customer engagement on the safe and reliable supply outcome measures was to continue with the ***suggested plan***, if phasing of improvements mean that it can be delivered at a time when bills are reducing overall. We have achieved this balance.

In our final plan acceptability testing (in the context of comparative information and the proposed bill), 67% of customers agreed with our proposed 85% reduction in supply interruptions and only 4% disagreed. The opportunity for customers to be neutral or "don't know" in these surveys reflected the remainder, which indicates strong support for the plan given the low experience of supply interruptions.

What we have achieved so far

With respect to supply interruptions, we recognise our performance has recently been in the lower quartile for the industry, and this is something which we plan to improve through this plan.

We will be replacing our hydrants, so we can inject water into the network using special tankers. We will also be improving the scheduling and dispatch of our field force, both through new IT technology and new supply chain arrangements through our Transformation Programme.

Our investment and technology innovations and work to reduce leakage will also benefit supply interruptions.

Wherever possible, we have adopted live repair techniques (making repairs without turning off our customers' water supply) to reduce the impact on our customers.

Additional progress over the past six months

We have recently set up a task force that has the sole focus of improving our supply interruptions performance. This task force is cross organisation and is exploring all aspects of our culture, working processes and procedures both in the field and back office to identify opportunities of how we keep water flowing to our customer regardless of circumstances. They have developed a multi-faceted delivery strategy. In the few short months that the task force has been in place our culture and actions have changed. When a burst occurs on our network we now take pride in not only undertaking the repair efficiently and effectively but also undertaking a pre-determined set of actions (contingency plans) to keep our customers in supply. We have also introduced post-event reviews to establish lessons learned and they feed back into our contingency plans. An example of this in action is our response to a burst in Farncombe.

Spotlight on Farncombe burst

In the early hours of 13 February 2019, our operations room noticed that the water level at a service reservoir in Shepton Mallet had started falling abnormally. An inspector was dispatched to investigate, and discovered a significant burst. The burst had the potential to impact 4,263 customers supplied by the service reservoir affected by the burst main.

We responded rapidly due to our monitoring equipment, which allowed us to quickly notify the Environment Agency that a burst had occurred and to begin the process of de-chlorinating the discharging water to minimise the impact to the environment.

Our focus was to keep our customers in supply. While our modelling teams worked to identify a temporary solution, we prepared for the worst case scenario of an interruption to the supply of the area:

- We brought in specialist equipment – a larger tanker lorry capable of maintain supply to over 1,000 customers.
- All vulnerable customers in the affected area were contacted and supplied with bottled water.
- A tanker was filled up and dispatched to provide facilities for residents to fill containers with water.
- Bottled water was located at hub locations. In addition.

Customers were kept informed via social media from the very start, first alerting them that a burst had occurred and that their supply may be affected. When the severity of the incident was apparent, we encouraged residents to fill containers and their kettle to minimise the impact should supply be temporarily lost.

Our modelling work back at Head Office demonstrated that an overland solution was viable, and this was quickly implemented to maintain supply to the whole area.

Our quick response and focus on keeping customers in supply resulted in supply being maintained to all customers in the affected area throughout the incident. In the event of supply being lost, our preparations would have ensured that the impact on our customers was kept to a minimum. The DWI assessed this event as "not significant" under the Event Risk Index (no score) because our approach maintains water quality as well as avoiding interruptions.

This case study demonstrates our change in focus as an organisation, including our change in values and operating model, with customer experience driving our response. Traditionally our response to this incident would have been to isolate and repair the main as the priority, causing customers to lose supply. We still meet leakage targets, by more quickly fixing smaller leaks that annoy customers. However, our focus has shifted as we prioritise keeping customers in supply wherever possible rather than focusing on making the repair as quickly as possible.

The overland solution, bypassing the burst pipe

Spotlight on excellence to retailers and property developers

Although we no longer provide retail services to business customers (having exited the new business retail market to Water2Business when it opened in April 2017), we still aim to give a great experience to business retailers and their customers through our wholesale services team.

We have been amongst the top performing wholesalers in our Market (MPS) and Operational (OPS) performance, were highlighted as the best performing in Ofwat's recent "Call for Inputs" on wholesaler performance and for providing quality data and responsive services to retailers according to data published by the market operator, MOSL. We continue to lead and work closely with all trading parties on improving the market experience for the end user/customer. We are presently working with Wheatley solutions on a Retailer App known as PinPoint to help to improving market data quality.

We also work to ensure that property developers and water infrastructure providers competing in our area get the services they need from us. Our aim is to provide choice by giving them the right information and range of services. Some of our services in the retail market (such as the portal) are being adapted for the NAV Market. The retail market learning has informed our transformation programme customer experience strategy.

Our performance commitments for this promise

Supply interruptions greater than 3 hours

PC Type: Common, wholesale network plus control

ODI Type: Underperformance penalty and outperformance reward

PC Driver: Upper quartile regulatory expectation. We have set targets based on our forecast for the industry top quartile. Performance targets will be reset based on the actual upper quartile, an approach which we understand Ofwat will finalise as part of the final determinations.

Description: This includes planned and unplanned interruptions lasting longer than three hours.

Benchmark: Our benchmark performance against others has tended to be poorer than average.

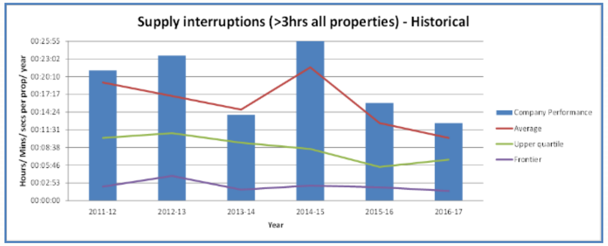


Figure 97: Supply interruptions historical performance

Changes to this PC

The following changes have been made to this PC:

- Our targets have been changed to the industry upper quartile rates in response to IAP action BRL.OC.A9
- The upper outperformance incentive rate has been removed in response to IAP Action BRL.OC.A10

BRL.OC.A10 also asked us to consider the comparable ODI rates for this common PC. Our original ODI rate has been retained. Further evidence of our customer's' valuations supporting the ODI rate has now been included. The proposed unit rates reflect our customer research and WTP, and therefore we do not propose to reflect the industry ranges. We have included further evidence to re-affirm our innovative approach to triangulation, as well as showing the extreme impact on or RORE balance if we had adopted the comparable incentive rates.

Our target and incentives

We are targeting a forecast of industry upper quartile performance in our business plan, but the target and incentives will vary with the actual upper quartile. Our target is based on a dynamic industry upper quartile and is therefore set on the basis that it will change based on industry performance throughout the AMP period. We have revised the upper quartile target to the industry upper quartile derived from IAP data.

Although the format for the common metric is defined as hours:minutes:seconds, we present below as minutes per property as it is easier to present and understand incentive rates in this format.

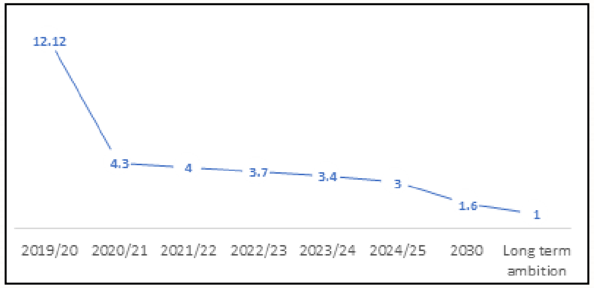


Figure 98: Targets for supply interruptions PC

A penalty and reward ODI is proposed - see Figure 99.

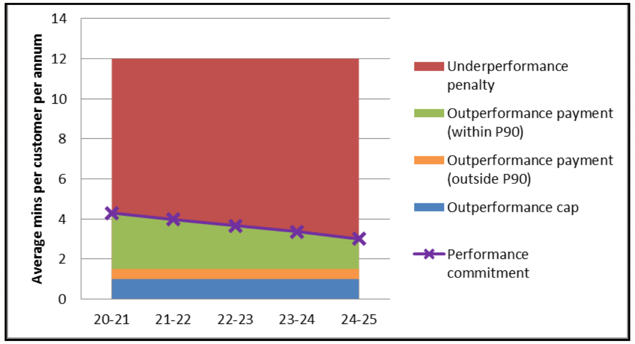


Figure 99: Supply interruptions ODI profile

The standard penalty collar (at 12 minutes) has been set at just below our PR14 target for 2019-20 (12.2 minutes), i.e. if we do not improve on our end of AMP6 target performance we would incur a maximum penalty. The outperformance payment cap (at 1 minute) has been set at a rate that is beyond the frontier achieved in the industry to date (the best performance recorded in the industry was at 1.48 minutes). Deadbands have not been included for either under or outperformance.

Our outperformance rate has been based on a WTP of £205k .

This reflects our customers' priority to improve this area as new innovations arise. The rate calculates an incentive value of £102k per minute and the total potential outperformance reward is £1.4m over 2020-25. Our annual costs amount to £203k p.a. per minute. We use the standard Ofwat methodology calculation to arrive at an underperformance incentive rate of £90k per minute, a total potential underperformance penalty of £3.8m over 2020-25.

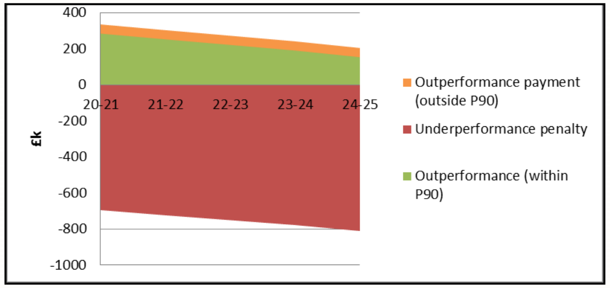


Figure 100: Supply interruptions incentives profile (£k)

Reason why our target is stretching

We are targeting upper quartile performance from a currently 'lagging' level of performance, in part because we previously targeted interruptions from zero minutes, but the standardised industry definition of supply interruptions means we can deliver this performance commitment in a different way, with rapid reaction tankers to maintain pressure in mains which can be deployed in time to meet the 3 hour target.

Mains bursts

PC Type: Common; asset health, wholesale network plus control

ODI Type: Underperformance penalty only

Case for target Modelled performance – improved asset health as the outcome of achieving other targets.

Description: We have adopted the standard definition for the industry for this metric. This is based on the number of mains bursts per thousand kilometres of total length of mains.

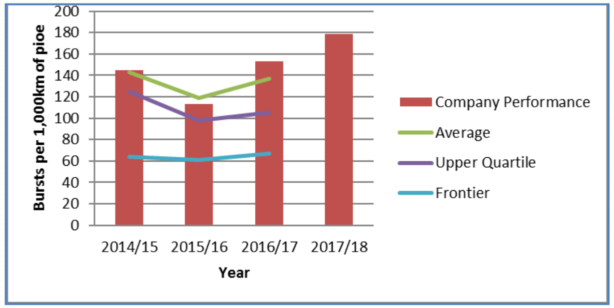


Figure 101: Historical performance for mains bursts

Benchmark: This is a comparative metric and we have historically been performing worse than the average company across the industry. This is due to the age of the network assets, which are the oldest on average according to benchmarking with water companies across Europe.

Changes to this PC

No changes have been made to this PC in response to the IAP actions BRL.OC.A11 and BRL.OC.A12. An explanation can be found in our revised **C3 document, Chapter 8.4.10.**

Action BRL.OC.A11 asked us to demonstrate that our mains burst ODI was coherent with the rates proposed for PCs relating to leakage, supply interruptions and low pressure. The mains bursts ODI is an asset health ODI. Although leakage, supply interruptions and pressure have minor links to asset health, the balance between them is driven by different customer expectations, and often by different operational drivers.

Action BRL.OC.A11 also asked us to consider the comparable ODI rates for this common PC. Our original ODI rate has been retained. Further evidence of our customer's' valuations supporting the ODI rate has now been included. The proposed unit rates reflect our customer research and WTP, and therefore we do not propose to reflect the industry ranges. We have included further evidence to re-affirm our innovative approach to triangulation, as well as showing the extreme impact on our RORE balance if we had adopted the comparable incentive rates.

Action BRL.OC.A12 asked us to justify the inclusion of an underperformance deadband, which has been retained. Further customer research has been undertaken to which supports its inclusion.

Our target and incentives

Our objective is to at least maintain the past level of performance, but to reduce the number of mains bursts as we reduce leakage and supply interruptions in line with customers' priorities. The improvement in the mains burst target reflects the benefit of our maintenance programme, rather than comparing our burst rate to other company networks (which have different factors that affect them). We take a customer centric approach while ensuring past improvements are maintained for the long term.

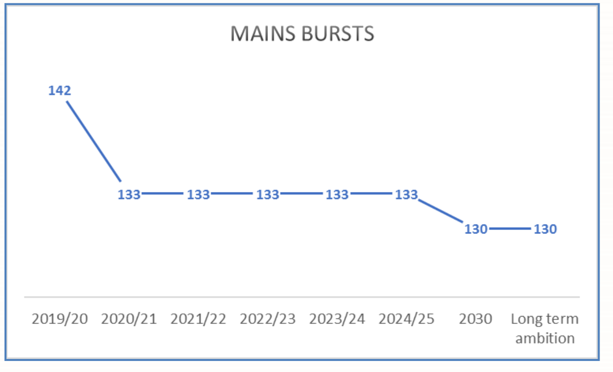


Figure 102: Targets for mains bursts PC

We have proposed a penalty only ODI with a deadband.

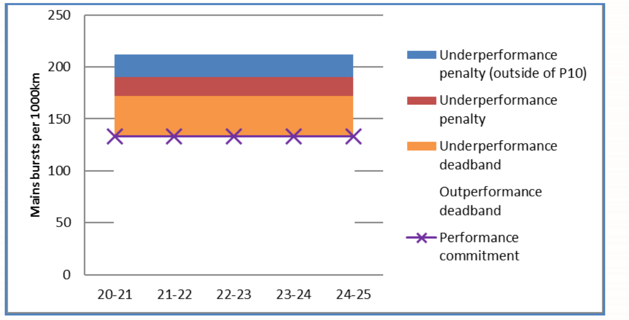


Figure 103: Mains bursts ODI profile

This deadband reflects a degree of annual variation in burst levels, so that penalties are only payable where deterioration in performance would be related to underinvestment or poorly-targeted investment. The penalty collar has been set at our worst performance to date (recorded in 2010-11).

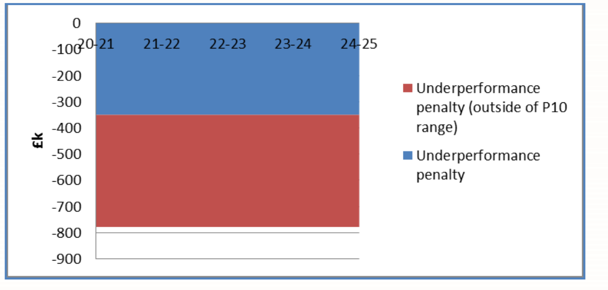


Figure 104: Mains bursts incentives profile (£k)

Customers do not have a direct willingness to pay for mains bursts as this is captured in their preferences for pressure, leakage and supply interruptions. Instead we have set our underperformance penalty at a multiple of our costs to incentivise underlying maintenance. This results in a penalty of up to £3.9m over 2020-25, reflecting the importance of this measure as an incentive to manage long-term asset health.

Reason why our target is stretching

We have a relatively old network and a significant proportion of mains laid during the post-war period (when poorer quality materials were used), which contributes towards the below industry average performance. We have however proposed a 2024-25 target that is more challenging than that proposed in our draft Business Plan. This is due to us considering customer service choices on other targets and identifying the least cost way of delivering these, which included a benefit for mains bursts over time.

Properties at risk of receiving low pressure

PC Type: Mandatory area (asset health), wholesale network plus control

ODI Type: Underperformance penalty and outperformance reward

PC Driver: Targeted improvement, with penalties that reflect asset health and rewards only for significant improvements in performance.

Description: We have adopted the industry standard definition, which measures 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.

This was an AMP6 sub-indicator to our Asset Reliability (Infrastructure) performance commitment. It is now being reported as a separate performance commitment to ensure that our performance is more transparent and therefore easier to understand for our customers

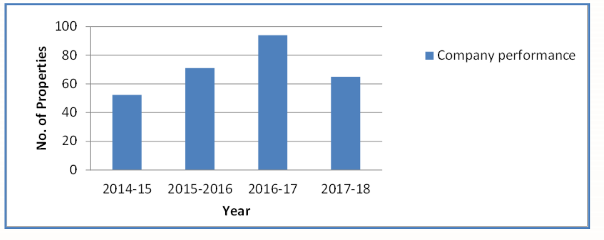


Figure 105: Historical performance for properties at risk of low pressure

Benchmark: There are only a few properties which are at risk of not meeting industry low pressure standards persistently. We will improve over 100 such properties, but new properties sometimes also arise. The net impact is used as a measure of asset health. As this is property specific, we do not use industry benchmarks to set targets.

Changes to this PC

The underperformance and outperformance deadbands have been removed for this PC in response to IAP action BRL.OC.A25.

Other Actions (No Changes to this PC)

No changes have been made to this PC in response to the IAP action BRL.OC.A24, which asked us to demonstrate how we will avoid the double counting of outperformance incentives between this PC and Leakage.

This PC does not cover low pressure from leakage, which would be a supply interruption in the definition, and would not be added to the register if there was an operational incident (as the problem would be resolved rather than persisting). Only a persistent leak that caused persistent pressure issues could be a cross-over, and we are not aware of a situation where this has actually occurred.

Our target and incentives

The target is based on historical performance and while not seen as a priority for many customers, improvements will be achieved, in part as we reduce leakage.

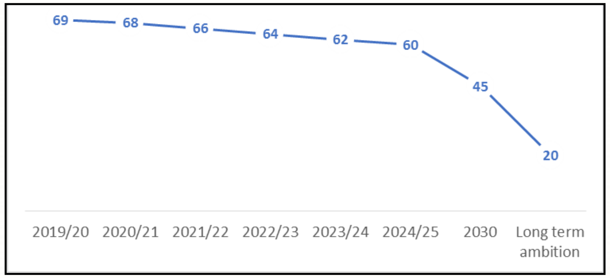


Figure 106: Targets for properties at risk of low pressure

We have proposed a penalty and reward ODI. The underperformance penalty collar has been set at the current upper threshold limit, as this continues to protect past investment. An outperformance reward rate is set at a forecast of industry upper quartile performance, so only a sustained reduction in properties at risk will result in an incentive, recognising that it is uncertain how many new risks will arise.

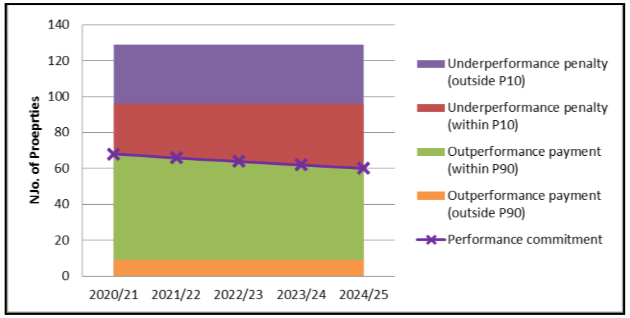


Figure 107: Properties at risk of low pressure ODI profile

Customer WTP amounts to £9k p.a. per property at risk of poor pressure. This results in an incentive value of £4.6k per property and the total potential outperformance reward is £1.5m over 2020-25. Our annual costs amount to £1k p.a. per property. We use the standard Ofwat methodology calculation to arrive at an underperformance incentive rate of £8.6k per property, a total potential underperformance penalty of £2.8m over 2020-25.

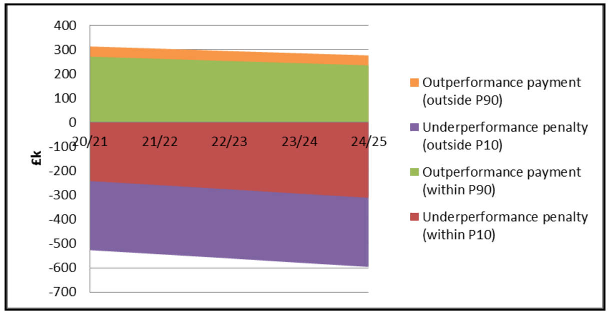


Figure 108: Properties at risk of low pressure incentives profile (£k)

Reason why our target is stretching

Customers generally do not view pressure as a priority. The outperformance payment deadband ensures no payment is due unless our performance moves towards being a leading company in the industry.

Unplanned maintenance – non-infrastructure

PC Type: Mandatory area (asset health), wholesale network plus control

ODI Type: Underperformance penalty only

PC Driver: Average of the best three years of historical performance

Description: We have adopted the standard industry definition, which is the total unplanned non-infrastructure maintenance jobs, required as a result of equipment failure or reduced asset performance, as a proportion of all non-infrastructure assets.

This was an AMP6 sub-indicator to our Asset Reliability (non-infrastructure) performance commitment. It is now being reported as a separate performance commitment to ensure that our performance is more transparent and therefore easier to understand for our customers.

Benchmark: Although there is some data available across the industry, this has not been reported on a consistent basis and so is of little relevance as a comparator. We have therefore considered our historical performance and investment plans when proposing our future targets. This is shown below.

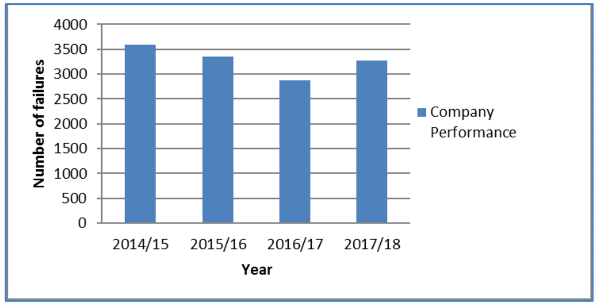


Figure 109: Historical performance for unplanned non-infrastructure maintenance

Changes to this PC

The underperformance deadband has been removed for this PC in response to IAP action BRL.OC.A28, which asked us to justify the inclusion of a deadband and collar.

The underperformance deadband has been removed.

The underperformance collar has been retained; it is based on historical levels of performance for this PC. Further customer research has been undertaken to justify its inclusion.

Other Actions (No Changes to this PC)

No changes have been made to this PC in response to the IAP action BRL.OC.A27, which asked us to set out the marginal costs used within the ODI rate calculation for this PC. Our approach (using marginal cost * totex company sharing rate) reflects an incentive based on 50% of the marginal cost. This approach is consistent with fully compensating our customers for their loss of service. The multiplier of 8* marginal cost (as included within our original submission) has been removed to align with the removal of the deadband.

Our target and incentives

The target has been set at a 3-year average of our best historical performance, at 3272 asset failure events.

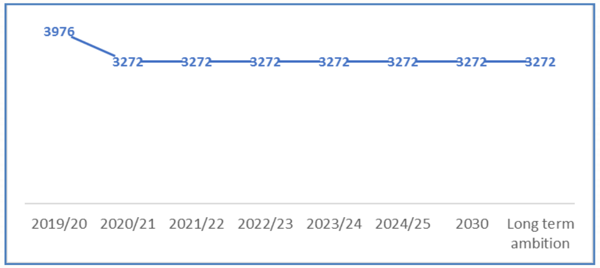


Figure 110: Targets for unplanned non-infrastructure maintenance PC

We have proposed a penalty only target that has been reduced from past target levels to maintain asset health to the level of service we have recently delivered.

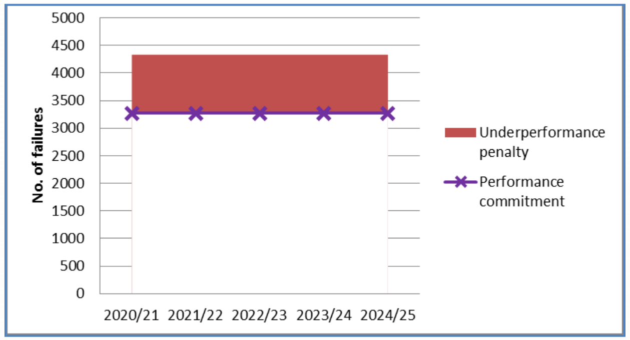


Figure 111: Targets for unplanned non-infrastructure maintenance ODI profile

The underperformance penalty multiplier has been removed as the deadband has been removed - as this previously adjusted to reflect that the unit costs were being applied over a narrower range of performance. This results in a penalty of up to £1.8m over 2020-25, reflecting the importance of this measure as an incentive to manage long-term asset health.

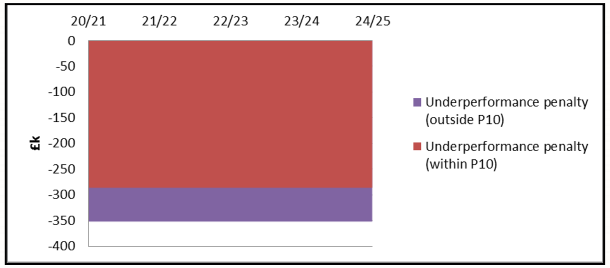


Figure 112: Targets for unplanned non-infrastructure maintenance incentives profile (£k)

Reason why our target is stretching

The target represents the best sustained historical performance, and therefore protects past investment. The collar for penalties is above the worst levels achieved as this target has never been failed.

Our plans for 2020-25 and beyond

We know that customers value avoiding interruptions, particularly when they last a long time and are unexpected. Customers who have experienced disruption are more concerned about avoiding them in the future.

We know that customers value avoiding interruptions, particularly when they last a long time and are unexpected. Customers who have experienced disruption are more concerned about avoiding them in the future.

We are working to improve the resilience of our network. A combination of our effective operational response, better targeting of problem pipes, improved understanding of asset criticality, and our resilience performance commitment will all help to improve reliability of service. We are also implementing initiatives to better understand our network, both in terms of having ‘calmer’ DMAs and smart data – all of which will be supporting delivery of this promise.

Investments that contribute to the reduced mains bursts target are similar to supply interruptions, including targeting distribution network zones for a wide range of leakage and interruption risks. In addition, an investment of £3.1m in ’sliplining’ projects delivers water compliance, mains bursts, leakage and discoloured water benefits in our plan.

To deliver continued benefits to our customers we will develop a configuration that creates a smarter network through deployment of additional sensors.

We will achieve this by installing:

- 800 additional pressure loggers in all district meter areas;
- 160 additional transient monitors in our highest risk district meter areas; and
- 1000 additional flow loggers in all remaining waste water meter districts.

This proactive approach will improve our overall response time and reaction to customers as well as highlight any other issues such as low pressure.

In addition, installing permanently deployed transient loggers will provide advance warning of harmful transient flow before it causes a burst.

The selected network monitoring interventions contribute to ensuring our assets are maintained appropriately for the benefit of current and future generations. The most significant contributions are to supply interruptions, mains bursts, and appearance contacts and low pressure.

In the longer term we plan to continue to use innovation and new technologies to further reduce bursts and supply interruptions.

9.7 Promise: resilience – boosting protection

Our customers' views

What matters the most to our customers

We talked to customers about avoiding severe water use restrictions, and specifically about the idea of a "back-up supply" when considering a range of business plan options. In our initial conversations, customers had mixed views. Some saw the value in investing to ensure as many customers as possible were served by more than one source, whereas others were happy with the current level of service and risk and did not see the need for additional investment. We also talked to customers about improving the resilience of our network in the context of managing supply – at our deliberative events we found that they were supportive of measures that made the network more flexible and avoided the need to increase supply in some areas.

With respect to water restrictions during a drought, our research has shown that customers are happy with the level of drought risk that we currently manage for and few customers rank it as a high priority. However, businesses have more concerns and value avoiding droughts more highly, because of the impact on their profits. We researched this impact and which business segments were most affected, but ultimately our plan did not require a case to be made for reducing risk of droughts, given that most customers preferred leakage and water efficiency reduction over developing new water supplies, and this means drought risk in this region reduces as we deliver other service preferences.

We engaged specifically with customers on our Water Resources Management Plan and found that they were largely supportive of our approach to focusing on demand reduction in the short term and revisiting the plan regularly to ensure it meets long-term needs in the Bristol Water area. We found that they were broadly happy with the levels of drought risk at the time (1 in 15 years for hosepipe bans, 1 in 33 years for Temporary Use Bans - TUBs). In focus groups on our early draft performance commitments, drought risk was second bottom priority, reflecting customers' lack of concern.

We also asked customers their opinions on hosepipe bans and TUBs. Hosepipe bans are consistently given as a low priority across the customer research, and due to a perceived low risk of drought given few recall having experienced one, customers do not value a reduction in the instances of TUBs.

Customer feedback on our draft business plan

To guide the process of talking to our customers about our Business Plan, we presented three possible plans. These alternatives described ***slower***, ***suggested*** and ***faster*** paths to the same long-term ambition.

When we talked to customers about protection against a major water supply event (one that lasts more than 24 hours), a few commented on the importance of preventing a major event, but most commented more generally on interruptions to supply. Customers from the online panel preferred the slower plan, whereas customers in the representative survey preferred the suggested or faster plans, reflecting a difference in understanding of water company risk through being part of full engagement process.

Overall, 53% of customers chose the ***slower plan***, with the remainder being split between the ***suggested*** and ***faster plans*** even though there is no difference in cost. This suggests that supply events or outages are not a priority and that the current level of risk is acceptable.

This is because most customers had not experienced severe interruptions, and those that had were happy with the customer services response when they had experienced events, and did not instantly recall the event. As with our other individual areas, we presented a package of bills for our draft plan so the individual selection of a slower plan required further testing, particular as we reduced costs for our final plan by scrutinising costs and investment options further.

A safe and reliable supply has always been the top priority for customers throughout all our research and engagement. The conclusion on safe and reliable supply outcome measures was to ***continue with the suggested plan***, if phasing of improvement means that it can be delivered at a time when bills are reducing overall.

When we presented customers with a choice between a slower plan in return for a £4 lower bill up to 2025, but the potential for a higher bill if supply interruptions and resilience investment was delayed, 82% preferred us to continue with the suggested plan.

In our final plan acceptability testing, in the context of comparative information and the proposed bill, 75% of customers agreed with our proposed investment to reduce prolonged interruptions and only 4% disagreed. The opportunity for customers to be neutral or "don't know" in these surveys reflected the difference, which is strong support for the plan given the low experience of prolonged interruptions.

What we have achieved so far

Supporting this promise, we have targeted ***asset health and resilience*** through our existing resilience strategy and have delivered stretching targets to boost protection from supply failures by reducing dependency on single sources of supply. Our investment in resilience has an extensive history with investment in various schemes such as the Northern Strategic Support Scheme in AMP4, Bristol Resilience Scheme in AMP5 and the Southern Resilience Scheme in AMP6.

We are not in a water stressed region and drought risk is considered within our WRMP. Our management of water resources has meant that drought risk in recent years has been ahead of target, and we have not imposed any drought restrictions since 1990.

Additional progress over the past six months

Over the past six months we have continued to work to improve our level of operational resilience. This work has included:

- An on-going programme of security upgrades to comply with the standard for security of operational assets, scheduled for completion by March 2020.
- Proactive Brexit planning, including engagement with Water UK and wider industry.
- The recruitment of Emergency Planning and Security Advisor to provide dedicated resource to focus on operational resilience.
- Implementation of severe weather continuity plans.
- Review of emergency management plans

Case study: Southern Resilience Scheme

We have recently invested £27m in our Southern Resilience Scheme to remove the potential for a major interruption due to the failure of a single source of supply for population centres over 25,000 people. The project provides improved security of supply to over 280,000 Customers across our supply area, including Weston-Super-Mare, Cheddar, Burnham and Glastonbury and the southern part of Bristol.

The project has involved laying 30km of new pipeline, installed in three sections from Barrow to Cheddar, as well as an upgraded pumping station at Cheddar Treatment Works.

The work allows us to move water from our northern sources to our southern supply area in the event of a loss of supply, or water back up to Bristol if we lose our northern supply.

The scheme uses gravity, rather than pumping, to get water from Barrow Gurney to Cheddar, significantly reducing energy usage.

Spotlight on: protection from WTW failures

All population centres are now protected from single asset failure on WTW sites, except for some of the population in Glastonbury / Street, and benefit from a resilient supply. This investment has demonstrated that resilience is in place for non-infrastructure assets, for example:

In January 2019, we shut down Clevedon WTW because of Cryptosporidium being detected in a raw water sample. We were able to recover quickly from the incident due to the availability of water from elsewhere in the network, and a quick response to flush the network and ensure there was no risk to customers from water stored in the network. While c16,000 customers were contacted and advised to boil all water for human consumption, it was possible to revoke this notice within 4 days.

More recently, in experiencing extreme weather conditions, notably “the Beast from the East” in early 2018, the Resilience Mains that allow us to move water around our network were available to help us manage the situation effectively. This is also the case during summer 2018, where the southern resilience support main is providing resilience to the southern area from the north to ensure water resources are available should the dry weather continue.

Spotlight on: asset criticality profiling

We have undertaken a significant programme of work to make sure we understand where our critical mains are. This supports our aim of an integrated evidence and risk-based approach to managing assets. We worked collaboratively with Minerva to develop a framework for asset criticality profiling, which has been used to provide the ‘order of magnitude’ of totex investment in relation to strategic trunk mains infrastructure. A key element has been developing a Criticality Profiling Methodology, providing a framework for quantifiable assessment of water supply resilience, third party damage impact and cost of failure. We now have a criticality profile for 1,000km of strategic mains. The results are integrated into our corporate Graphical Information System (GIS). One specific output of this analysis was the **Exceptional Sites** work, which has identified where bursts would cause significant disruption to wider societal infrastructure, such as railway crossings, and which as a result may be expected to lead to extended periods of time to fix.

Outputs of this study contributed towards our Trunk Mains investment plan.

Our performance commitments for this promise

Unplanned outage

PC Type: Common; asset health, wholesale network plus control

ODI Type: Underperformance penalty only

PC Driver: Asset health, but as a new measure target improvements based on expert knowledge

Description: We have adopted the standard definition for the industry for this metric which is the annualised unavailable flow, based on the peak week production capacity (or PWPC), for each company. This is shown as a percentage.

This measure is to be used as a means of assessing asset health (primarily for non-infrastructure – above ground assets), for water abstraction and water treatment activities.

Benchmark: No comparable data is available for benchmarking and has not been reported previously by the company. Figure 113 gives an estimate of our historical performance.

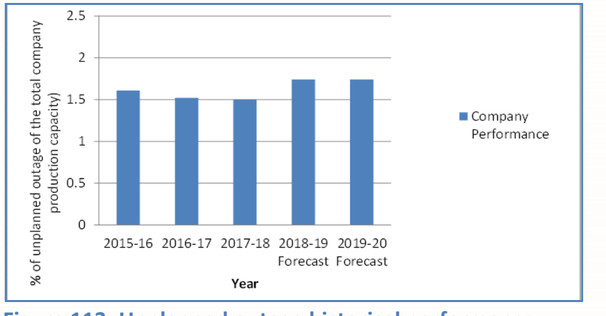


Figure 113: Unplanned outage historical performance

Changes to this PC

We have made the following changes to this PC:

- Further information on our shadow reporting has been included in response to IAP action BRL.OC.A13
- Our targets have changed from 1.74% to 1.5% across the AMP to demonstrate our commitment to focusing on resilience
- Our ODI rate changed from being based on a multiple of unit costs as a result of the change in the additional stretch in the target

Other Actions (No Changes to this PC)

No changes have been made to this PC in response to the IAP action BRL.OC.A15. The information requested in response to BRL.OC.A14 will be submitted separately by the deadline of 15th May.

This action asked us to consider the comparable ODI rates for this common PC. Our original ODI rate has been retained. Further evidence of our customers' valuations supporting the ODI rate has now been included. The proposed unit rates reflect our customer research and WTP, and therefore we do not propose to reflect the industry ranges. We have included further evidence to re-affirm our innovative approach to triangulation, as well as showing the extreme impact on our RORE balance if we had adopted the comparable incentive rates.

Our target and incentives

As this is an asset health metric that has no reliable historical performance information to compare ourselves to, we have set our service levels for AMP7 based on the expert knowledge of Bristol Water staff. The target has therefore been set at around the average historical performance to date (but this also takes into account the immature dataset).

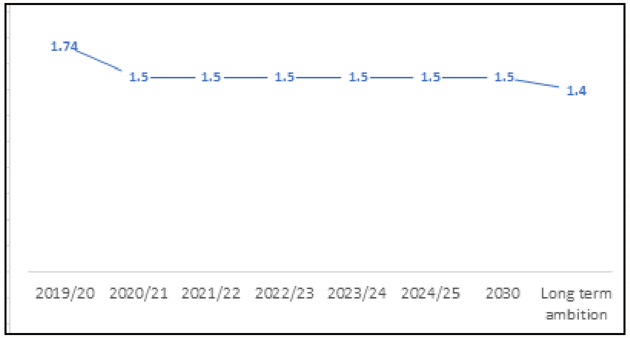


Figure 114: Targets for unplanned outage PC

We have proposed a penalty only ODI with no penalty deadband. This reflects that we expect our outage performance to improve and so no deadband is proposed despite the uncertainty associated with this new industry measure. The collar is set at 2%.

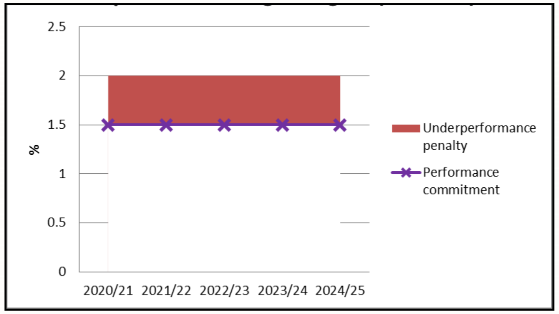


Figure 115: Unplanned outage ODI profile

The change in the level of service performance results in a penalty of up to £1.0m over 2020-25, reflecting the importance of this measure as an incentive to manage long-term asset health.

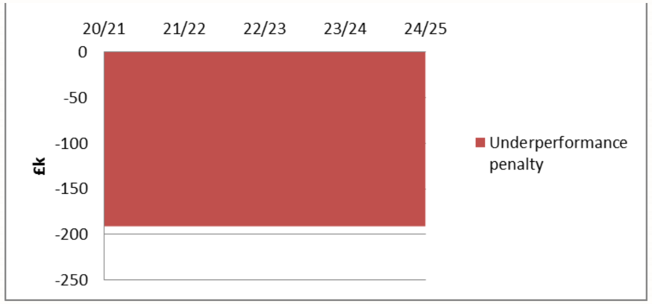


Figure 116: Unplanned outage incentives profile (£k)

Reason why our target is stretching

Although there is no comparative data, we have used expert knowledge and our historical data to set the target. This is appropriate for a new asset health measure without accurate industry reference points.

Population in centres at risk of asset failure

PC Type: Bespoke, wholesale network plus control

ODI Type: Underperformance penalty and outperformance reward

PC Driver: Reducing risk of long interruptions, zero people in population centres over 10,000 by 2030

Description: This is a bespoke performance commitment, unique to Bristol Water. It is a measure of reduction in risk for population centres greater than 10,000 served by a single route of supply where asset failure would lead to an interruption over 24 hours.

Bristol Water has made significant investment in operational resilience over successive price review periods, to improve the reliability of our network, provide greater inter-connectivity and increase the robustness of our business.

This is a revision of our AMP6 resilience performance commitment. Our AMP6 performance commitment protected population in centres of more than 25,000 from the risk of above ground asset failure related to the supply from a single water treatment works.

Our new measure responds to risks in any of the critical assets serving an area which could lead to supply interruptions of greater than 24 hours. It also targets smaller population centres, relating to those over 10,000 people, as well as extending protection to critical pipes as well as treatment works.

Benchmark: This is a bespoke performance commitment unique to Bristol Water; so comparative information is not available. It has been included as our bespoke performance commitment that reflects our approach to resilience. This type of approach is one of the possible types of measure Ofwat suggested. Developing our existing measure was an obvious choice as the resilience metric for our plan.

Changes to this PC

Changes have been made to this PC in response to action BRL.OC.A4, which noted concerns regarding the disproportionately high ODIs for PC. We have reconsidered the balance of the design of the incentive for this PC and introduced a cap on rewards at two years early delivery.

As part of our response to the IAP, we have provided compelling evidence as to why this expenditure reflects resilience (low probability/high consequence) risk reduction that customers support, rather than contributing towards the achievement of a lower than upper quartile level of supply interruptions (noting our plan was proposing a frontier improvement, which on its own could have justified enhancement expenditure).

Other Actions (No Changes to this PC)

No changes have been made to this PC in response to the IAP action BRL.OC.A29, BRL.OC.A30 and BRL.OC.A31.

Our proposed performance commitment is a 10-year programme, with 542,886 customers benefiting from enhanced protection in AMP7 and the remaining 290,000 in AMP8.

IAP action BRL.OC.A29 asked us to justify the inclusion of an outperformance payment, which has been retained. Further customer research has been undertaken to justify its inclusion. The customer support was set out in our plan, including from the customer forum and the acceptability testing undertaken. This was also noted as an area of good practice in the IAP for the customer engagement on resilience and proposing a forward looking ODI as a result such as this.

IAP action BRL.OC.A30 to justify the use of supply interruptions greater than 24 hours as a proxy for customer willingness to pay for this ODI. The customer support for this measure and its cost benefit are linked to specific customer valuations for long-term interruptions i.e. interruptions that are greater than 24 hours. The outperformance payment is justified therefore by customer evidence.

IAP action BRL.OC.A31 to justify the inclusion of a collar for this PC. The collar is theoretical - the collar is mathematical by design – our performance cannot exceed the starting point which is reflected in the collar level.

Our target and incentives

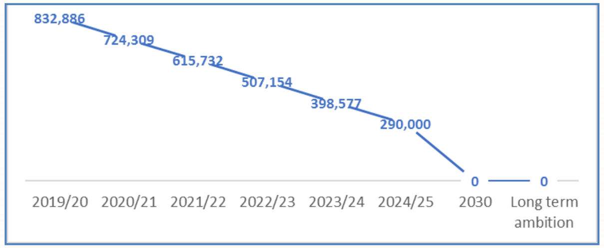


Figure 117: Population in centres at risk of asset failure targets

Note: the long-term ambition is for population centres > 3000 to be targeted (beyond AMP7), which we think represents the point at which short term tankering will avoid long interruptions for rural communities to receive a consistent level of resilience with more urban areas.

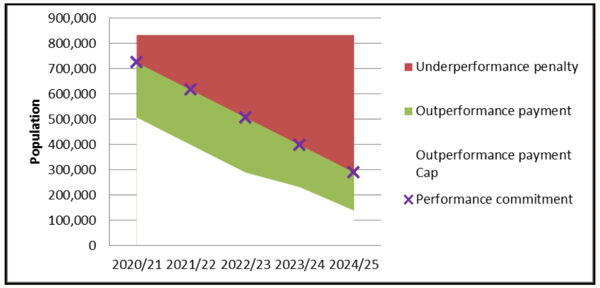


Figure 118: Population in centres at risk of asset failure ODI profile

An underperformance penalty and outperformance reward ODI with no deadbands is proposed. A penalty would be due if the Company failed to improve on the number of people calculated to be at risk at 2020. The maximum outperformance payment would see the population at risk reduced. A performance cap has been introduced in response to the IAP and this caps outperformance at two years' early delivery of the ten year programme.

The customer willingness to pay is based on each person at risk of a long interruption each year. This amounts to an incentive rate of £2.36 per person, and a total potential outperformance payment of £2.3m over 2020-25. Based on our cost of delivery of £1.52 per person, using Ofwat's standard formula an underperformance incentive rate of £3.95 per person p.a. is calculated, equivalent to a total potential underperformance payment of £6.4m over 2020-25.

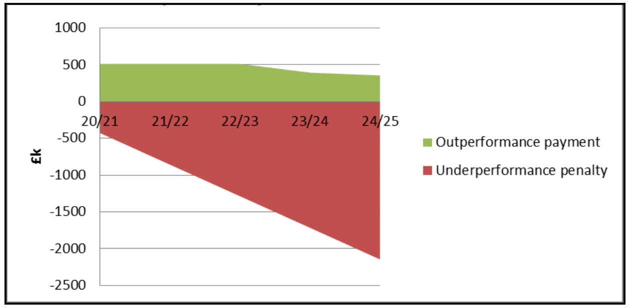


Figure 119: Population in centres at risk of asset failure incentives profile (£k)

Reason why our target is stretching

Because we aim to achieve a long-term ambition of zero customers at risk in population centres of over 3,000. Customer views have informed the pace of delivery of population centres over 10,000 by 2030, with the technical feasibility of further resilience improvements to the smaller population centres likely to be improved over time through innovation and learning from this commitment.

Risk of severe restrictions in a drought

PC Type: Common, water resources control

ODI Type: Reputational

PC Driver: No restrictions to supply during a drought

Description: We have adopted the standard industry definition for this metric. This is the percentage of the customer population at risk of experiencing severe restrictions (for example, standpipes or rota cuts as part of Emergency Drought Orders) in a 1-in-200 year drought, on average, over 25 years.

Bristol is not a water-stressed supply area, and many living in the area have not experienced the impact of drought causing water restrictions, which last occurred 29 years ago.

We have adopted Ofwat's recommendation that this performance commitment is a reputational incentive, as it is a new industry metric.

Benchmark: As the target is to achieve the maximum level attainable no other approaches to setting the performance commitment levels have been considered.

Changes to this PC

Changes have been made to this PC in response to action BRL.OC.A16, which asked us to explain our level of stretch and submit the intermediate calculation outputs for this PC.

We have adjusted the target for this PC, reflecting a change to the measurement methodology rather than a change to the level of service that our customers will receive. Following this change, we have provided our view of our level of stretch and we have submitted the intermediate calculation outputs.

Our target and incentives

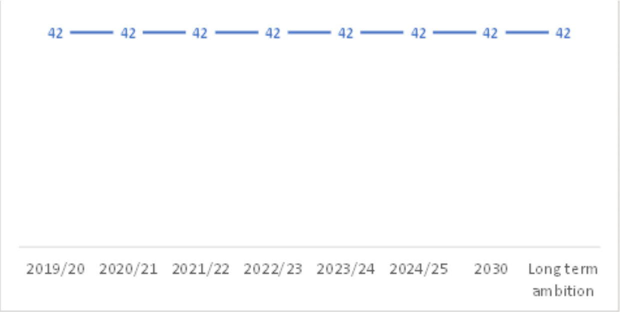


Figure 120: Targets for risk of service restrictions in a drought

As this has a reputational ODI there is no impact on our customers' bills.

Reason why our target is stretching

Our target is to avoid water restrictions in all normal circumstances. We plan to retain a small supply surplus during AMP7, which will ensure that no customers are at risk of interruptions due to a drought. This metric represents an average over a 25 year period.

Our plans for 2020-25 and beyond

We will maintain the health of our assets by targeting our maintenance investment in a way that protects services to customers.

We have sufficient information to understand the risks to resilience and have developed interventions to mitigate this risk, building on our track record from past investment.

The major investment that we have identified for meeting this promise is the investment outlined in our plan for protecting over 540,000 additional people from the risk of a major water supply event.

We have identified 81 critical mains which, should they fail, would affect population centres greater than 10,000. These serve 832,886 people, which is 68.6% of the total population served. Through this investment we will reduce those at risk in these areas to 290,000 people by 2025, with these remaining people in centres over 10,000 being protected by 2030. This investment will secure resilience for a significant proportion of our customers. This goes beyond a single source of failure, to including pipes and pumping stations, building on our experience of the Willsbridge burst.

We will focus on enhancing the resilience of our critical mains, the ones that have the potential to cause the most disruption to customers or the community should they fail.

We will achieve this in a number of ways:

- By undertaking a System Resilience Assessment to develop an improved understanding of the risk including root causes, likelihood and potential risks during planned operational activities; and
- By implementing a programme of measures to address risks to the resilience of critical mains, including mains duplication, installation of manual and dynamic valves and turbidity meters.

We are also employing innovative approaches in the use of Dynamic Boundary Valves to enable us to improve how we can react to severe disruption events. This allows us to divert or introduce water to an isolated section of the network quickly.

Our Water Resource Management Plan will ensure that the risk of needing to apply severe water use restrictions during a drought remains very low. We have summarised key messages from our WRMP at the end of this chapter.

Our delivery incentives for this outcome

The maximum total underperformance penalty for this outcome is £30m over 2020-25, which would equate to a c£8.50 reduction per household customer per annum.

The maximum total outperformance reward for this outcome is £5.4m, which would equate to a c£1.50 increase per household customer per annum.

The largest ODI range is for the population at risk of asset failure PC.

In the chart below, we also show the level of performance expected to occur 80% of the time, reflecting a central estimate of potential rewards for innovation and improvement or penalties for poor performance.

Performance Commitment	Incentive type	2020-25 maximum under performance penalty £m	Annual bill impact £	2020-25 maximum out performance penalty £m	Annual bill impact £
Water quality compliance	Penalty only	- 7.632	£2.00	-	
Taste/odour contacts	Penalty and Reward	- 0.196	<50p	0.136	<50p
Discolouration contacts	Penalty and Reward	- 0.661	<50p	0.182	<50p
Turbidity performance at treatment works	Penalty only	- 2.085	£0.50	-	
Supply Interruptions	Penalty and Reward	- 3.753	£1.00	1.360	£0.50
Mains Bursts	Penalty only	- 3.890	£1.00	-	
Properties at risk of receiving low pressure	Penalty and Reward	- 2.807	£1.00	1.472	£0.50
Unplanned maintenance – non-infrastructure	Penalty only	- 1.761	£0.50	-	
Population at Risk from Asset Failure	Penalty and Reward	- 6.440	£2.00	2.283	£0.50
Risk of severe restrictions in a drought	Reputational	-		-	
Unplanned Outage	Penalty only	- 0.953	<50p	-	
	Total	**- 30.177**	**£8.50**	**5.433**	**£1.50**

Figure121: Outcome delivery incentives summary

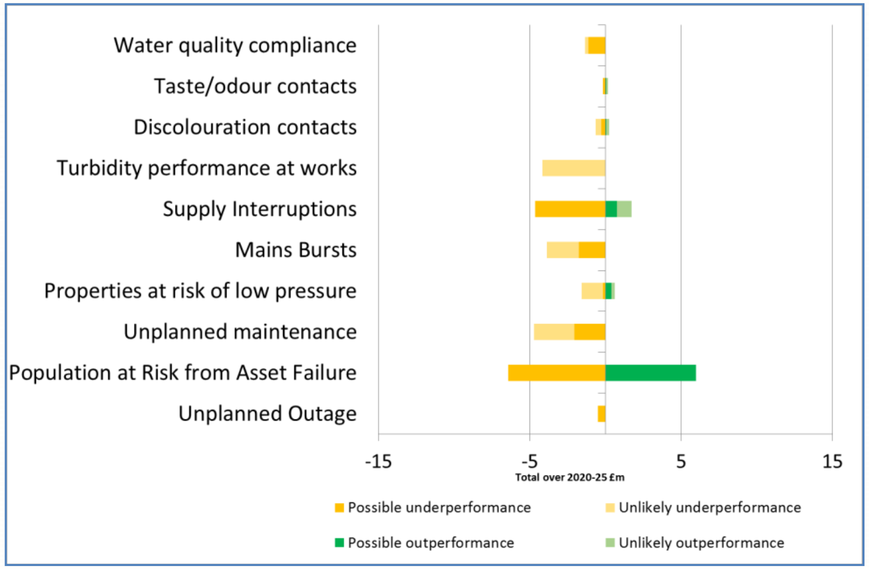


Figure 122: Outcome incentives over 2020-25 in 2017/18 CPIH prices (£m)

10 Outcome 4: Corporate and financial resilience

Our corporate and financial resilience underpins the delivery of our plan, maintaining customer trust by: providing effective corporate governance and being transparent on how we are performing; looking after and developing our people; managing our finances in a prudent and careful way, and providing a framework for resilient and innovative services.

10.1 Introduction

Our Corporate and Financial Resilience outcome does not include any customer performance commitments or ODIs. Instead it covers all the factors that underpin delivery for customers, including efficiency, innovation, health and safety and corporate governance.

It is therefore fundamental to our delivery of 'resilience in the round'. In this chapter we describe the key components of our corporate and financial resilience and how our plans contribute to this.

10.2 Board governance and transparency

The trust of customers is an essential foundation which enables us to achieve the balance between service improvements and bill level. We expect bills over the period to 2030 to be in line with or below CPIH inflation, after the reduction we propose in 2020. The main variation in bills over this period may be from regulatory incentives (including the reversal in 2026 of penalties from 2015-20 performance). We see transparency on the trade-offs we make in achieving our plans as an important component of how we build on the high level of trust we already have with our customers. Even though these high levels of trust exist, we will have to work hard to build an understanding of how the environment and community initiatives we are proposing influence the water service our customers receive. We have had to stretch ourselves in developing our proposed incentives because we have a maintenance driven plan, which relies on interlinked small investments and initiatives, but as a package of measures they have a large long-term impact on the communities we serve. This has driven our outcomes and performance commitments for 2020-25 and beyond.

Our plan has been developed with the full ownership of the Bristol Water Board and the support of investors. We have undertaken extensive engagement and research to set out the key factors driving the business forward to deliver for customers and stakeholders, and to meet our ambitious vision for the wellbeing of society.

Corporate governance

We have a published corporate governance code which sets out the role of the Board to provide leadership, accountability and legitimacy. This recognises Board ownership of the company's strategy, and the role they play in meeting regulatory and statutory obligations and to deliver the service and performance which meets the needs of customers, the environment, the business and shareholders. The code covers a range of matters, including the composition of the Board and how its effectiveness and performance will be evaluated. It makes it clear that the Board of Bristol Water act as an independent company from shareholders, accountable to a range of stakeholders for their performance. Our shareholders bring a wide perspective, and as long-term investors, seek fair returns over the long-term by challenging and supporting management to deliver.

There are significant changes to the corporate governance expectations on companies, both in the UK Corporate Governance Code that applies to large companies and public services providers such as Bristol Water, and in Ofwat reviewing their principles of Board Leadership, Transparency and Governance. While these changes are being made in parallel to developing our plan, we have anticipated these changes and welcome them. Our dividend and remuneration policy presented as part of this plan ensure that shareholders receive fair returns for their investment and that the long-term stretching performance in cost and service levels reflected in this plan are also reflected in the remuneration of both executives, and the entire organisation.

Unexpected events may mean that there are occasions where we do not comply with all expectations. Where this occurs we will explain the circumstances and be transparent and justify our approach and the steps we are taking to improve. This is to be expected at a time of change, and as an example we highlighted the approach we took in our annual report when two independent non-executive directors unexpectedly resigned recently.

Our priorities in developing this plan are aligned to our corporate governance:

- Continuously improving the quality of Board and company relationships with a wide range of stakeholders. Our commitment to community initiatives, including financial incentives and the "***Bristol Water for All"*** reinvestment mechanism, embed this commitment and on-going dialogue as a key management objective. This is part of our 'Being Trusted' corporate objective.
- The Board are responsible for ensuring a healthy culture and values within the company. This is part of our "Develop our people and the business" corporate objective. It is also a key part of our Corporate and Financial Resilience outcome, both in terms of health and safety and also delivery for customers. This culture is the most important way in which we maintain the trust of our customers.
- We avoid a tick-box approach to corporate governance. As a small water-only company, we have in place governance arrangements that generally apply to much larger companies because of the important public health services we provide to society. However, we also have the advantage of direct contact to local stakeholders and customers. The Board stays close to the communities we serve through direct local engagement.
- Both independent non-executive directors and shareholder representative non-executive directors have an important role to play. Our policy is that non-executive directors should be the largest group on the Board. Our Board effectiveness reviews check that no group dominates Board decision making and this should determine the overall balance and whether independent non-executives at a point in time will be the majority of the Board, including our independent Chair.

Health and safety

Health and safety is our number one priority. The message from the top of the organisation is clear: health and safety underpins everything we do and must be inherent to our culture. An independent review of our approach was carried out in 2017 and a series of initiatives are in place to drive further improvement. These include:

- Director safety inspections.
- Regular toolbox talks for staff to raise health, safety and wellbeing awareness.
- Company-wide launch of the 'Take 5 for Safety' campaign to bolster safety messages to all staff.
- Working with our contractors to ensure we are aligned at all levels.
- Launch of new site inspection, hazard reporting and improved lone worker systems.
- Co-ordination with our shareholders, who have their own health and safety processes, facilitated through sharing best practice between Bristol Water and other organisations.

We also encourage innovation in health and safety. One idea generated through an innovation exchange and now being deployed at our sites is the use of floating platforms to provide a safe working environment on water that is faster and cheaper to deploy than scaffolding.

The wellbeing of society is at the heart of our strategy, but for corporate resilience it also applies to our staff. We recognise that stress and mental health can be one of the main causes of health and safety risks, and we have integrated this into our people plans, under our Transformation Programme.

Developing our people

Our people are critical to our success; they make Bristol Water the organisation it is through their customer service culture and dedication. Staff provide many of our future innovation ideas and are rewarded for them through our 'Brainwaves' scheme. We place an increasing emphasis on listening to our people and using the findings to share our future plans.

Management and staff throughout the organisation have access to company performance related bonuses, reflecting cost, cultural targets such as Health & Safety and performance against key customer priorities, such as leakage and customer service. The weighting in performance bonuses between company targets and individual performance objectives varies and is highest weighted for executive directors, aligning their interests to achievement of organisation change and delivery for customers.

Bristol Water's Resourcing Strategy focuses on attracting and retaining the skills needed to deliver excellent customer experiences in a rapidly changing industry. It has five key components:

- Early Careers programmes, which includes a talent programme for future leaders and targeted development of technical skills.
- Retaining high calibre staff by focusing on engaged teams, operational excellence, a sustainable workforce and outstanding leadership.
- Long-term arrangements for contractors that are mutually beneficial.
- Using a competency framework to underpin talent development, acknowledging that staff are Bristol Water's most important asset.
- Working with partners and charities to build skills in the community and to provide continuing professional development opportunities for our staff.

Our dividend policy

- We will not pay out dividends that impair the ability to finance Bristol Water's appointed activities, including the impact on key financial ratios consistent with the need to maintain an investment grade credit rating. Dividend payments also do not adversely impact employees, given there are no pension schemes that require future deficit contributions.
- We will pay a level of ordinary dividends that reflect efficiency, management of economic risk and delivery of performance commitments to customers, comprising:

  i. An annual level reflecting the dividend yield (3.2%, with 1.3% p.a. real growth) assumed in our business plan.

  ii. Adjustments to reflect the level of gearing variation from the level of equity return in our business plan (4.5%), where this reduces the amount of dividend below the level described above.

  iii. Adjustments to reflect the actual outcome and expenditure performance of the business, with reference to our agreed business plan.

  iv. An amount equal to the post-tax interest receivable from Bristol Water Holdings UK Limited, a UK parent Company, in respect of inter-company loans.

  v. In addition, annual dividends paid on irredeemable preference shares which are considered debt on the balance sheet will be paid, but are shown within finance costs rather than dividends.

- Dividends in individual years may vary to reflect funding requirements, and also to reflect financing outperformance. We have proposed a mechanism to share the benefits with customers of gearing where it increases above 70% (with the mechanism adjusting from 65% gearing in these circumstances). This supports retention of dividends within equity as financial needs arise.
- Should our actual gearing increase to more than 70% and cumulative dividend yields over 2020-25 are expected to exceed 5%, then we will demonstrate in our annual report how this is consistent with financial viability over the future period.
- We will discuss our dividend performance and company bonus schemes periodically with the Bristol Water Challenge Panel as part of their review of our delivery for customers and the communities we serve.
- We adopt the expectations on dividend policy Ofwat set out in the "Putting the sector back into balance" document. Specifically, we will publish details of how we have applied our dividend policy in our Annual Performance Reports and in our accessible "Trust Beyond Water" summary from the Board that we intend to publish separately. This will include any changes to the dividend policy, as well as information on its application. We will also consider how we publish information on dividends on our interactive performance graphic.

Our executive remuneration policy

All staff participate in an annual company bonus scheme. The weighting between company and personal element varies depending on seniority. It is currently set at 50% company objectives, 50% personal objectives for junior grades, and increases to 70% company objectives and 30% personal objectives for more senior grades, including executives. The total potential bonus for 2017-18 varied by grade from 5% to 30% of base salary. For Executive Directors (currently CEO and CFO), 90% of the annual bonus (Annual Cash Incentive Plan) included the same set of company objectives, except for an element that is role specific. This will vary year-by-year and for 2018-19 is 20%. The details of remuneration for Executive Directors is published in the Annual Report.

The Remuneration Committee of the Bristol Water Board, chaired by an independent non-executive director, provide scrutiny of the company pay policy, including executive remuneration and Long Term Incentive Plan (LTIP), which is approved by the Board as a whole annually. The remuneration details will continue to be transparently reported in our Annual Report, in a format which at least meets the principles in the UK Corporate Governance Code and other licence and legislative requirements. This provides a rigorous approach to demonstrating that reward for our people is linked to delivery of our three customer performance outcomes (Excellent Customer Experiences, Local Community and Environmental Resilience and Safe and Reliable Supply of Water), as well as our Corporate and Financial Resilience outcome which includes efficient cost, development of our people and health and safety.

The company objectives for executive pay relate to delivery against strategic outcomes.

- Corporate and financial resilience – the company objectives include efficiency measures (such as performance against operating cost targets consistent with long term plans set out at PR19), health and safety metrics and people development metrics (such as community engagement and employee engagement). The people measures will include delivery of key aspects of our social contract.
- Metrics will reward performance against the key outcomes. At least one measure will be included from each outcome, with the performance trigger reflecting the ambitious target in the business plan. These will be stretching targets for customers, reflected through the service levels in the performance commitments in our business plan. Example measures include:

  i. Excellent customer experiences – C-MeX performance.

  ii. Local community and environmental resilience – leakage, metering.

  iii. Safe and reliable supply – supply interruptions, water quality.

We do not incentivise payment of dividends to shareholders.

The principles set out above will be amended by the Remuneration Committee of Bristol Water, who will describe the approach transparently in our Annual Report. At least 30% of both the ACIP and the LTIP components are expected to be linked to customer outcome metrics for which examples are given. At least 50% of both the company annual bonus and the LTIP components are expected to be linked to outperforming efficient cost allowances or the financial impact of outcome incentives, including the expected 30% of bonus allocated to customer outcome metrics.

The Remuneration Committee and the Board retain discretion to tailor bonus parameters from year to year. This will be reported transparently, taking into account the vision and principles set out in this plan.

We adopt the expectations on performance related pay Ofwat set out in the "Putting the sector back into balance" document. Specifically, we will continue to ensure that performance related pay is linked to the delivery of stretching targets for customers, as described above. We will publish details of how we have applied our executive remuneration policy in our Annual Performance Reports. This will include any changes to the policy and the underlying reasons for changes, as well as information on its application.

Pensions

Through prudent management of our pension scheme, in coordination with Trustees, we have secured the future obligations to members through an insurance scheme. This means that the pension scheme is resilient financially and secures for members their future benefits.

10.3 Transparency and trust in delivery

A key priority for Bristol Water is transparency. In November 2018 we published an independently assured and verified mid-year performance statement for the first half of 2018-19, reflecting the challenges we were facing to deliver the targets we set ourselves. This report included direct comparisons of our performance to the rest of the industry, reflecting our ambitions.

We were pleased that our progress against Ofwat's Company Monitoring Framework was recognised in its 2018 assessment, with our promotion from Prescribed to Targeted category of assurance. Achieving "targeted" status in January 2019 was important to the Board and management, given the need for us to improve national stakeholder trust to the same level as our customer and local stakeholders in Bristol Water.

For PR19 achieving the "Slow Track" IAP status was also important and is the right categorisation for our plan, given aspects of our recent performance and early stage of transformation. Having a plan with many elements of high quality as a new Board and new management, and not being an outlier on cost efficiency as at previous reviews, is also pleasing as it reflects the effort of the people at Bristol Water to deliver the change required.

Benchmarking and communicating our performance

The Board anticipated that at a time of challenging performance and when the legitimacy of the water sector is under national scrutiny, it was essential that there was no ambiguity that customers' interests are at the heart of our business, and it should always be clear that this is the case. Clear and transparent reporting of our performance is therefore priority.

A step of particular significance is for reporting of leakage performance, a measure that can benefit from improved technical data as well as operational performance. The Board has committed to ensure that our outcome incentive payments for 2015-20 are calculated without taking into account technical adjustments that could benefit the incentive calculation. We report our actual level of leakage to reflect the latest and most accurate data, but calculate financial adjustments without taking any benefit from updated information. As part of our commitment we will reduce customer bills by c£1m in 2019 to reflect our leakage performance this year, rather than waiting until 2020. Customer bills will reduce by c£7m between 2020-25 because of the financial incentives that are linked to our current performance targets. Bills may vary from those forecast in this plan to reflect our final performance over 2015-20.

We continue to improve the quality of the information and data we publish and use to manage our business, reflecting the improvements we have made since 2014. We recognise that we need to improve the confidence that Ofwat has in our performance, given their duty to protect customers who have no choice of supplier. We believe that the package of measures in our business plan sets new standards for engagement and transparency with customers.

Our approach to benchmarking and reporting on our performance is summarised in Figure 123.

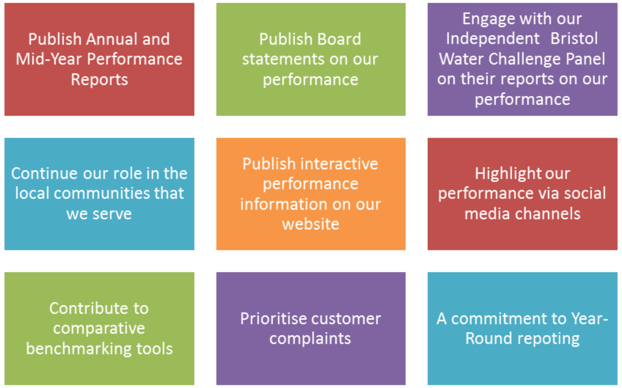


Figure 123: Our approach to reporting

- We will continue to publish both a**nnual and mid-year performance reports**. Our mid-year report includes a comparison to other companies' performance.
- We will continue to publish **this annual statement to the Board,** and the Board will take responsibility for our performance and provide its views in its own words.

- We will continue to receive independent challenge on our performance from the **Bristol Water Challenge Panel**, and publish their independent review on our website.
- Our community initiatives form a cornerstone of our approach for delivering a resource efficient water service. This has transparency on our progress built into our proposals. We will report on progress against our purpose and **social contract** as part of our annual performance reporting. Our sharing mechanism "***Bristol Water for All***" will make sure that there is an ongoing dialogue about how we are delivering our objectives and outcomes. This is linked to two key areas of transparency customers need about our plan – our position as the top water company (and most trusted utility) in the UK Customer Satisfaction Index, and our stakeholders' satisfaction with our community initiatives.
- We will periodically update **the interactive customer graphic on our website**. We have developed a version for our business plan. The 2017-18 reporting version, together with our "Trust in Water" statement from our Board of the trade-offs faced, including a detailed description of financial funds flow as well as customer delivery, in an easy to access format. For instance, reporting on our metering performance included a link to information on how to apply for a meter. We will promote performance in this way with useful information about how we can work with customers to improve our delivery.
- We will continue to use **social media channels** (including Facebook, Twitter and LinkedIn) to publicise our performance and to keep customers up to date on any incidents
- We are committed to providing comparative information to our customers, to ensure that they are fully informed and aware of the context behind our performance and how we compare to other companies. We will:
    - Continue to participate in the Discover Water dashboard
    - Continue to participate in data sharing to benchmark our performance, for example with other water companies in Europe and beyond, and other utilities in the UK
- We will give additional focus to reporting against **CCWater targets**, including number of customer complaints and percentage of complaints resolved at a first stage.
- Through the actions above, we make a commitment to **year round and timely performance reporting**, keeping customers informed of any changes in performance and to engage and consult on issues. As part of this, we make a further commitment that where choices are faced over the next five years; we will engage and consult on a revised long-term ambition and updated plan. This may be important because of the cost risk where we require specific mitigation, and our proposal to cap the annual recovery of outcome incentives within customer bills. We will publish information on future bills as well as individual years, as we did this year within our Charges Assurance Statement.

We will continue the customer engagement process that we have used in developing this plan, continuing the dialogue on our performance, our future plans, and how we can increase customer participation in their water services.

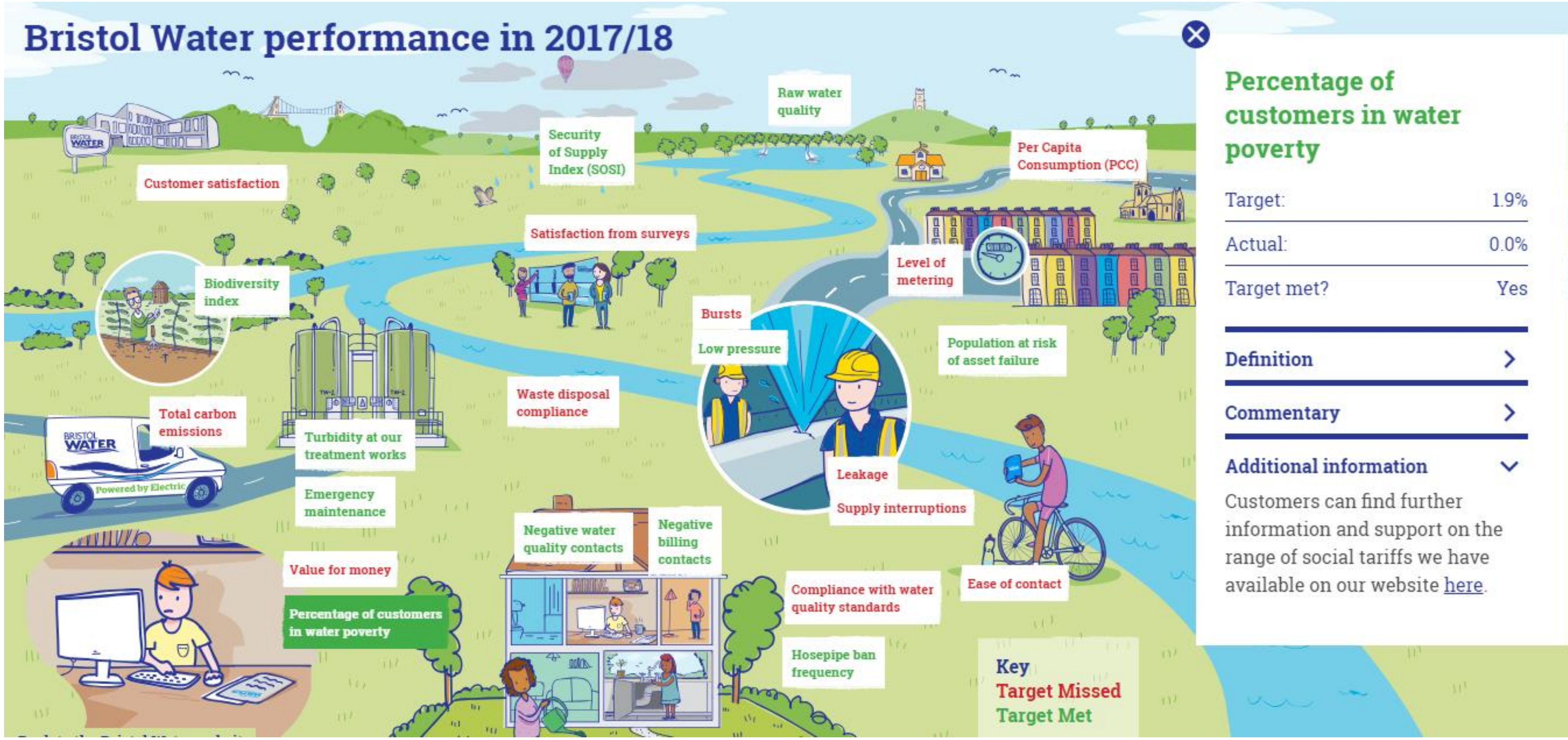


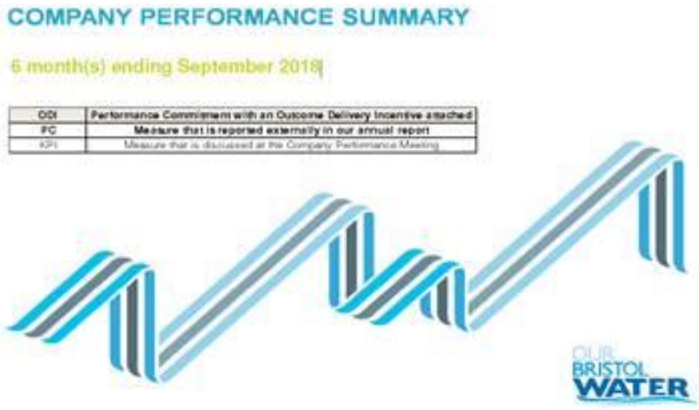
Figure 124: Our interactive annual performance web page

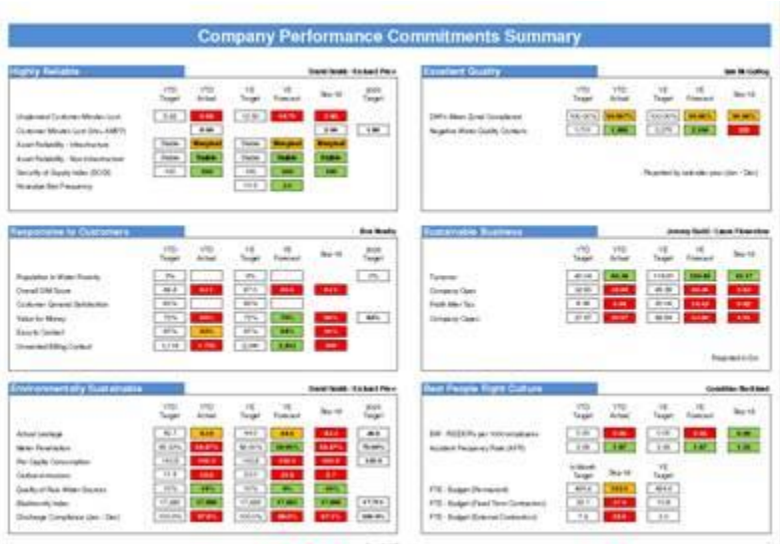
Monitoring performance and internal governance

Our approach to monitoring performance utilises our well established and mature internal reporting arrangements. We use a system of controls to make sure that the information we report on to management and publish externally is a high level of accuracy. Each target has an owner who is responsible for the delivery of that element of performance.

In terms of reporting, each data item we report on (including our performance commitments and key performance indicators) has a specific data owner and separate reviewer, responsible for production and reporting on the information internally as part of a monthly update to the Executive Management Team. A summary of how these updates are presented are given opposite. In addition, more detailed reports with a range of lead-lag indicators are reviewed by those

Data owners report on performance in each month, performance within the year to date and provide their view on a year-end forecast. This process provides the opportunity for the data owner and reviewer to identify any concerns with the quality of the data as well as reasons for underperformance (if any). These concerns are then investigated by senior managers and Directors through a series of performance meetings. Major regulatory submissions, including annual reports, tariffs, accounts and business plans are subject to Board review and approval prior to submission.





10.4 Our long-term resilience framework

Ofwat's key challenges in relation to our overall approach to resilience evidence were:

- A line of sight between the risks to resilience and package of outcomes (action BRL.LR.A1)
- Requirement for an action plan by 22 August 2019 to develop and implement a systems based approach to resilience in the round to ensure that the company can demonstrate in the future an integrated resilience framework that underpins the company's operations and future plans showing a line of sight between risks to resilience, planned mitigations, package of outcomes and corporate governance framework. BRL.LR.A2)

In addition, the IAP feedback referred to insufficient detail on our resilience maturity assessment.

In our revised **C4 document** we provide an update on our business plan submission document Bristol Water…Clearly Resilient. In this document we provide additional supporting evidence in response to the IAP feedback and actions. In particular, we provide further evidence on:

- The line of sight between our risks and outcomes
- Our resilience maturity assessment
- Systems thinking

Line of sight between risks and outcomes

In our revised **C4 document** we explain how our integrated resilience framework underpins our operations and future plans, and show a line of sight between risk to resilience, planned mitigations, package of outcomes and corporate governance framework.

This framework:

- Links our customer priorities and outcomes to our four elements of resilience; operational, service, corporate and financial.
- Applies Ofwat's resilience planning principles.
- Helps to identify and categorise resilience risks, and to ensure we consider a broad range of options to deliver best value solutions.
- Highlights the importance of innovation, transformation and continual improvement to all components of resilience.

Our Resilience Framework helps us to deliver the expectations that our customers, the government and our regulators have of us. A summary of our plans against our framework is given overleaf.

We have a good level of understanding of the interrelationships and interdependencies across the systems underpinning our service delivery. This is important to us because it helps us to understand the whole context allowing us to identify root causes of problems and opportunities. This understanding allows us to make powerful, long term and cost-effective decisions.

Our understanding of our systems includes aspects such as our obligations, financing, cost efficiency, health and risk of our infrastructure and innovation. Our influences and the factors which influence our systems also extend outside of the boundary of our company and include aspects such as climate change, water source interdependency, population growth, pollution, changing service level expectations, willingness to pay and bill affordability.

We work in partnerships with organisations such as the Environment Agency, Natural England, West Country Water Resource Group, other water companies and customer groups to help us understand threats, prioritise our focus and in some cases jointly deliver mitigating actions.

A good example of where partnership working leads to whole system thinking is the West Country Water Resources Group. Together we are considering the water supply and demand activities for the whole of the region and we are developing scenarios that will strengthen the region's resilience in relation to supply issues. The outcome will be a set of agreements detailing how we will act (under various scenarios) to ensure we continue to provide a safe and reliable supply of water not just to Bristol Water's customers but also to all customers in the south west region.

In many areas of our business, our processes and procedures mean we already have a line of sight, all the way from the range of factors that affect resilience, through our corporate risks, decision making, actions that we undertake to mitigate any negative impacts and actions to make the most of the opportunities that we see; ultimately through to outcomes which are measured by our performance commitments.

Our decision making considers a broad range of options to mitigate risks (ensuring we consider options aligned to each of the 4 R's of resilience). We understand our absolute duties and ensure that our actions satisfy such requirements. An example of this is that we proactively sample our water quality to safeguard against customers from the effect of pollution incidents should they occur. We ensure that not all mitigation is about investing in our assets, we also have improved the way that we respond and recover.

One of the key enablers of our integrated resilience framework is the maturity of our risk and planning processes through which we understand the hazards which could challenge our ambitions, assess the risk they present, develop options to address them, deliver solutions and monitor their performance to support continual improvement. By applying the risk and planning processes, we ensure a clear line of sight between the factors that influence our systems and the outcomes we aim to deliver to our customers.

Our current approach to delivering resilience in the round has two strands (see Figure 127):

- Continually improving the plans, procedures and people which are the foundation which allows us to deliver resilient services.
- Maintaining a robust approach to the identification, prioritisation and management of risks to ensure a line of sight from hazards and opportunities to outcomes.

Both of these strands are inherent to our approach to managing our assets in line with best practice procedures as outlined in ISO55001, ISO31000 and ISO9001. They are also supported and assured by our corporate governance framework. It is this package of management tools which we will enhance and formalise into an integrated resilience framework.

Our asset management maturity has a significant impact on our company resilience framework: there are many overlapping features. As outlined in Section B2 of our original business plan, we recognise that we have more to do in terms of our asset management maturity and we are implementing a framework in line with ISO 55001.

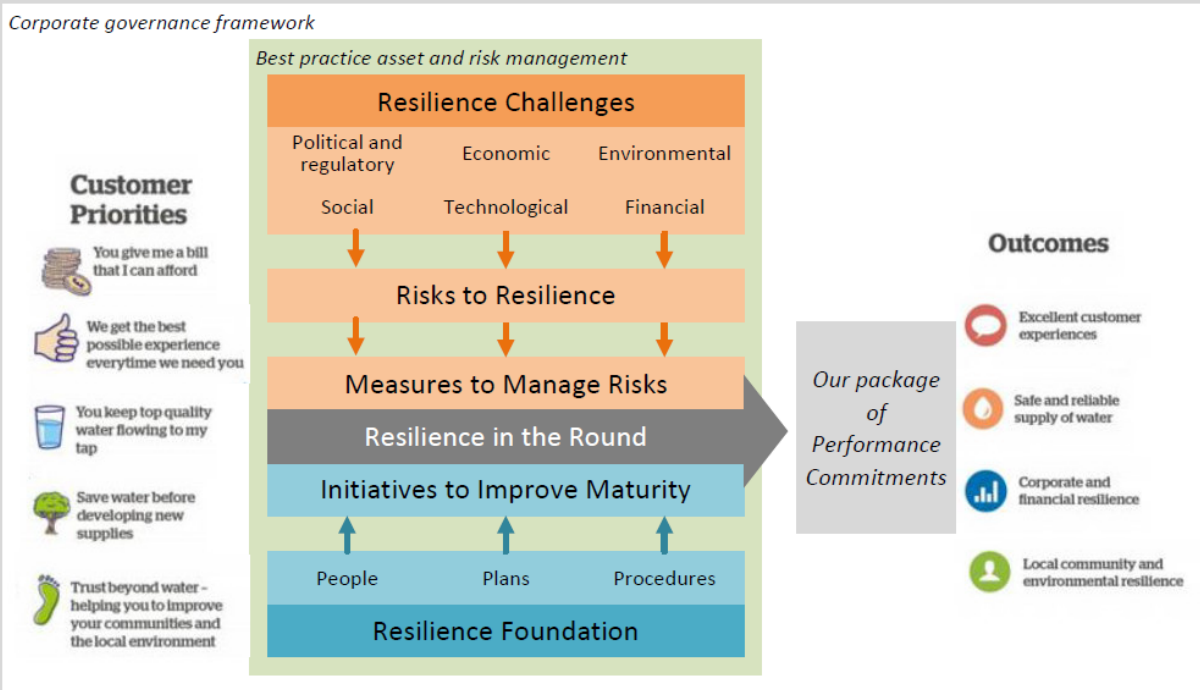


Figure 125: Measures to manage risks and initiatives to improve maturity

One of the important improvements that we intend to make during AMP7 is to improve our asset health and risk metrics. Whilst we have sophisticated approaches for measuring asset health for some of our asset groups, others require more focus and a common approach to assessment. We commit to working with others in the sector to develop robust, forward looking asset health metrics.

In our **revised C4 document** we provide further detail on our risk management process and illustrate how the stages of this process address each of Ofwat's resilience planning principles. We also map the line of sight provided by our plans, procedures and processes, from risks through to outcomes for each of our four outcomes. We recognise that there are improvements which we can make to our framework and we will include these within our future action plan by August 2019. In particular, we aim to improve our approach to the quantification of risk, before and after intervention.

A summary of how our performance commitments contribute to resilience is given in Figure 128 below.

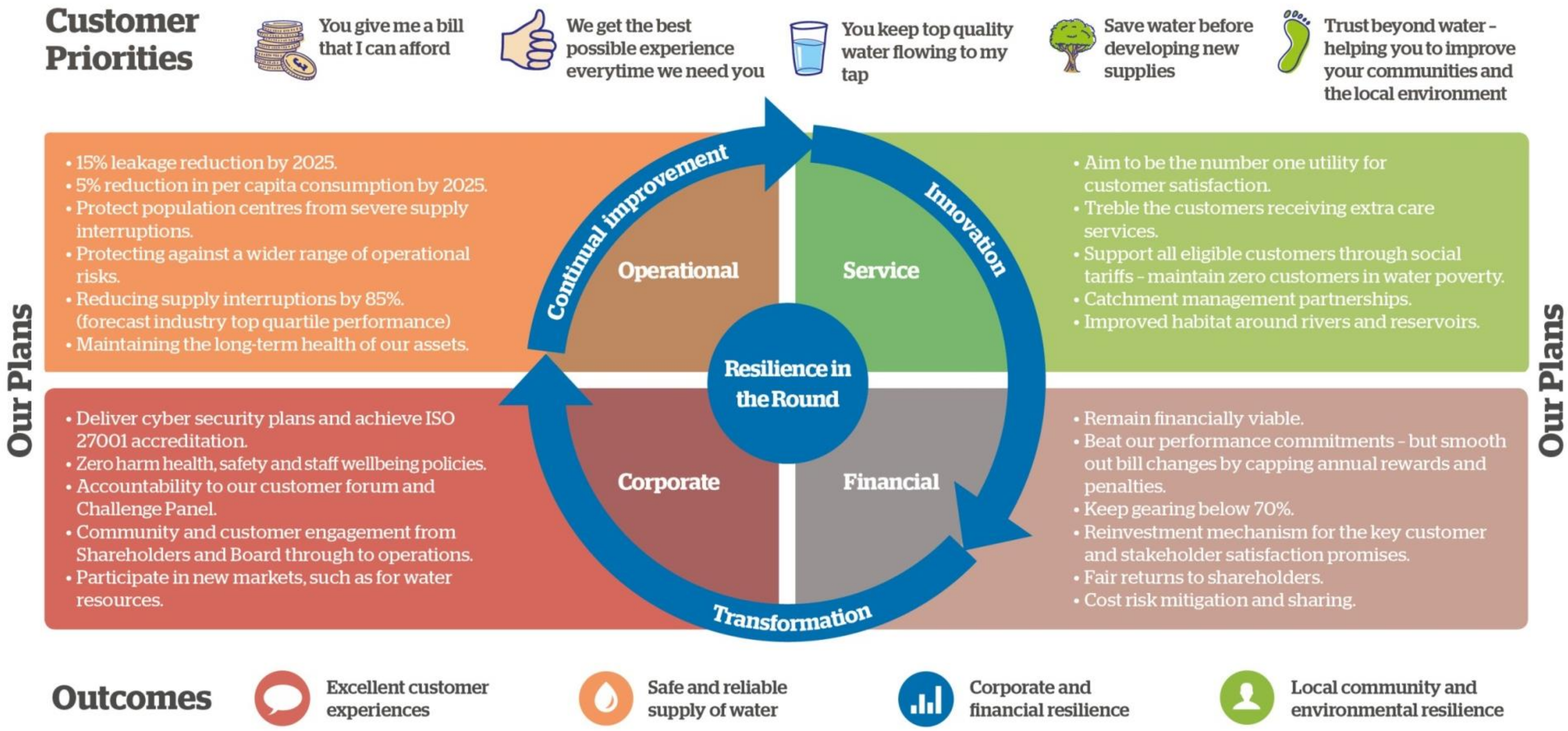


Figure 126: How our commitments contribute to resilience

Our resilience maturity assessment

Our people, procedures, systems and infrastructure mean that we are already resilient to many of the challenges we face. We know we can do more however, and we know we need to continually improve as our challenges evolve.

To understand how well the characteristics and attributes of our organisation support resilient outcomes, we have developed a self-assessment tool to grade our current performance. Against more than 100 questions, each linked to one of our four pillars of resilience, we have scored our performance on a scale from 1 (Aware) to 5 (Excellent). The figure to the right shows where we consider our resilience approach to be most developed across operational, service, corporate and financial resilience. The figure also shows where we expect to be at the end of 2025 based on our future plans.

We worked with Jacobs to apply its resilience maturity assessment, a tool which helps an organisation to understand its attitude to resilience, how it monitors resilience, and the ways in which it uses resilience data to guide decision making.

The design of the resilience maturity tool is based on the principles of effective asset management, aligned to ISO55000. It also addresses the following key research and policy on resilience:

- The 2019 price review methodology (Ofwat 2017a), by ensuring assessment questions are aligned to each of Ofwat's seven resilience planning principles.
- Resilience in the Round (Ofwat 2017b), by ensuring assessment questions address operational, corporate and financial resilience.
- The Targeted Review of Asset Health (Ofwat 2017c), by ensuring assessment questions address the observations on asset health raised in this study.

The results of the self-assessment indicate that we need to improve in some areas, such as how we use the performance of existing and past projects to optimise what we do in future. We recognise this issue and believe it reflects historical challenges in capturing data and information to align experience to our resilience goals. We have completely refreshed our vision and strategy and have developed our organisation to focus on these challenges. This focus includes making sure we learn from our experience of implementing change. Our transformation programme will improve all aspects of resilience alongside other improvements to our corporate resilience.

As our resilience self-assessment shows, we are implementing a range of improvements which develop all of our four pillars of resilience.

Figure 129 and Figure 130 illustrate how the maturity of our resilience has improved and will continue to improve as a result of our plan.

Our assessment shows that we consider our mean level of current performance to be at least Competent (a score of 3) across all of our four pillars of resilience, and against all of Ofwat's seven resilience planning principles. We consider our current financial resilience to be Optimising (mean score in excess of 4). We expect to see improvement against all aspects of resilience, to a maturity level of Optimising (a score of 4) against all of our four pillars of resilience, and all of Ofwat's seven resilience planning principles.

We have already begun to address our areas of least resilience and will continue to do this through the delivery of our business plan. For example:

- Rolling out our people plan
- Delivering improvements to our asset management maturity
- Improving our corporate risk management practices
- Delivering on our social contract
- Transforming our ways of working

In Table 7 below we summarise our resilience maturity journey and in our **revised C4 document** and **BRL.C4. TA01. Resilience Maturity Assessment** we provide a detailed mapping between our resilience principles, our resilience maturity improvement areas and our outcomes and performance commitments.

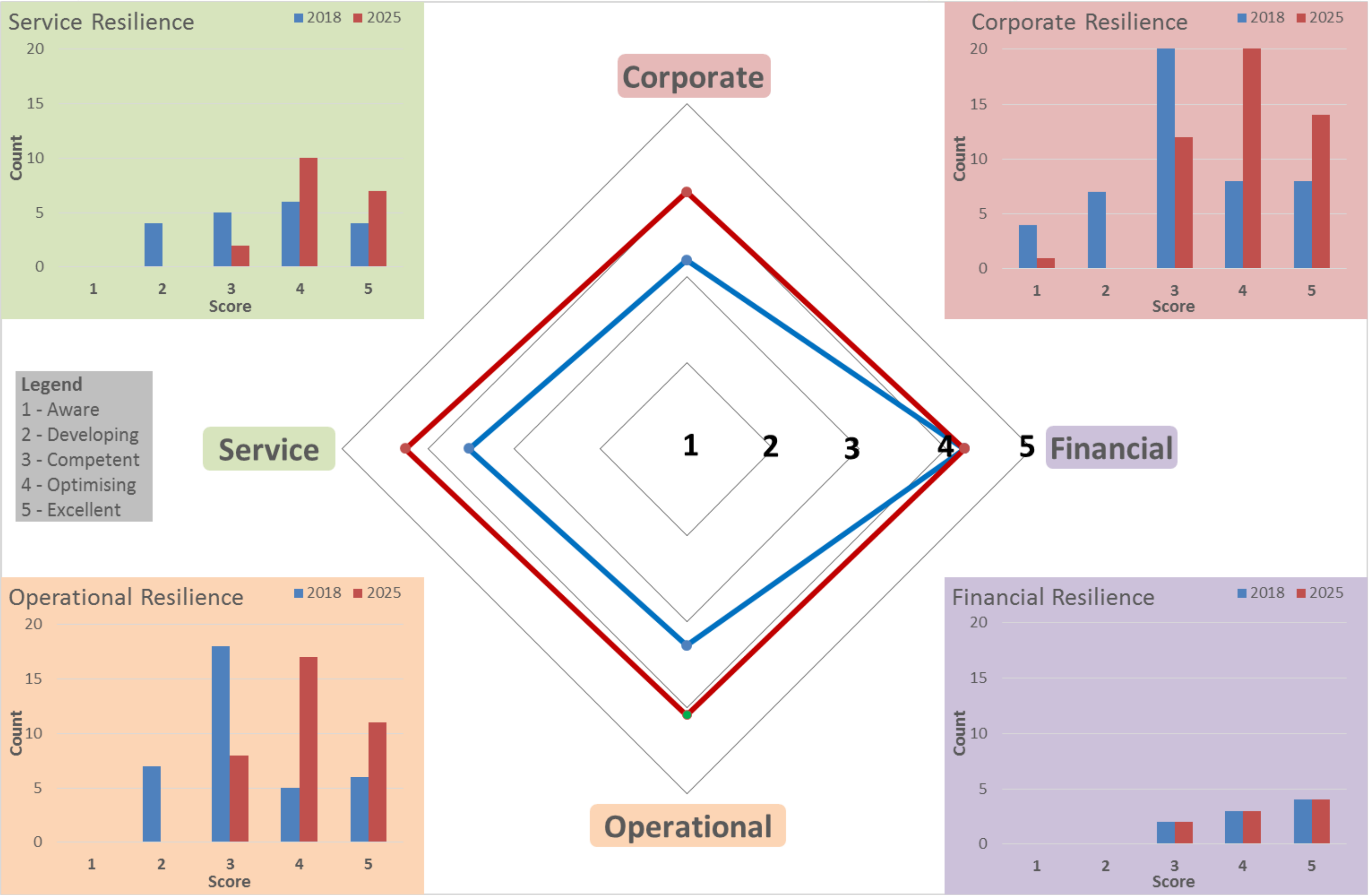


Figure 127: Summary of our maturity against our four pillars of resilience

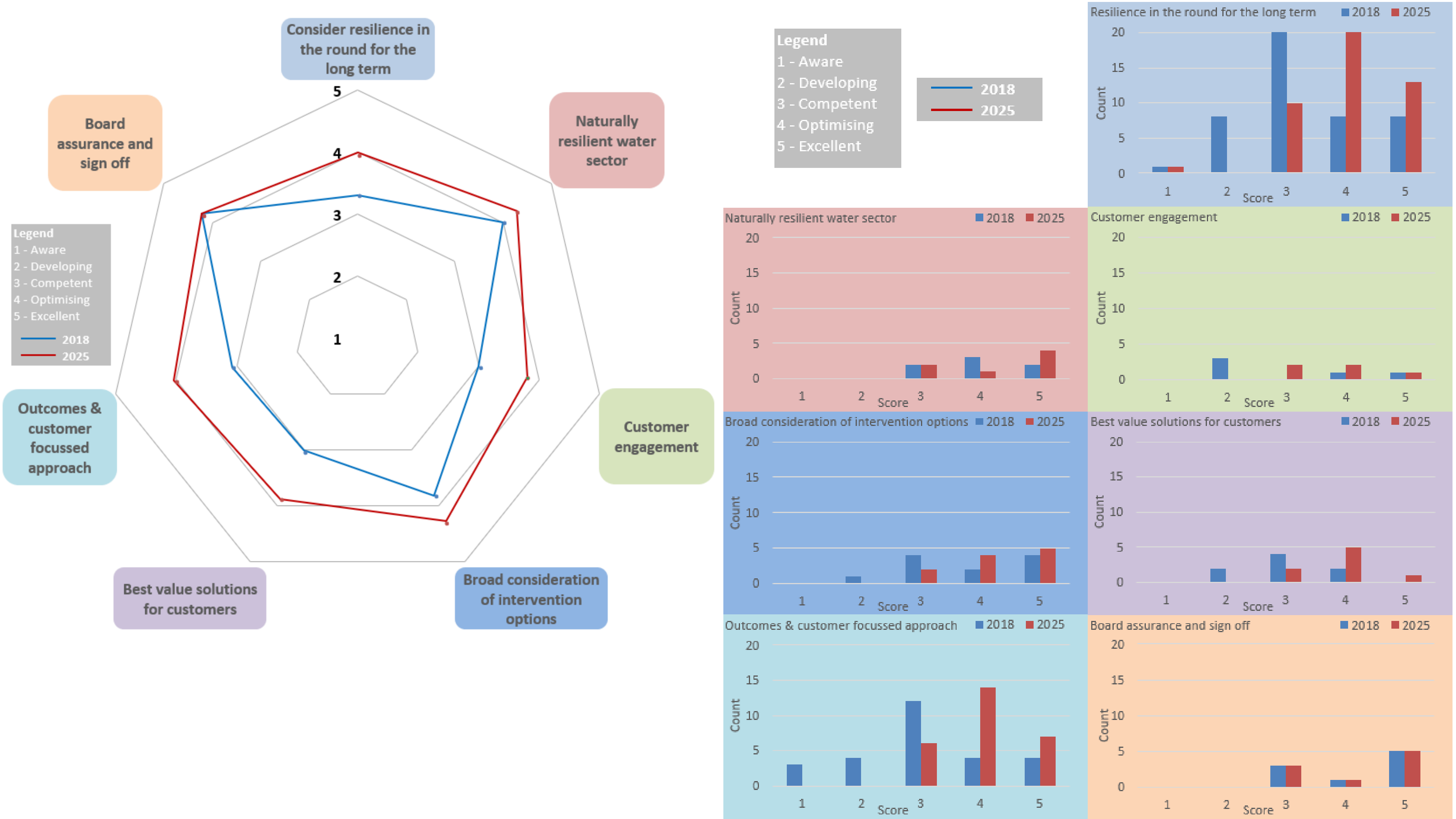


Figure 128: Summary of our maturity against Ofwat's resilience planning principles

Table 7: A resilience maturity journey

	Past	Current – our journey to date	Future – as a result of this plan
Operational	• Plan relied on age based network replacement • New reservoir proposed to deliver water resource investment • Supply chain contracts focus on cost • Track record of innovation through partnerships	• Network maintenance targeted at leakage and supply interruptions • Successfully delivered 25,000 population resilience protection • Lagging performance on leakage, supply interruptions and metering require supply chain focus on delivery • Good legal water quality and environmental track record • Innovation platform driven by staff engagement	• Water resources balance through demand management including leakage reduction and metering • Resilient assets for 10,000 population centres • Water quality risks reduced further • Supply chain focus on effective delivery with more direct employment with new competencies • The workshops – incubator for local innovators
Service	• High performance on SIM • Higher than average bills • Establish Pelican retail delivery with Wessex • Early development of social tariffs	• Most trusted utility • Top water company on UKCSI • Effective incident response and recovery from customer perspective • Zero customers in water poverty	• Excellent community and customer experiences • Aiming to be top utility on UKCSI • Focus on community as well as customer • Customer and community support for inclusive services
Corporate	• Three different investors with different priorities • Data and information quality uncertain	• Main shareholder with long-term focus • Board and leadership strengthened • Focus on customer and community for corporate governance	• Focus on community stakeholder as well as customer satisfaction • Develop our people and the business objective of Board
Financial	• Gearing above 70% • Industry efficiency outlier • Historic debt cost above larger companies	• Gearing below 65% • Efficient retail costs, and wholesale costs when considered as an integrated network • Historic debt cost has offsetting benefits and customer support • Significant water resource cost risk • Penalties from current performance in 2020-2025	• Gearing c65% • Financial ratios viable, with mitigations • Limited new financing required until after 2030 • Water resource cost risk mitigated, participating in water resource trading markets • Customer support for limiting incentives exposure

Systems thinking

Systems thinking is about taking a step back, to understand the whole context of a particular challenge with all its interrelationships and linkages. This approach helps to identify the root cause of a problem, or source of opportunity, enabling powerful, long term and cost-effective decision making.

Bristol Water operates as an organised collection of systems, arranged in hierarchies and integrated in order to deliver outcomes to our customers. Our systems also influence and interact with the natural environment, our community and external stakeholders. To ensure our systems are aligned and focussed on achieving common goals, the component parts need to continually exchange information.

We recognise the value that systems thinking can bring to our decision making and investments, and we already apply it implicitly in many of the ways we work.

Ofwat in the IAP called for an action plan to developing a systems thinking approach. We recognise that there is opportunity for the industry as a whole to mature its systems thinking as this concept develops.

Systems thinking was a key part of developing our long-term ambition and PR19 plan, and reflects an early application of our systems thinking approach. This can be seen in the "future factors" diagram and the explanation of this in Bristol Water…Clearly, as well as in the "ambition on a page" summary of our purpose, vision and mission. We summarise our approach to systems thinking as a focus on the shared connection to society that our assets, people and activities form with our communities and customers. Improving our knowledge and understanding of this shared connection, helps to improve a systems thinking approach to resilience and long term planning.

Part of the value of systems thinking is you cannot do it in isolation – you have to collaborate with others in order to deliver it. Our recent discussion document on social contracts The ICS/Bristol Water report "Social contract for Water – evolution or revolution, and the conclusions of the event with local and national stakeholders to learn from their experience are examples of this.

The discussion document identified three steps to embed the social contract ideas, which we see as a parallel for a systems thinking approach because it reflects planning for trust beyond the basics of water supply (and its regulation):

1. Embedding governance of the delivery of the social contract in to our existing governance and assurance procedures. This will ensure the social connections with our systems are maintained as a core focus in everything we do.
2. Building the shared connection to society, by enabling local communities to more easily hold us to account. This will ensure we always accurately reflect the social connections in our systems.
3. Ensuring our decision making processes always encourage us to step back and account for the longer term. In doing so our systems focus will evolve and influences and challenges change.

A forthcoming example is our innovation event on 24th April, at which our innovative "The Workshop" incubator will select, at an open event, the next entrepreneur who will help us tackle our key challenges, and grow their business at the same time.

In response to the IAP, we provide further explanation of how our system thinking approach links to our resilience maturity assessment and how we plan to develop this approach. We also provide case studies to demonstrate our existing approach. We make a commitment to develop our systems thinking and to adopt a systems based approach which stretches across our outcomes.

Case study: natural capital valuation

In AMP6, we introduced our Biodiversity Index. This approach uses a formal and audited process to measure the biodiversity significance of all the company's sites and enables the business to score, assess and quantify the importance of each site for wildlife - based on an assessment of the type, scale and condition of the habitats present at the site. By identifying and quantifying potential beneficial interventions for wildlife at each site owned and operated by the company, we are able to ensure that management of these sites does not allow for any biodiversity loss but rather promotes biodiversity value and leads to a demonstrable and quantifiable net biodiversity gain.

The Biodiversity Index approach is a significant first step on the path to a full and robust natural capital and ecosystems services approach to delivery water to its customers. We recognise that natural capital valuation is a principle in development across the UK and it will develop its natural capital approach over the AMP7 period, with the view to implementing a new natural capital approach and metric in PR24.

By taking this proactive step to measure and manage biodiversity and the benefits that biodiversity enhancement can bring, the company has driven its performance towards greater consideration of biodiversity benefit as an underlying principle in the management of all aspects of the business.

10.5 Innovation and new ways of working

The IAP feedback in relation to our use of innovation was that this was an area of high quality within our plan. The section below therefore remains unchanged from our original submission.

What innovation means to Bristol Water

Innovation is the process of doing things differently to achieve a benefit. It is more than new technology. It includes processes, procedures and, importantly, the **culture that guides everything we do**. As such, innovation is a **critical enabler** which supports all of our outcomes and promises for PR19, as demonstrated in our transformation since PR14, and our transformation programme. It also contributes to our resilience. We believe that innovation and resilience go hand in hand. Long term success depends not only on understanding risks and managing them but also pro-actively identifying cost effective solutions and opportunities.

We recognise that innovation needs to be an ongoing process, and one which can also support progressive improvement in future price reviews. That is why our innovation approach is aligned to business transformation and continual improvement, facilitated by our **Business Improvement and Innovation (BI&I)** team and our Innovation Champions engage on these topics throughout our business.

Innovation Champion role:

- Technology scout: market scanning to understand leading thinking and technologies
- Integration: promote integration of innovative thinking into business as usual processes
- Central interface: provide BI&I with a feed to the Innovation Tracker
- Knowledge Sharing: through events such as supplier presentations, lunch and learns, intranet pages, inductions, innovation events.

BI&I function:

- Facilitation: coordinate network through, for example, group sessions and cross directorate knowledge shares
- Coaching: coaching of individuals to support technical roles and professional development
- Engagement: specialist support for members such as group visits and conferences.

Bristol Water has a strong record on innovation and the steps we have already taken have helped to drive broad benefits. For example:

- The process of **ice pigging**, pumping ice slurry through pipes to remove unwanted debris, developed in partnership with Bristol University. Today, ice pigging has many applications in the water sector and is also used in other industries such as oil and gas and food manufacturing.
- Our **Refill campaign**, where we worked with partners to develop an app which engages

the community to highlight the benefits of free public access to drinking water. The campaign also supported Bristol being European Green Capital 2015.

- Our **Water Bar**, which provides access to free drinking water at community events and festivals. The Water Bar has won multiple awards and has been adopted by several other water companies.

All of these innovations are characterised by partnership working. We consider collaboration in the development of new ways of working to be a key component of our strategy (see further details overleaf).

Our culture of innovation

We foster a culture of innovation from both the top-down and bottom-up. Our Executive Team lead by overseeing our innovation framework. To complement this leadership focus, our BI&I team works to ensure our staff always have the skills, tools and support they need. This includes:

- Providing a clear steer on the importance of innovation to achieving our goals.
- Developing means to encourage innovative thinking (our **Open Innovation** approach for example, see overleaf). Our Transformation Programme then works with the BI&I team to manage opportunities for transformation.
- Ensuring our staff have the right tools and support such as:
  - Lean process optimisation training
  - Knowledge sharing
  - Team meetings and huddles with a rolling agenda on innovation.
- Monitoring our Innovation Tracker to assess the maturity of the innovations we trial. We use the Technology Readiness Levels defined by the European Commission and the Gartner Hype Cycle to ensure we explore and implement innovations in line with our evolving maturity. The performance of our innovation programme is captured in our annual Innovation Health Check.

Our **Innovation Tracker** currently captures over 180 items which cover all components of our business, from infrastructure asset management to IT and customer teams.

Each innovation in the tracker is monitored for progress in terms of readiness and deployment. The tracker also highlights innovations with an external relevance beyond Bristol Water.

Our transition to a culture of everyday innovation is demonstrated by the success of our **Brainwaves** programme. Our staff submit ideas from across the business through the platform for review by our teams. Promising ideas are rewarded and then undergo further analysis and piloting before viable innovations are implemented and monitored to ensure benefits are realised. During 2017-18, 12 ideas were successfully implemented, including the adoption of the St John's Ambulance First Aid app, introduction of LiveChat on our website and the use of Biobullets to treat Zebra Mussels at treatment works. Other examples of recent innovation include:

- Technology for near real time adaptive operation of our networks to improve resilience, leakage and incident management - from our partnership with Imperial College.
- Robotic processes to automate repetitive tasks, saving hours of manual effort.

Innovating with our partners

We recognise that partnering with diverse and specialist organisations is key to driving innovation. Our approach is to promote **Open Innovation** by openly sharing our challenges to access the collective resources of our partners.

To provide a focus for innovative thinking, we have defined Innovation Challenges based on the outcomes of our business plan and the technology needs of our specialist teams. We then engage a range of organisations including:

- Knowledge specialists such as the Technology Approval Group and British Water.
- Our supply chain.
- Research bodies and academic institutions.
- Local groups, such as in support of Smart City work with Open Bristol.

We undertake **Open Innovation** through a number of different channels:

- Market scanning activities to identify new solutions that can feed into our business-as-usual asset planning processes.

- Innovation events: Last year we partnered with British Water to run an Innovation Exchange for suppliers to pitch their solutions to our needs. We subsequently trialled a floating work platform to eliminate scaffolding, under pressure pipe inspection technology and low maintenance chlorine and turbidity monitors.
- Publishing our challenges on our website to provide a continually available avenue for engagement.
- The Workshop: a new incubator initiative to support start-up businesses in a setting that enables failure without penalty.

These platforms and processes help to reinforce our integral role in supporting local community and environmental resilience.

Innovation in our business plan

One of our most significant innovations at PR19 is in the process of developing our business plan. We invested in an iterative and progressive approach which benefits from customer engagement and feedback at every stage.

Our business plan proposals are modest in investment terms and focus on system optimisation. We got our key stakeholders together to identify how we can pursue innovations in the market to progress the industry frontier. Some of the innovations that will affect our long-term plans for PR19 and beyond include:

- Data analytics and intelligence about our customer needs will drive us to organise our data so that it links to customers, rather than properties and assets.
- Using behavioural insight into time scarcity means that self-service for some customers will help us to better target the vulnerable customer support.
- Using our data to contribute to the Bristol smart city and local growth strategies. With better data, we can reduce leakage and also promote water efficiency. We can also reduce traffic disruption by sharing data on traffic disruption and our plans for works.
- Playing a greater role in community strategies, such as in renewable energy and catchment management.

10.6 Our approach to markets

The IAP concluded that we had provide insufficient evidence to support our approach to markets.

The IAP included two actions for the Controls, Markets and Innovation test area. These were:

- BRL.CMI.A1 – providing further information on the impact of the ongoing dispute with the Canal and Rivers Trust in relation to provision of water resources.
- BRL.CMI.A2 – revision to our Bid Assessment Framework (by 15 July 2019).

In addition to responding to these actions, we also provide further information in relation to our use of markets. and in additional evidence files. We cover the following topics below:

- Alternative 3rd party options for water resources
- Evidence of applying retail market learning
- Catchment management
- Our Bid Assessment Framework
- Direct procurement for customers

Alternative third party options for water resources

Our long-term water resources strategy does not include the development of any significant new resources, with demand management playing a key role in balancing supply and demand. Nonetheless, we have been an active member of the West Country Water Resources Group, set up in 2017 to promote transparent and collaborative regional water resource planning across the West Country region and beyond. The core members of the Group are Bristol Water, South West Water (including Bournemouth Water) and Wessex Water, with the Environment Agency acting as a key partner. Additional input is provided by potential donor or recipient water companies for water trades, including Severn Trent Water, Dŵr Cymru Welsh Water, Southern Water and the Water Resources South East group. The Group also works with the National Farmers Union (NFU) to understand agricultural water resource requirements within the West Country and is developing a stakeholder engagement programme of work to understand wider water resource requirements across the region.

This collaborative approach will enable the Group to identify opportunities for the development of water transfers, resource opportunities and cross-company resource management approaches within the West Country region, promoting the best use of water resources at the regional level. The Group also provides a mechanism by which large regional trading and new resource schemes can be investigated if these become necessary or beneficial in future, as a result of (for instance) environmental changes in regional water availability or changes in cost benefit of existing water trades such as the supply from the Gloucester-Sharpness canal.

In addition to the potential for development of new resource options, collaborative working between the core companies has now extended to the formation of a new West Country Water Efficiency Group, operating with the same teams and leadership in the core businesses, to explore the potential for shared market approaches on water efficiency measures, shared messaging and collaboration on cross-boundary issues such as water use in tourist areas

Further information is provided in **BRL.C5C. TA03. West Country Water Resources Partnership.**

Evidence of applying retail market learning

Ofwat's report 'Open for business; Reviewing the first year of the business retail water market' identified three ways in which customers should benefit from the new market – money, time and water. We have actively contributed to each of these outcomes, as we summarise below.

Money – We have put in place our data improvement plan to cleanse pre-market data around long unread meters, meter digit and read frequency and vacant non household properties. We have also provided services and no cost to the retailer as to reduce the cost to serve. These services include posters on water efficiency advice, leakage, cold and hot weather and regulations advice posters which the retailer can brand. We have also provided free access to our GIS records to help the retailer resolve customer enquiries quicker.

Water – As well as providing water efficiency advice and resources, we are also piloting a scheme with a major supermarket through their retailer to promote water efficiency at their stores. We are also working with their employees to promote water saving at home.

Time – Bristol Water's Service Level Agreements (SLAs) are shorter than the Market Code SLAs. Of particular note is our use of a robot to run our settlement reports to make that process quicker and more efficient.

Ofwat has identified three market frictions:

Complete, accurate and timely data – We have a data improvement plan in place with Markek Operator Services Limited (MOSL) and have an app known as PinPoint which was developed with Wheatley Solutions to help correct poor data in the market. The tool has been nominated for a Water Industry achievement award. Currently we are also visiting all pre-market unread meters to obtain reads.

Poor aggregate performance of wholesalers against industry standards – In 2018/2019 Bristol Water's overall average Market and Operational Performance Standard percentages were 96% and 98% respectively, which are Industry leading figures. Ofwat noted in its 'Call for Inputs: Strengthening wholesaler performance and services in the business retail market' (CFI) report that Bristol Water was the best performing company.

Poor interactions between wholesalers and retailers – We were central to the founding of the Retailer Wholesaler Group (RWG) to improve those interactions and the experience of the end user/customer. We currently jointly chair this group. Again in Ofwat's CFI report the RWG was highlighted several times as a solution to the perceived poor interactions.

Spill over effects of the market to Bristol Water - There have been a number of direct and indirect benefits from the wholesale market which have positively impacted other parts of our service.

These include:

- Our Wholesale Services team are supporting the domestic customer service team in complaints handling and customer focus.
- The wider role out of employee customer service incentives from the wholesale team to the wider business to encourage teams to go that extra mile.
- The services we provide retailers have now been adapted for the New Appointments and Variations market – e.g. free GIS mapping, "in your area" event notifications, daily operational reports and water efficiency, leakage, cold and hot weather and regulations advice posters.
- The principles of stakeholder engagement and co-creation have been translated to developers and self-lay organisations through market days (modelled on the 'ready for retail' market days) and account and contract management approach.
- Our customer portal has been designed on the basis of our retailer portal due to the success of this platform.

Catchment management

Bristol Water started the Mendip Lakes Partnership in early AMP6, involving Catchment Sensitive Farming and the Environment Agency. The Partnership's work is now considered a key strategic project in the Bristol Avon Catchment Partnership Plan[14]. We are now working with Bristol Avon Rivers Trust to build a River Chew Catchment Strategy – '*Building a Case for the River Chew'* using our River Chew NEP project as a starting point. This will bring together organisations including the Area of Outstanding Natural Beauty (AONB) and unitary authorities. We are exploring how catchment management could be delivered cost effectively in partnership with a third party.

In BRL.C5C. TA01. Catchment Management, we explain how we will extend our catchment management programme during AMP7, in partnership with other organisations such as Bristol Avon Rivers Trust (BART), to deliver direct benefits for the company and customers in terms of reduced treatment costs (network+), and for the wider community in terms of ecosystems services. Monetised benefits are summarised and provided in the evidence file.

We explain how we have develop an adviser led approach rather than a reverse auction approach due to the nature of our catchments, with a small number of farmers and location specific issues – this is aligned with findings of our Fowey Payments for Ecosystems Services (PES) Pilot. Many of our farms are small dairy and beef farms on which uptake of information technology is less rapid than on some of the larger arable farms and estates found in the Poole Harbour catchment, where Wessex Water have successfully trialled EnTrade, and we have had to work hard to encourage applications to our Grant Scheme.

Working with the Environment Agency we developed the concept of our role as the Primary Catchment Contact in our safeguard zones – the Environment Agency issued letters to all the relevant farms explaining that Bristol Water and the Mendip Lakes Partnership should be the first port of call for advice on reducing their pollution risk. Our adviser-led approach has allowed us to develop valuable relationships with many of the farmers in our catchments.

The development of the partnership working model within our social contract means we are also exploring with Wessex Water and South West Water whether a regional planning approach to catchment management would align with water efficiency and water resources work through West Country Water Resources.

We have established a partnership with Bristol Green Capital Partnership, a Community Interest Company with over 850 organisations as members in Bristol who are also exploring the water, food and energy nexus in Bristol, which

[14] Accessible at https://www.wessexwater.co.uk/environment/catchment-partnerships/bristol-avon-catchment-partnership

provides a framework for further catchment management initiatives in the future.

Case Study: Sustainable water use

In partnership with the University of West England, Bristol Water has been awarded a research grant to contribute to the global research project SUNEX (Sustainable Urban food-water-energy NEXus).

The study aims to develop efficient solutions for shared issues around energy, water and food supply services in urban regions.

The research programme will provide a modelling framework to assess the food-water-energy system of an urban environment. The framework will be demonstrated in four case study city regions (Bristol, Berlin, Doha and Vienna) and will provide policy guidelines for different physical and climatic framework conditions and consumption patterns.

Through this research, we will learn more about how our water supply services can support the other resources that sustain community resilience. We can also contribute to the resilience of urban environments around the world.


Berlin


Bristol


Doha


Vienna

Case Study: Resource West

We recognise that a coordinated approach is the best way to tackle pressures associated with the increased use of resources such as water and energy. In late 2017 we held a workshop with local and national stakeholders with an interest in working together to promote resource efficiency. We agreed to:

- Work with Wessex Water to understand our combined environmental impact and to consider joint messages on resource efficiency in our bills.
- Combine energy and water efficiency messages by partnering with local energy suppliers.
- Work with the Local Enterprise Partnership and WECA to link resource efficiency into regional economic, energy and industrial strategies.
- Encourage the formation of an active network between all utilities in the West of England, to share best practice on engagement and to build joint campaigns on resource efficiency.
- Work with local partners to promote efficient water consumption by creating the messages and incentives to drive more efficient behaviour.

ResourceWest
Sharing knowledge. Taking action. Cutting waste.

Our Bid Assessment Framework

We are committed to using our Bid Assessment Framework to facilitate the use of the market to deliver our ambitious PCC and leakage targets. As part of this commitment, we published our BAF ahead of our business plan submission to allow us to seek feedback from stakeholders.

In the response to the IAP, we have undertaken a best practice peer review of company BAFs and have carefully reviewed Ofwat's IAP feedback and BAF Information Notice.

We will update our BAF and publish it on our website, together with our updated Water Resource Management Plan and Market Information by 15 July 2019.

Direct procurement for customers

The nature of our investment (fully integrated in existing operations with no separable investment project above £3m totex) means that we have not proposed to use Direct Procurement for Customers (DPC) within our plan. As part of our assessment we have considered and discounted the option to aggregate packages of schemes. The potential for major schemes for water trading export remains the most likely area for DPC in the future, and we will work as part of West Country Water Resources to explore this potential.

11 Cost and efficiency

It continues to be our view that our continued transformation will deliver £52m of new cost efficiencies by 2025 (around 9%), with c80% delivered from 2020. We have considered the wider evidence on future labour cost and industry frontier efficiency. This results in a further 0.8% p.a. base wholesale and retail totex efficiency from 2020 (a revised total of £65m), which offsets other changes (such as tax) that would otherwise increase bills from our original proposals.

Our plan is focussed on operating cost and maintenance expenditure, rather than major new enhancements. Transformation of how we work (supported by innovation and new technology), underpins our proposals. Our plan is fully integrated and transformational, combining a single view of our customers' needs (rather than just focussing on asset or property information), with a real understanding through our people and from our systems of how we deliver excellent services and product.

In this chapter we provide a summary of our plans to deliver each outcome.

Additional third party reports that support our analysis are:

- **BRL.TR03 A Review of Ofwat's PR19 Approach to Estimating Frontier Shift**
- **BRL.TR05 Top-down vs Botto Benchmarking**
- **BRL.TR06 Cost Driver Forecasts**
- **BRL.TR07 Frontier Shift, RPE and Output Growth at PR19**

11.1 Summary of changes to our plan

The total cost of delivering our plan for 2020-25 is now £494m (this is 5% below expenditure in the period 2015-20), compared to £503m in our original business plan. We have carefully considered Ofwat's actions and IAP cost efficiency assessment and believe our revised plan reflects the industry upper quartile of efficiency.

The main cost and efficiency changes we have made since our original business plan are:

- We have Increased 2020/21 metering capex by c. £1.1m, to reflect the catch up spend associated with our revised forecast achieving 64% rather than 65.9% meter penetration by 2020. This reflects a small retiming of investment and is more than offset from a customer perspective of additional efficiencies delivered in the remainder of 2015-20 since the original plan was submitted, which reduces totex by £3.8m, after the timing difference on meter optants and selective metering with changes in the housing market and additional expenditure on leakage infrastructure maintenance.
- We have reduced our assumption of leakage enhancement opex by £1.8m. This follows IAP policy of only allowing an element of capex beyond the upper quartile of leakage. However, we have based the capex enhancement allowance at industry average allowances rather than our lower ODI rate, as the lower ODI rate included expenditure for base as well as enhancement improvement in leakage. For efficient enhancement costs, we believe it will be more consistent to use the industry average.
- Ofwat clarified in a query that mains diversion costs and related grants and contributions should be reflected in the price controls. This increases costs by £0.575m p.a., but has no impact on net totex or efficiency.
- We have incorporated costs associated with the Traffic management act permit schemes. This was a known cost risk in our plan as we anticipated that permit schemes could also be introduced in our area of supply. Following plan submission the Government is now asking West Country Councils to adopt lane rental schemes by 2020. We provide compelling evidence that this cost risk has therefore now crystallised. Based on the rate Ofwat allowed for other companies, we calculate the annual cost that may be allowed is £0.662m, which is below the range (£0.8m to £1.1m) for cost risk we had estimated.
- The Government announced a ban on metaldehyde in October 2018, and therefore we have removed the c£0.015m annual cost of subsidising the alternative product to farmers' under our catchment management scheme.
- Ofwat's IAP removed SEMD from enhancement, on the basis that the expenditure was too small to review. We have reviewed our cost allocation of this expenditure further, and demonstrate that the

enhancement expenditure in our original plan should have been £0.6m rather than £0.1m. We have therefore reallocated this expenditure from base (£0.5m) and provide compelling evidence in **BRL.C5C.TA06. SEMD Security Enhancement Investment.**

- Despite challenging our approach to catchment management in the IAP actions, the IAP removed the enhancement expenditure that related to catchment management, despite this being on the NEP and with EA and NE support. We believe this probably arises from the assumption about which line of table WS2 related to different regulator's enhancement schemes, which for catchment management we have support from multiple regulators. We resolve this in the revised plan by changing the lines on the business plan table WS2 (with no financial impact). There is one scheme that relates to multiple (and non-WINEP enhancements) rather than individual WINEP lines, as it reflects regulatory support for the investment continuing for strategic biodiversity action plans as well as long term WFD and raw water quality benefits. We present compelling evidence as to why Ofwat should include this expenditure in the PR19 determinations, and why our approach to catchment management is leading edge, considering how successful it has been in avoiding "hard solutions" in the area we supply already. Test area LR2 also comments how a wide range of options had been considered to mitigate resilience risks, including hard and soft infrastructure options. This is evident from the recent outperformance on the "raw water quality" performance commitment, and the contribution this has made to the continuing trials at Cheddar Treatment Works, rather than implementing the full solution that we have an undertaking from the DWI to implement. We provide further evidence in **BRL.C5C. TA01. Catchment Management.**

- We have not amended our plan on our >10,000 population at risk resilience metric. We provide compelling evidence as to why this expenditure reflects resilience (low probability/high consequence) risk reduction that customers support, rather than achieving an upper quartile level of supply interruptions. As our plan exceeds the upper quartile anyway (not through this enhancement investment), and customers are protected by an ODI (recognise in the IAP as high quality), we have maintained the resilience enhancement investment in our plan. We provide further evidence in **BRL.C5C. TA02. Resilience Enhancement Investment.**

- We have removed the element of relative price effects (above CPIH) for abstraction charges and business rates from our business plan, based on the evidence in other company plans and in Ofwat's IAP. To be consistent, we adjusted this net of the efficiency we had assumed on these RPEs. Therefore we follow Ofwat IAP assumptions and reduce abstraction charges by c£0.2m and business rates by c.£2m over 2020-25.

- On future cost changes for totex, we have revised our assumptions against industry consensus on RPEs and frontier shift. We had applied c0.7% p.a. from 2020 in our original plan, but in reviewing our labour cost assumptions and industry frontier assumptions we have now included a further c0.8% p.a. from 2020 from our revised plan.

The cost of the revised plan is higher than the £448.6m included in the Ofwat IAP baseline. We summarise in Figure 131 the main challenges in the IAP baseline that resulted in a c£65m difference between the Ofwat IAP baseline and our original plan.

As described above, we have adjusted our plan for Canal and River Trust and leakage enhancement, and provide evidence on catchment management and resilience as to why these are efficient enhancement costs. We have also applied an additional 0.8% p.a. frontier shift.

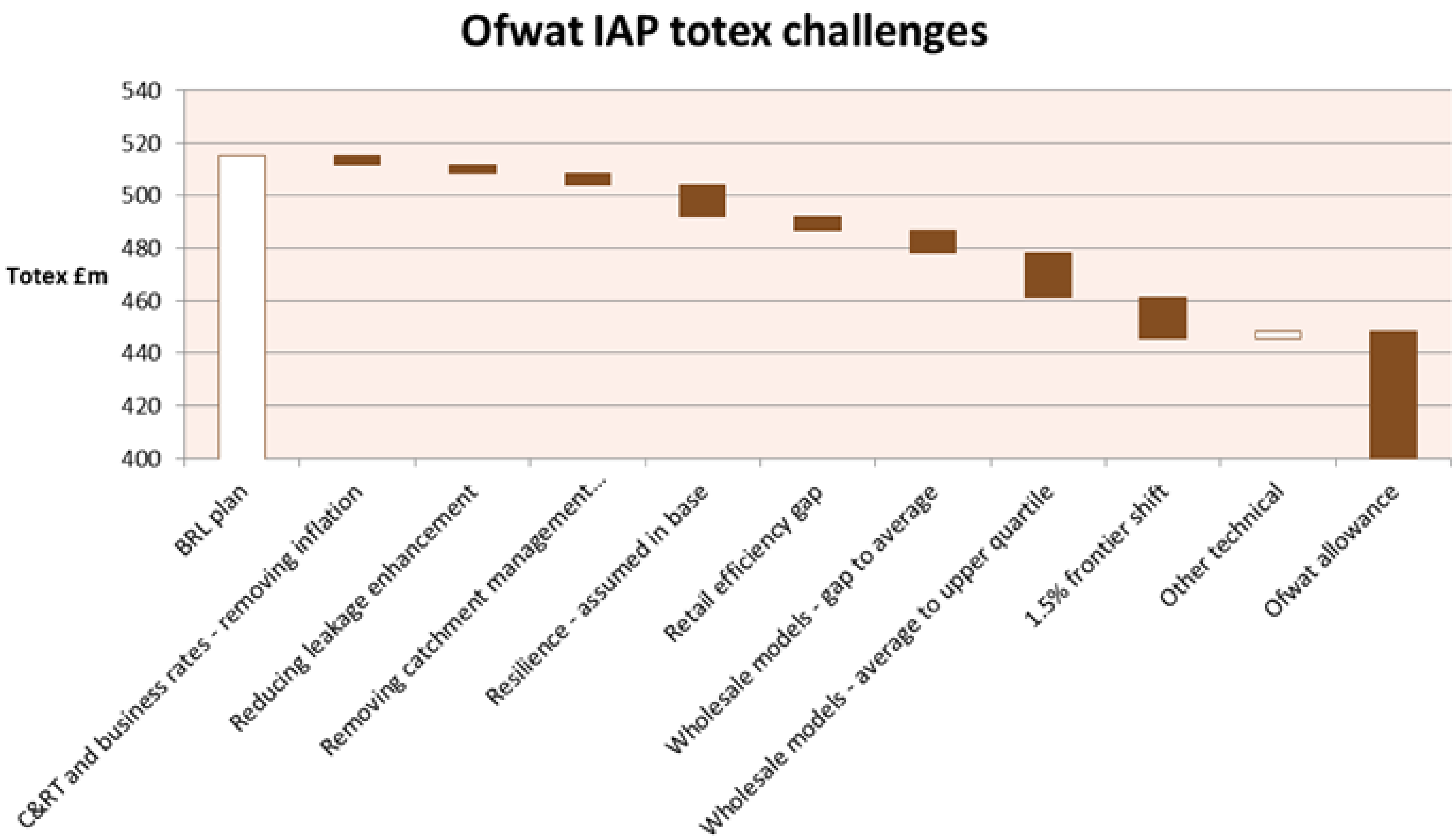


Figure 129: Factors influencing the cost of our plan

For the other IAP totex challenges we take a case by case approach in considering our response:

- We set out evidence for where adjustment to the treatment of costs in the IAP baseline was required to fully reflect the intended IAP policy.
- Ofwat acknowledged in a query that £0.5m wholesale network plus abstraction charges had been deducted rather than added on to the IAP allowance.
- The policy to treat the cost of the water supply payments to the Canal & River Trust as unmodelled costs in the same way as abstraction charges was not implemented correctly. Only the abstraction charges paid via C&RT rather than the water supply payments. This increases the totex allowance by £8.9m.
- In our view the Bristol Water forecasts of property numbers in wholesale and metered numbers of customers in retail should be used to set cost allowances. This increases the totex allowance by c£8.6m. Particularly for retail (£1.7m of the total), the approach of not reflecting the planned increase in metering within the costs assumed in forward looking efficiency modelling does not appear to be logical.

We do not adopt the general outcome of the IAP efficiency models where there is no business efficiency plan that would allow us to do so. Equally, we have reviewed carefully why there may be a difference, and it depends on a number of technical assumptions, which we have reviewed with consultancy support. In the timeframe possible since the IAP, and with the need for Board scrutiny before changing plan proposals, particularly given the important plan delivery and financial resilience questions raised by Ofwat, we have not completed our analysis of the models and suggest an on-going dialogue with Ofwat before draft determinations. Our observations are that we cannot attribute a significant element of the IAP efficiency model gap to inefficiency (historic or forecast) at this stage:

- The Ofwat RPE assumptions and totex frontier shift are not supported by evidence sufficient for them to reflect a central assumption for industry cost changes. We reviewed these assumptions carefully, with support from NERA and First Economics. Both challenge the work undertaken by Europe Economics and KPMG that informed Ofwat's assumptions.
- There is a significant difference between the top down and bottom up wholesale efficiency models for Bristol Water, which requires further exploration. NERA identify that given the top down and bottom up models contain almost identical explanatory driver variables, it is difficult to identify why this should be the case. Although we do not present further information on our "water treatment complexity" and "network age and materials" cost adjustment claims, we have retained the information in the business plan tables as there may be a link. NERA however suggest, with precedence from other sectors, ways in which this structural difference in the models (which we have not been able to fully explore in the time available) may be taken into account.
- A similar pattern exists in the retail models. NERA conclude that the models appear to be a poor fit and Bristol Water appears to be particularly inefficient on the bottom up bad debt models, and where the "average bill" variable has been included. This may not control for WOC and dual/single service customers well, and this is an area which will require further exploration.

We have considered our own bottom up cost assumptions and taken an additional future cost / efficiency challenge based on the evidence we do believe is robust. Our view is that there is the potential for these model changes to result in our revised plan of £494m being at or beyond an upper quartile level of efficiency, as we shown in Figure 133.

The c£20 m additional IAP model totex allowance for Bristol Water using the top down efficiency models compared to the 50:50 weighting between top down and bottom up models is of particular note, and we will continue to work with NERA to explore this further and to understand what in the efficiency modelling approach is driving this impact.

For wholesale, Ofwat should note that we are not necessarily challenging the models themselves. What we wish to explore further is more likely to be the application of them, and whether this should be amended from the initial IAP 50:50 weighting. One solution with precedent in other sectors with similar model approaches to those used by Ofwat at PR19 is to include the position that has a higher cost allowance for each company, before setting the relative efficiency challenge (e.g. to upper quartile).

The context for the Bristol Water consideration of the IAP is driven from the difference between our plan cost and the IAP Ofwat allowance was c13%, around the industry average. But this was in the context of a significant challenge to the industry costs as a whole, including through the 1.5% frontier shift assumptions, and no RPE assumptions including for retail, see Figure 134).

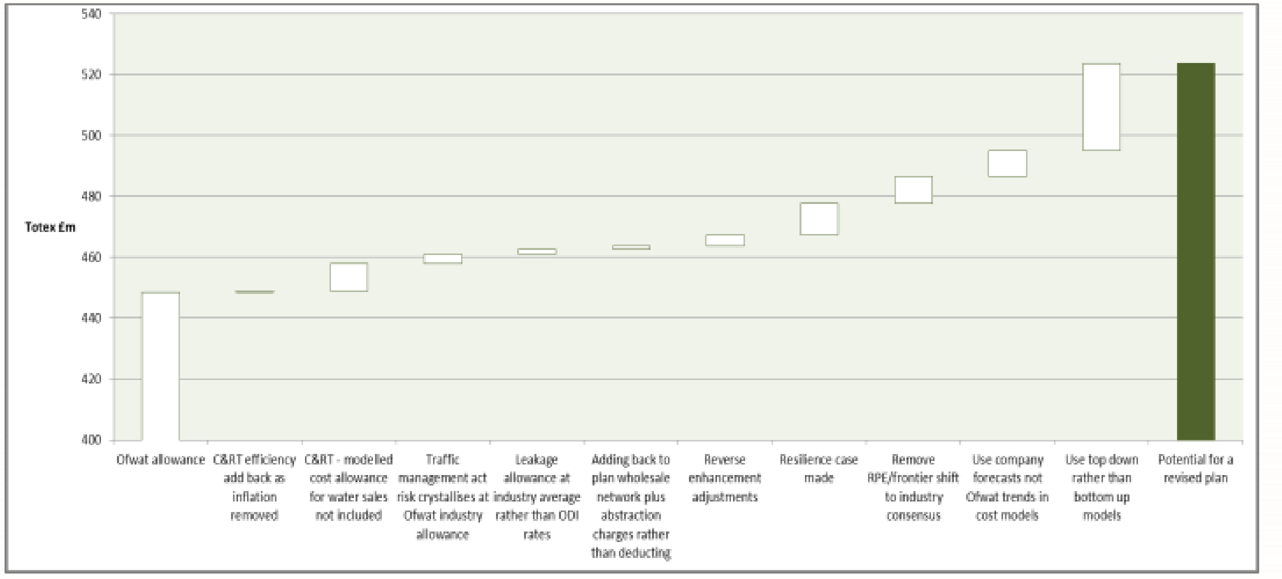


Figure 131: Potential for final upper quartile assumption to be higher than our revised plan

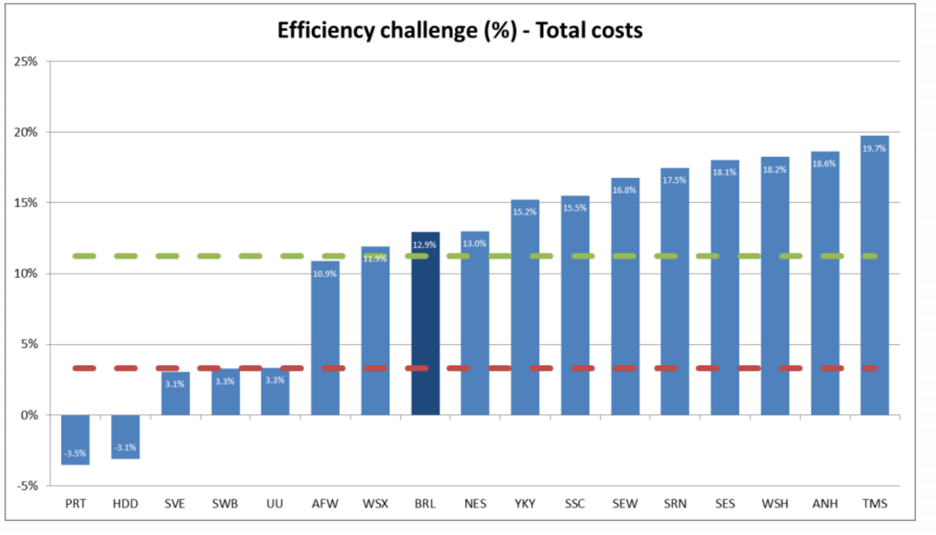


Figure 132: Efficiency challenge by company

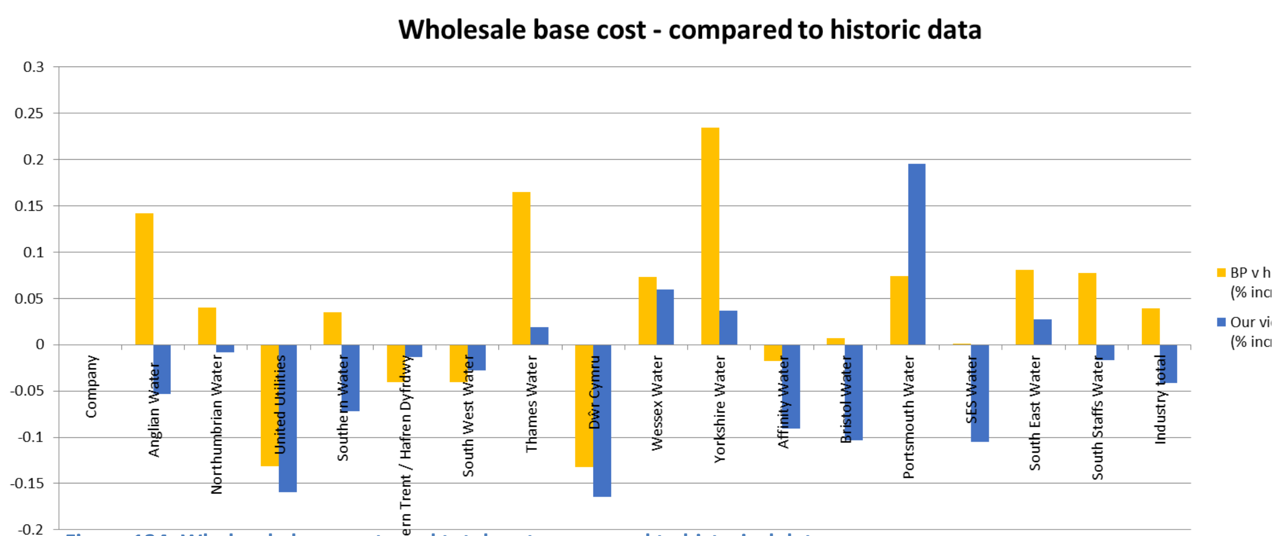


Figure 134: Wholesale base costs and total costs compared to historical data

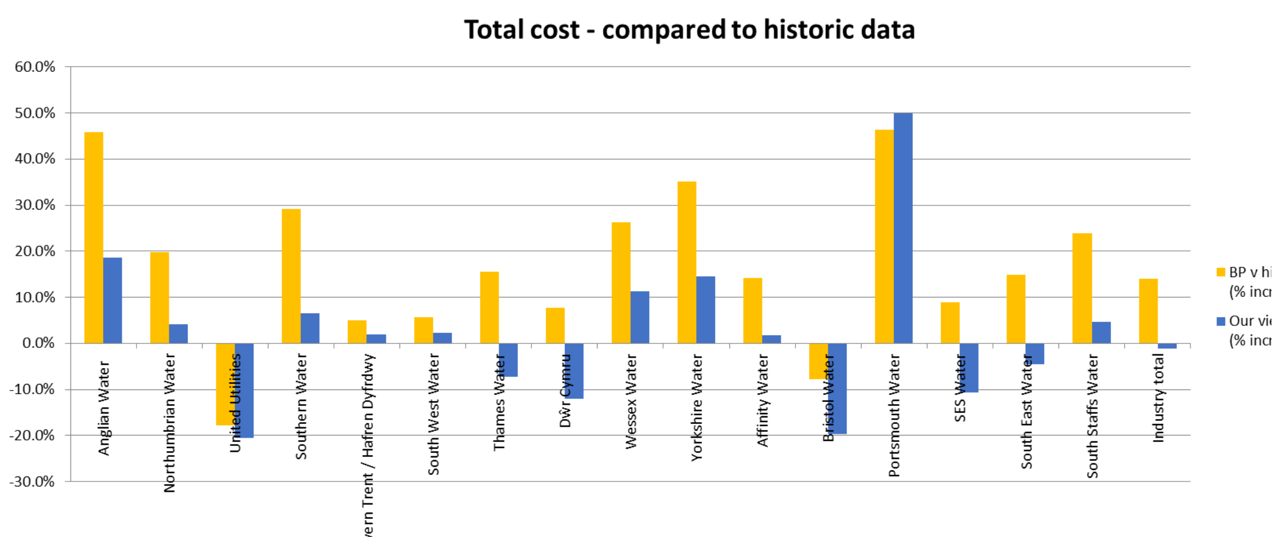


Figure 133: Wholesale base costs and total costs compared to historical data

Our plan was in itself stretching, as can be seen through the Ofwat data comparing plan and the IAP allowances to historic costs. This suggests that the plan was stretching compared to most others, and on total cost, the IAP showed a significant reduction beyond the level of all other companies other than United Utilities (Figure 134). The relatively low proportion (and 50% of historic levels) of enhancement expenditure in the plan may have an impact on delivering the totex/outcome additional efficiencies Ofwat have imposed on the industry as a whole, which in part may reflect the significant level of enhancement spend in other companies. The model structure issue in wholesale seems to particularly benefit Portsmouth Water, who see a large increase in base as well as enhancement costs.

On retail (Figure 135), the poor model fit may be caused by the significant reductions that some companies are forecasting compared to their current costs, particularly for bad debt. NERA suggest that this challenge to these efficiency models requires much more exploration than we have been able to complete in time for the IAP response, with a wide swing in model outputs (in particular for Yorkshire Water who set the frontier).

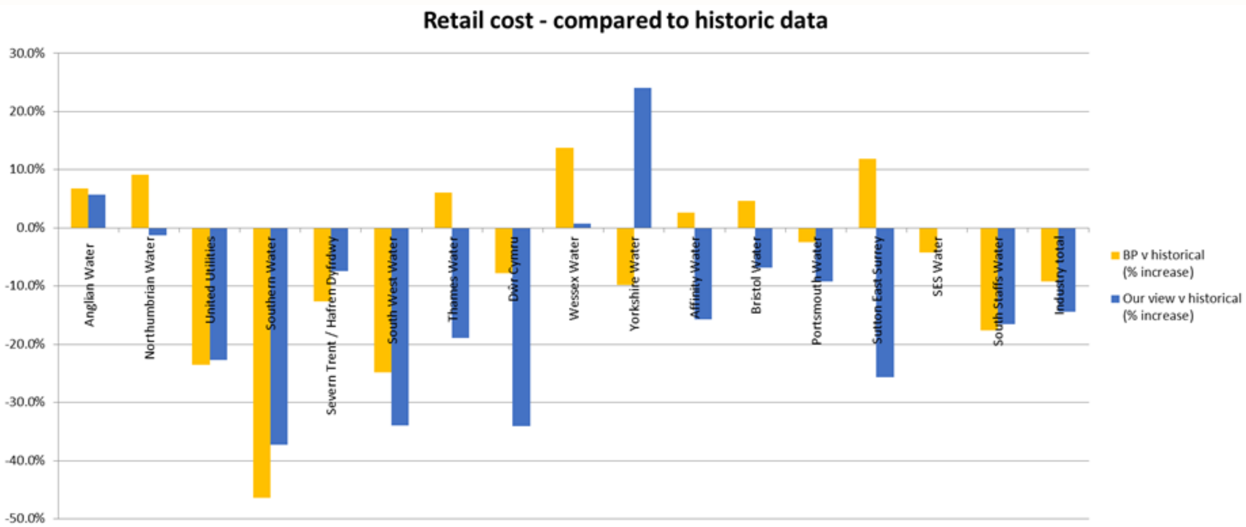


Figure 135: Retail costs compared to historical data

In response to the specific observations made by Ofwat in the test area assessments on cost and efficiency:

- The test area assessment challenged the resilience investment on the grounds that it "appears to relate more to improving supply interruptions. Given that the company is not forecasting to achieve a very high level of performance in this area (i.e. its forecast performance is below the "upper quartile" level of performance), we consider these costs are covered in the base allowance". This contradicts other areas of the IAP, which recognise:
    - In OC1: that the supply interruptions performance proposed was beyond the upper quartile, with the policy decision then to set it at the upper quartile
    - The LR2 resilience test and elsewhere considers the benefits of the resilience metric and the incentives for delivery that the enhancement in this brings.
    - The investment does not relate to normal supply interruptions, instead being 24 hour interruptions which generally do not occur on any scale in most years (the peaks in 2015 and 2018 being caused by exceptional events such as the Willsbridge burst).
- We are challenging the modelling on retail bad debt costs as the results appear counter-intuitive, although we have not concluded on this definitively at this stage.
- Subject to adjusting the base cost allowance to reflect the cost correctly, the Canal and River Trust cost adjustment claim is no longer required. The regional wage claim is not required based on the IAP modelling. The other two claims we do not present new evidence – however we have left the evidence unaltered in the revised plan/tables as it may support our exploration of the structural challenges NERA have identified in the wholesale totex models. We prefer to address this through considering the application of the models, rather than further debate on the cost adjustment claims at this stage, having accepted Ofwat's IAP view that the wholesale models to an extent now consider these claims. NERA have provided us with analysis that explores the degree to which this is the case.

11.2 Our investment plans

Our plan is focussed on operating cost and maintenance expenditure. The expenditure is a smooth level of investment each year, which is an efficient way of delivering our investments and emphasises that even the enhancement expenditure is mostly "maintenance-like" in our delivery approach. We describe key areas of expenditure in this chapter, however these do not deliver our performance commitments in isolation as operational and service changes are just as important.

Key areas of expenditure are shown below.

Water resources infrastructure maintenance (£3m, 0.7% of totex)

The most significant activity is reservoir safety inspections – £1.2m.

Water network plus IRE expenditure (£59m, 12% of totex)

Other than trunk and distribution mains planned refurbishment and replacement, key areas are:

- Customer stop taps and pipes - £10m
- Changes to hydrants to reduce the length of supply interruptions - £3m
- Leakage control and pressure - £4m

Non-infrastructure maintenance costs (MNI)

These costs increase to reflect the timing of expenditure at our pumping stations and treatment works. MNI also delivers more network monitoring technology and IT integration to deliver field force and supply chain information – essential for new services, vulnerable customer support ambitions and a single view of customer rather than just asset impacts. Expenditure for high level pumps at Purton and water quality maintenance at Banwell contribute to this increase.

The key **water resources** MNI expenditure (£10m, 2% of totex) is on:

- Major raw water pump replacements - £3m
- Improving reservoir amenity - £2m
- Water resource plan actions - £2m

Network plus maintenance (MNI) costs (£61m, 12% of totex)

Other than day to day works and equipment maintenance, the key areas of expenditure are:

- Replacing customer meters - £4m
- Stowey ozone plant replacement - £3m
- Banwell membrane and UV plant - £4m
- Network monitors and pressure logger - £4m
- Purton High Lift Pumps - £4m
- Crypto membrane plant refurbishments - £2m
- Integrated applications – API enables us to connect data across systems to delivery partners (e.g. water efficiency platform) - £4m

Enhancement capital expenditure (£46m, 9% of totex)

The amount of enhancement capital expenditure falls from £79m in 2015-20 to £45m in 2020-25. Major enhancements are:

- Water resource – abstraction and WINEP programme - £7m
- Optional and selective metering -£9m
- SEMD (infrastructure security) - £0.5m
- 10,000 population centre resilience - £12m
- New developments (net of developer contributions) - £14m

The DWI quality programme:

Key components are:

- Alderley TW plumbosolvency - £0.5m
- Cheddar TW algal bloom trial extension -£0.5m
- Lead pipe – nurseries and quality - £0.5m
- Catchment management – metaldehyde -£1m

The enhancement programme reflects current efficient costs and has been benchmarked externally. Detail is provided for each investment case in Section C5. The resilience investment is the only "optional" enhancement component that is service driven. This is reflected in a specific outcome incentive as set out in our revised **C3 document**. The metering programme is also cost beneficial and is reflected in its own outcome incentive. The DWI quality programme is reflected in the CRI outcome incentive. The WINEP programme has its own incentive, with the innovative *raw water quality* and *Biodiversity Index* targets going beyond legal compliance and includes non-WINEP or DWI catchment management.

On enhancement we have changed our leakage expenditure to reflect the industry average cost above the upper quartile. This is £1.8m lower than in our business plan, which we have taken as a base efficiency challenge. The SEMD spend has been clarified as being enhancement in our revised plan. We provide evidence that our water resource and catchment management enhancement expenditure is all supported by our regulators and should be include as enhancement expenditure. We have removed c£0.1m from metaldehyde as we no longer need to subsidise the alternative product cost to farmers as the Government has banned metaldehyde use since our plan was submitted.

Delivering long-term asset health

The main bulk of wholesale expenditure delivers on-going asset health. We plan to replace or renovate around 20km of our mains each year, which is c0.3% of our network.

In the detailed evidence supporting our plan we demonstrate that this level of network replacement is appropriate for the long-term, and remains sufficient to deliver stable network asset health, as well as our supply interruptions, leakage and mains burst planned performance improvements. This is below the level of additional mains we restored over 2012-2015, which amounted to c1% of our network p.a.

Our recent experience suggests that this level of replacement represented a backlog of expenditure which is not required in the future to deliver the targets we have set. We have checked our approach based on benchmarking against water companies in the UK and around Europe.

This benchmarking suggests we have the oldest average age of network in Europe (see our revised **C5 document** for details), reflecting the history of the company, but we are also upper quartile on network cost efficiency and leakage performance. We are confident therefore that our proposed network expenditure is both efficient and effective. We have identified 8% efficiencies for all capital expenditure, and will also absorb 0.9% p.a. of above CPIH inflation (1.7% p.a. capital maintenance) cost pressures, offsetting these through future efficiencies.

Therefore, infrastructure renewals capital expenditure is broadly stable at £62m in AMP6 and AMP7. This is in part due to additional one off expenditure due to the exceptional weather in 2017 and early 2018, but also reflects our efficiency target, and reallocation of leakage expenditure to operating cost as our 12% reduction in 2015-20 is completed (which is a regulatory presentation as the IAS accounting treatment is the same).

Figure 136: Trunk main at Rowberrow

Expenditure and priorities

The table on the right provides a summary of total expenditure. Around 60% of our investment programme relates directly to specific performance commitments and priorities. The remainder of the investment relates to asset health and maintenance. The DWI investment programme for instance is linked to legal water quality obligations and is considered in our Compliance Risk Index penalty only ODI.

Retail capital investment falls, as half of our billing system and customer journey investment has been accelerated into 2019. These costs are delivered through Pelican and therefore are shared with Wessex, although investment is also included to meet the specific needs of our customers.

Most investments link to multiple priorities, but the diagram opposite demonstrates how the major areas of our investment plan contribute to performance commitments and customer priorities, where there is a direct relationship. Customer experience measures do not directly require new investment.

		AMP6	AMP 7 - Appointee - Actual Spend						CMA AMP6
Price Base 17/18 CPIH post efficiency	Unit	2015-20	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25	2015-20
Wholesale Opex	£m	**264.7**	54.1	53.7	53.7	53.8	54.0	**269.3**	**259.8**
Maintaining asset capability ~ infra	£m	**61.3**	12.6	12.6	12.6	12.4	11.8	**62.0**	**57.9**
Maintaining asset capability ~ non-infra	£m	**63.8**	14.0	14.0	13.9	14.3	15.2	**71.2**	**64.2**
Enhancement Capex	£m	**98.1**	14.1	12.2	12.6	12.1	12.0	**63.0**	**130.3**
Grants and Contributions	£m	**(20.0)**	(3.3)	(3.3)	(3.3)	(3.4)	(3.5)	**(16.8)**	**(30.8)**
Wholesale Totex	£m	**467.8**	**91.4**	**89.3**	**89.5**	**89.1**	**89.6**	**448.8**	**481.5**
Retail Opex	£m	**51.0**	8.6	8.6	8.6	8.6	8.5	**43.0**	**52.0**
Retail Capex	£m	**2.4**	1.2	0.2	0.2	0.2	0.2	**1.9**	**2.8**
Totex	£m	**521.2**	**101.1**	**98.1**	**98.3**	**97.9**	**98.3**	**493.7**	**536.4**
Opex	£m	**315.7**	**62.6**	**62.4**	**62.4**	**62.4**	**62.6**	**312.3**	**311.9**
Capex	£m	**205.5**	**38.5**	**35.7**	**35.9**	**35.5**	**35.7**	**181.4**	**224.5**

Figure137: Summary of total expenditure

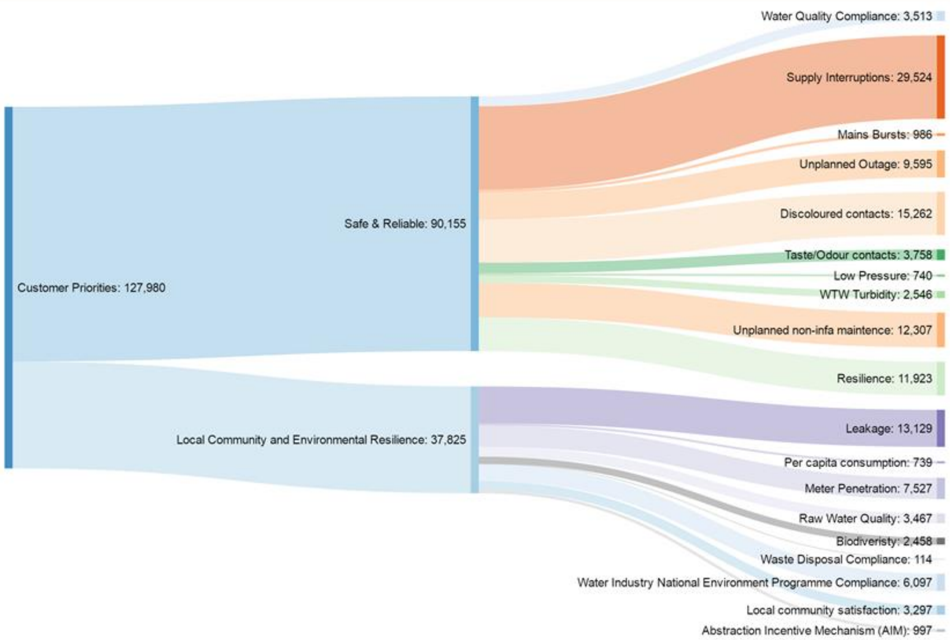


Figure 138: Sankey diagram showing how areas of our plan contribute to performance commitments – totex £m

In the heat map below, we illustrate the level of contribution from each key element of our transformation programme to the achievement of customer priorities and promises.

Transformation									
Customer priorities	Customer promises	Production	Network	Customer 360 view	Knowledge & Asset Management	Supply Chain	Systems	People	Transformation Function
We give you a bill which you can afford	Lower bills for customers - affordable for all	H	H	L	M	M	L		M
You get the best possible experience every time you need us	Achieving customer excellence	L	H	H	L	H	H	H	H
	Inclusive services that meets customers individual needs, especially when they are most vulnerable. Aiming for zero water poverty		M	H	M	M	H	M	M
Saving water before developing new supplies	15% leakage reduction	H	H	H	H	H	H	M	H
	Metering and water efficiency promotion and support		H	H	M	H	H	M	M
Trust beyond water – helping you to improve your communities and the local environment	Accountable to the community partners we work with for the wellbeing of society – 'Bristol Water For All'		H	H		M	H	H	L
	Building biodiversity and protecting our environment	H	M		H	L			L
Keeping top quality water flowing to your tap	Improving water quality (including contacts for discolouration and taste)	H	H	H	H	M	H	L	M
	Reducing supply interruptions to 1.8 minutes per customer (our forecast of industry top quartile)	M	H	H	H	H	H	M	
	Resilience – boosting protection for population centres of more than 10,000	H	H		H	L			L

	High contribution
	Medium contribution
	Low contribution

11.3 The cost of our plan

We have delivered a step change reduction in the cost of our operations since 2015. In the first part of this chapter above, we described how we will deliver further reductions in the cost to deliver alongside improvements to the service levels we provide.

In the second half of this chapter we describe our costs and efficiencies in more detail, including the evidence of our current efficiency position. We approached the development of the costs for our plans in two ways. We looked “top-down” at the industry evidence for our efficiency position relative to others. We also looked at external forecasts of both input price pressures, and how the industry frontier of efficiency may change in the future. We used a mixture of specialist advisors and internal challenge and review of our delivery plans. For our revised plan, we have revisited our assumptions on future cost changes compared to others and have assumed an additional 0.8% p.a. reduction in our proposed wholesale “botex” and retail costs from 2020. 50% of this reflects a lower assumption on future labour cost inflation, and the other 50% reflects an assumption on the frontier shift for the industry as a whole. We have also made other technical changes having reviewed Ofwat’s IAP, including the policy on leakage costs, and the modelling approach to abstraction charges and business rates. These reduce costs compared to our business plan.

We also considered cost needs and efficiency “bottom-up”. This considered the business need for investment and the source of the information used, including internal and external validation, to forecast the cost of the investment activities that make up our plan. Operating costs include the whole life cost benefit of the investment programme, plus detailed review of our potential to make further efficiencies.

Our approach to transformation informed the judgements the Board considered for the efficiency assumptions we made, both the top-down estimates of our efficiency position and our bottom-up estimates of what the individual investments and initiative costings were expected to deliver.

We considered our actual costs against what the efficiency models available to us appeared to suggest in developing our cost adjustment claims. We have updated the claims since our early submission, but only for further work that we clarified we were undertaking to ensure the claims were consistent with the final assumptions in our evidence, and 2017-18 actual expenditure information. For the revised plan we have deleted our “regional wage” claim as this is confirmed as not being in the modelling. We have left the information on our other claims within the plan data tables, as we need to have further discussions on how these are applied through the IAP cost allowances and efficiency models. We present no new information on these claims, as we believe the potential efficiency gap may be resolved through review of the application of the modelling approach, rather than requiring further analysis of special factors.

For wholesale capex our plan absorbs all of our forecast input price pressure above CPIH, through a 0.9% p.a. frontier shift as well as a 9% initial cost reduction. For wholesale botex we apply a further 0.8% reduction in our forecast input price pressure and frontier shift assumptions. For residential retail, we include a 6% initial efficiency targeted at reducing bad debt and c1.2% p.a. frontier shift, after input price pressure of c1.6% p.a. Overall, the net cost decrease is c0.4% p.a., effectively a frontier shift of 2.0% p.a. when compared to CPIH inflation. For wholesale opex cost, input price pressure of 1.4% above CPIH is offset by a 1.1% p.a. frontier shift of efficiency, as well as a 3% initial efficiency reduction. We have focused on how efficiency can be delivered for the start of 2020-25.

This reduces bills quicker than not assuming any efficiency reduction to our current costs before 2020, although this then reduces our forecast of the scale of efficiencies that are likely to be achievable over the remainder of 2020-25. We explain that we believe these cost changes are deliverable, and are as a minimum consistent with efficient costs for the industry as a whole, when taking account of service levels and performance, such as Ofwat did in the IAP with the leakage enhancement adjustment.

Our plan reflects the cost of delivering service improvements and fairly reflects the cost of the resources needed to deliver resilient services. Our efficiency assumptions also reflects that there are no major one-off capital interventions in our plan, as we have completed the most significant component of our resilience investment and our Water Resource Management Plan can be delivered through demand management and leakage reduction. The transformation programme means we assume cost reduction at the start of AMP7, rather than a higher frontier shift efficiency assumption.

Through our continued transformation we have challenged our current and likely future costs and have identified £52m of new cost efficiencies by 2025 (around 9%), assuming that around 80% are delivered from 2020. In total we forecast £65m of new cost efficiencies by 2025 (around 12%), taking into account further frontier shift and cost absorptions into account.

Table 8: Efficiencies in our plan

Efficiencies - original plan	Initial efficiency from 2020	Efficiency p.a. after 2020	Overall per annum 2020-25 "efficiency shift"	£m efficiencies	Annual real price effects above CPIH (except retail)
Wholesale water opex	-3.2%	-0.7%	-1.2%	£22m	1.4%
Wholesale water capex	-8.8%	-0.9%	-2.5%	£26m	0.5%
Residential retail opex	-6.6%	-0.4%	-1.6%	£4m	2.0%
Residential retail capex	-0.3%	-0.3%	-0.3%	£0.02m	0.7%
Efficiencies - revised plan	**Initial efficiency from 2020**	**Efficiency p.a. after 2020**	**Overall per annum 2020-25 "efficiency shift"**	**£m efficiencies**	**Annual real price effects above CPIH (except retail)**
Wholesale water opex	-3.6%	-1.1%	-1.6%	£31m	1.4%
Wholesale water capex	-9.2%	-1.3%	-2.9%	£27m	0.5%
Residential retail opex	-7.4%	-1.2%	-2.4%	£6m	2.0%
Residential retail capex	-0.3%	-1.1%	-0.3%	£0.02m	0.7%

Summary of cost changes compared to 2017/18

Figure 140 explains our overall cost movements for wholesale water (excluding £3m principal use recharges between wholesale and retail). The total of £272m compares to £279m in our original plan.

Infrastructure maintenance is broadly stable at £62m, which reflects the efficiencies net of leakage accounting transfer. Non-infrastructure maintenance increases from £64m to £71m, reflecting maintenance needs and the systems investment required to deliver our customer outcomes. IT investment is c£11m of this total.

Retail costs reduce slightly to c.£45m, with input price pressure (with no indexation) of £4m offset by bad debt efficiencies of £2m and other efficiencies of £3m. Retail capex of £2m reflects ongoing costs (e.g. for vehicles) of £0.2m p.a. together with the completion of the investment in a new billing system with Pelican in 2020-21 of c£1m.

Wholesale opex cost changes	Total 2020-25 original	Total 2020-25 revised	Comment
2017/18 base operating costs	£266.2m	£266.2m	Based on the £53m expenditure in 2017-18
Impact of investment plan	£0.2m	£0.2m	Little net change from new investments including whole life cost. Ongoing operating cost of new schemes from some enhancements offset by others that reduce costs
Accounting transfer for 2015-20 leakage	£3.5m	£3.5m	Active leakage control to meet 12% reduction in 2015-20 becomes opex from 2020
New connections	£3.0m	£3.0m	Wholesale cost of serving new properties over 2017–25, which includes cost of more staff needed to respond to customer enquiries, and cost of production
Traffic management permit schemes	£0.0m	£3.3m	Cost risk crystallises from 2020 following Government instruction to local authorities
Business retail costs	£3.5m	£3.5m	Transfer of developer services costs and overheads from business retail following retail exit
Input price pressure	£25m	£23m	1.4% p.a. above CPIH compared to 1.8% above in original plan
Efficiencies	(£22m)	(£31m)	1.6% p.a. average in revised plan compared to 1.2% p.a. in original plan
Total	**£279m**	**£272m**	(Total includes c £3m recharges to retail)

Figure 140: Summary of wholesale operating cost changes

12 Affordability, financeability and balance of risk and return

Through the hard choices we have made, our plan strikes a balance between an affordable and stretching plan supported by customers with a plan which is financeable and provides fair returns to shareholders.

12.1 Introduction

This section sets out the key changes that we have made in response to the IAP relating to the balance of risk and return, financeability and affordability of our proposals. Further detail is provided in our **revised C6 document**.

Our revised plan continues to strike a balance between fair returns to shareholders, an affordable plan supported by customers, with challenging and stretching cost and outcome incentives.

The IAP did not challenge our fundamental approach. The IAP recognised that there was a robust, balanced and proportionate evidence base, with a clear line of sight to the outcomes we were proposing. We address the cost challenge to our plan in our revised Section C5. We have revised our approach to outcomes in light of Ofwat's challenges and present the evidence in our revised **C3 document**. Both of these changes are then reflected in the RORE, affordability and financeability assessment updated in this section of the plan.

Ofwat challenged our application of the RCV run off, in terms of the evidence for the starting level and for affordability testing 2025-2030 bill profiles. We present the evidence on RCV run off. We have also considered our approach to CPIH transition further and tested the longer term bill profiles.

12.2 Changes to allowed revenue

The changes in allowed revenue in comparison to the original plan are shown in Figure 141:

- Changes in capital allowances announced in the Autumn 2018 budget result in increased tax allowances of c.£1.9m
- Mains diversions income and cost were not included in our original plan, which adds £2.9m of revenue
- Changes in spend, such as from the traffic management act add to revenues, as do the small adjustments in RCV run off, as part of transition and bill smoothing. These are more than offset by the 0.8% p.a. wholesale base totex and retail lower RPEs / additional frontier shift included in our revised plan. We have reflected this in our PAYG ratios using the same approach as our original business plan, reflecting Ofwat's IAP view that this was based on sufficient and convincing evidence.

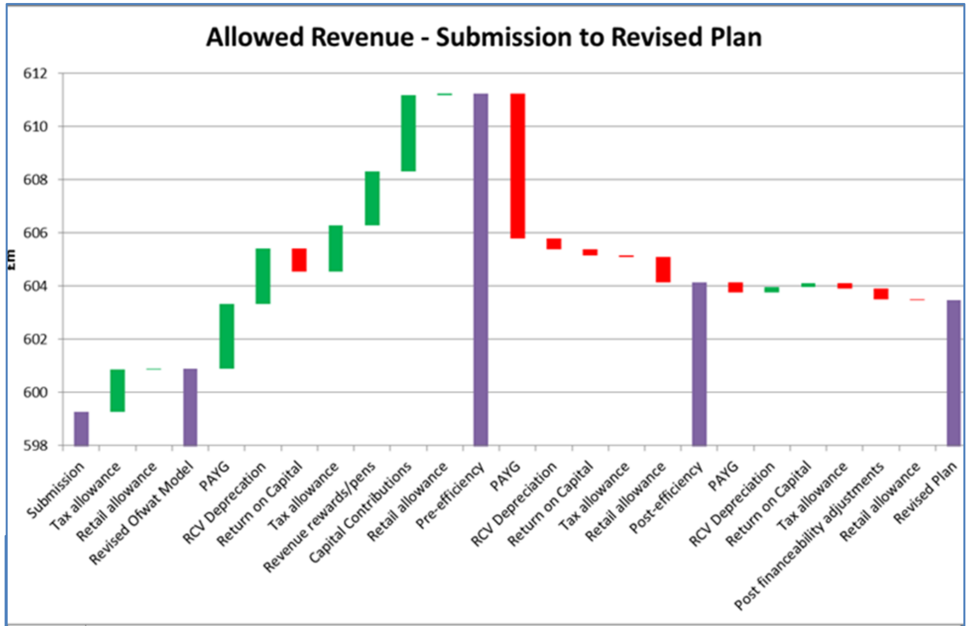


Figure 141: Allowed revenue changes between our original submission, the impact of additional efficiency assumptions and the revised submission after bill profile smoothing

12.3 Affordability

The impact of the changes is marginal in terms of the balance of customer bills (c£2), but we have increased our transition adjusted RCV run off rates, increasing them by 0.2% in 2020-25 and reducing by 0.2% in 2025-30 to reflect both a revised approach to transition, and customer preferences for a smooth bill profile.

Our revised plan therefore has a slightly smoother bill profile, see Figure 142.

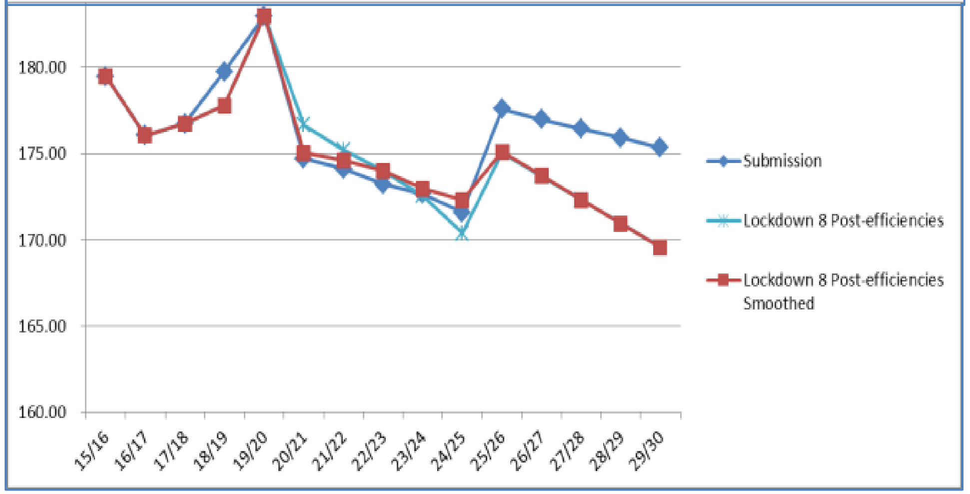


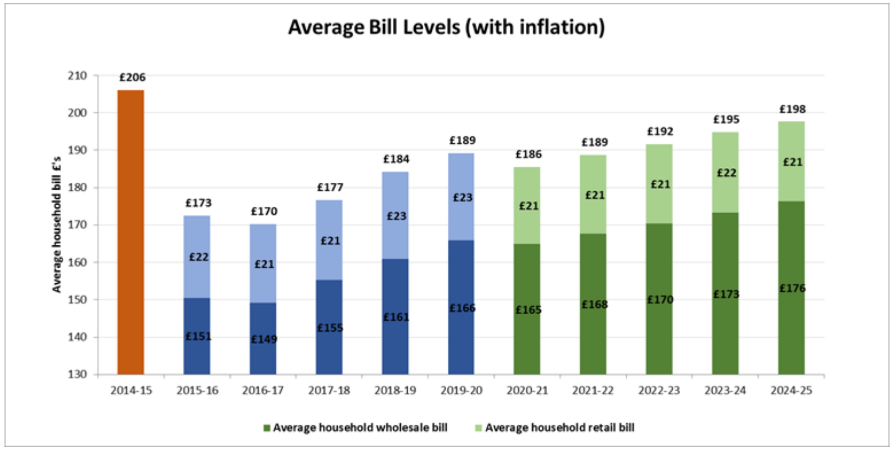
Figure 142: Bill profile comparison between original submission profile and impact of our revised plan (Lockdown 8)

Average household bills are forecast to reduce by c.4% in 2020 from £182 to £175 (CPIH 2017/18 prices), which would be 5% prior to taking into account the early pass back of £1.1m of leakage penalties in 2019-20. By 2025, bills at £172 are 5% below 2019-20 levels before inflation (6.5% before the early leakage penalty return). Bills at the start of 2025-2030 are then expected to increase by c2% (without considering any bill smoothing) due to the ending of revenue adjustments from AMP6 over 2020-25. Broadly, bills are expected to stay stable over 2020-2030 after the initial reduction.

The bill profile and the approach to financing helps to avoid a repeat of the recent above RPI bill increases that have followed the initial reduction of bills that occurred following the PR14 one-off price cut. Our evidence suggests that this has affected meeting our ‘value for money’ performance commitment in 2015-20 and so we are keen to see annual below CPIH bill changes in 2020-25, rather than to engineer a bigger initial price cut. Financial risk as well means this is not in customers’ long-term interests.

Bills at the start of 2025-2030 are then expected to increase by c2% (after considering bill smoothing for our revised plan) due to the ending of revenue adjustments from AMP6 over 2020-25. With relatively minor changes in between, bills in 2030 are likely to be lower to those in 2020, before CPIH inflation.

With inflation, bills are as shown in Figure 145. By 2025, average household bills stay £8 below the level they were in 2015. Building on our current level of zero customers appearing to be in water poverty, with customer support for an increase in the number of customers on our social tariffs (subject to testing customer support again as the need arises), we believe that our plan is affordable for current and future customers.



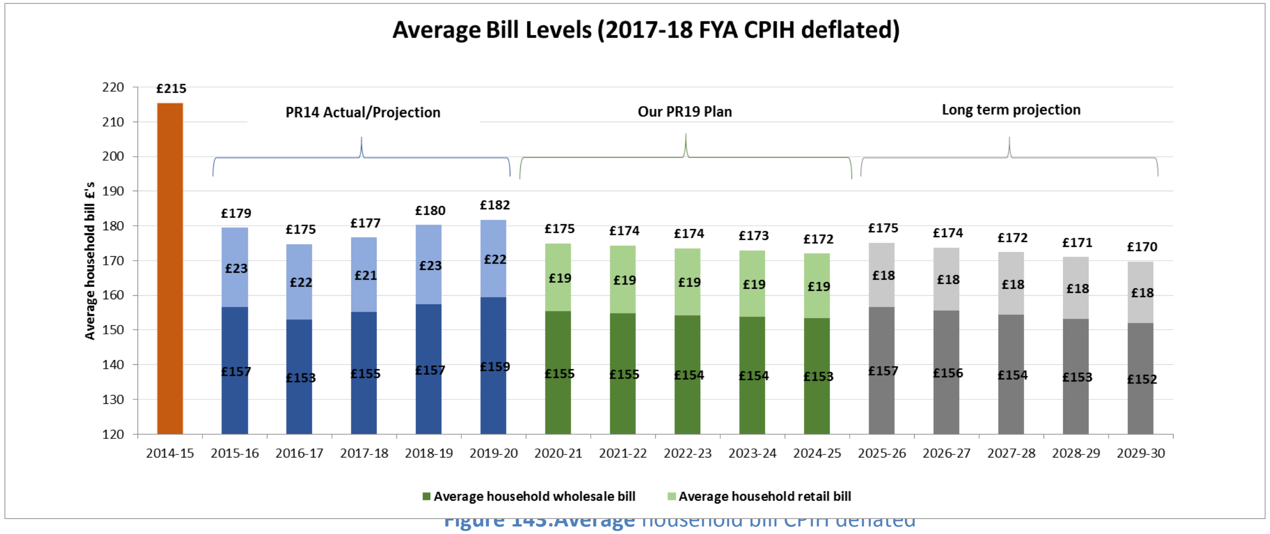


Figure 143:Average household bill CPIH deflated

Revised plan acceptability

Our adjusted plan achieved 93% customer acceptability (see Figure 146), using the same approach we undertook for our original plan, in line with the 93% achieved for the original plan.

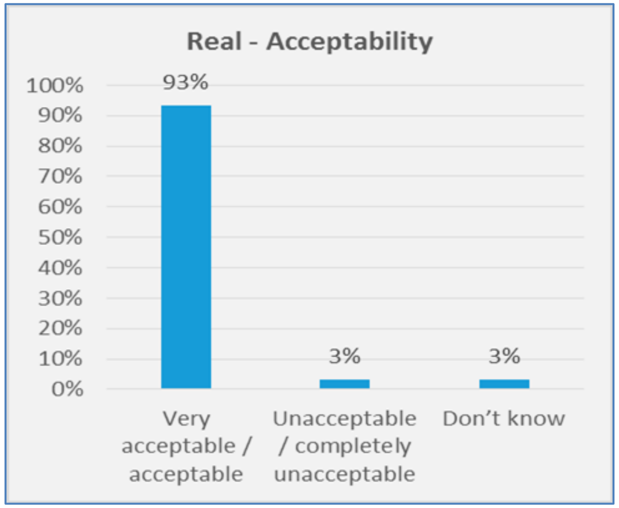


Figure 146: Bill acceptability

12.4 Company Specific Adjustment to the cost of capital

Ofwat challenged our evidence on the company specific adjustment to the cost of capital (CSA). We have carried out a significant amount of review and testing in order to consider this challenge carefully. This was however hampered by the CSA technical appendix 4 not being published until 6 February, the spreadsheet providing explanation of Ofwat's approach to the non-totex benefits not made available until 22 February, and the ODI rate calculations spreadsheet that is also necessary to understand the CSA assessment not being published until 6 March. This is a complex area of methodology, with efficiency models that differ from those included in the March 2018 consultation. Whilst we have made significant progress in understanding the totex and non-totex benefits assessment for the CSA, we cannot conclude with certainty at this stage.

We describe our approach on the CSA further below, against Ofwat's three-stage approach:

We have reduced our CSA premium from 45bps to 38bps, within Ofwat's range. Updated analysis by KPMG concludes that this addresses Ofwat's criticisms of KPMG's previous work in full, as adjusting for the changes Ofwat suggested in the analysis in general in fact increases the size of the cost of debt adjustment. Whilst KPMG believe their reasons to exclude some elements of debt from their analysis remains sound, this did not bias the results. Their analysis produces a range from 39 to 60bps. As we tested 38bps with customers, we propose this assumption for our revised business plan. Effectively, we have removed our 15bps assumption for the cost of new debt, reflecting the fact that our recent financing did not reflect this increase. In addition, the low new financing requirement in 2020-2025 also means we do not need this component. Therefore, this passes the "level of uplift" test.

Ofwat's benefit test requires a significant amount of judgement. Our analysis, and that of KPMG has found significant errors in the original IAP analysis, both in totex and non-totex elements. On non-totex benefits in particular, the valuation based on ODI incentive rates incorrectly deducted 50% for marginal benefits, from rates that already were marginal benefits (with 50% removed from WTP using the standard ODI incentive rate formula). We present evidence that we pass the benefits test, although this depends on a wide range of assumptions and judgements that we wish to discuss further with Ofwat. It is not always clear in the test whether "customer benefit" or "benefit to Ofwat's upper quartile comparisons actually carried out" is the focus of the test. We believe it should be the former, and therefore extend Ofwat's IAP analysis which focussed chiefly on the latter. We demonstrate that in the round we pass the "customer benefit" test. We believe the net benefits are of the order of £20m, within a range from a c£10m disbenefit to over £160m of net benefit

Irrespective of the benefits test, we have very strong support from customers. Our original plan tested the amount of compensation that our customers would want if they were to be supplied by a different organisation. This indicated customers would require an average of at least £20. We also showed high acceptability for a plan that included the cost of the small company premium, with a range of commitments (including voluntary sharing) that would embed this support. Since our original plan we have gone further in demonstrating that the benefits of a local community company such as Bristol Water are real, including through the publication of our social contract. For the revised plan, we tested customer support using the wording used by Portsmouth Water. Despite our uplift being significantly higher than Portsmouth (at £1.74, although we tested £1.80 to be cautious as to the calculation), we achieved the same level of support at 87% that Portsmouth obtained. Therefore we clearly demonstrate that we pass the "customer support" test.

Our calculations can be found in **BRL.C5C. TA05. CSA benefits spreadsheet** and supporting information can be found in **BRL.TR02 Company-Specific Adjustment to the Allowed Cost of Capital.**

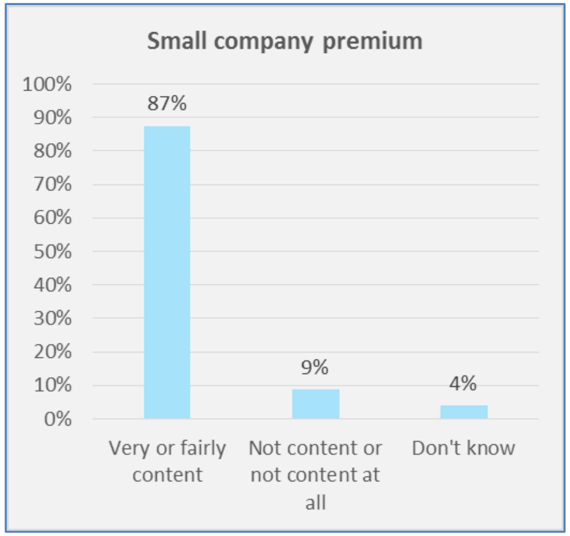


Figure 147: Acceptability of small company premium

12.5 Revised plan sharing mechanisms

Our revised plan maintains both a sharing mechanism related to gearing, adopting Ofwat's proposals in the "putting the sector back into balance" consultation, as well as a "Bristol Water For All" reinvestment mechanism. We have developed ***"Bristol Water for All"*** – our proposal as part of our plan which ensures customers are protected from a) equity being reduced by increases in gearing that are not related to agreed, efficient investment where this reduces the cost of debt below price review allowances; and protected through b) local scrutiny of delivery of our key customer excellence and local community and environment outcomes, with the value of customer support for us as a local community company (reflected in our view of the value of the additional cost of debt) reinvested where we fall below our minimum expectations for these two key aspects of our business.

Higher gearing

As part of our plan we respond to Ofwat's challenge to companies to include a sharing mechanism should gearing increase above 70%. This was considered carefully by the Board. Given that Bristol Water has actively reduced its gearing to close to the notional level Ofwat assumed at PR14, from above 70% in 2015, the plan trade-offs and financial viability as a whole do not allow for gearing at levels above 70%. Therefore we can protect customers by adopting a mechanism to reduce customer bills with a 50% share for the difference between the actual nominal cost of debt and nominal (long-term) cost of equity for gearing above 70%, for the excess above 65%.

We propose to exclude our £12.5m preference shares from this calculation, which is consistent with the adjustment to gearing included in our Annual Report (and of the approach taken by the CMA in 2015). This reflects that these specific historical financing arrangements can be considered equity rather than debt in some circumstances, particularly from the perspective of financial viability (especially given the ability to defer coupons and their loose covenant). An illustration of this mechanism is shown in Figure 148.

1. SHARING THROUGH BILLS FOR HIGH GEARING			
1a.	**Actual nominal cost of debt**	7.10%	PR19 proposal
1b	**Actual cost of debt**	4.98%	Example
1a-1b	Cost of equity difference to actual cost of debt - total	2.12%	Outperformance
1d.	Gearing threshold	70%	
1e.	Notional gearing plus deadband	65%	
1f.	If: Actual gearing (regulatory net debt excluding preference shares)	71%	Example
1g. If 1f>70%, 1f - 1e	Then sharing of	6.0%	
1h	If year average RCV is:	550	£m example
1i = (1a-1b)*1g * 1h	Gearing (debt and equity) sharing rate	0.700	£m
1j	Sharing rate	50.0%	
1i*1j	Value of reduction in customer bill following year	0.350	£m

Figure 148: Illustrative calculation for reinvestment of company specific adjustment to the cost of debt

ODI outperformance sharing

Although our ODIs do not exceed 2.2% of RORE in any individual year, for consistency we are happy to adopt 50% sharing for outperformance above 3% of RORE as an industry principle.

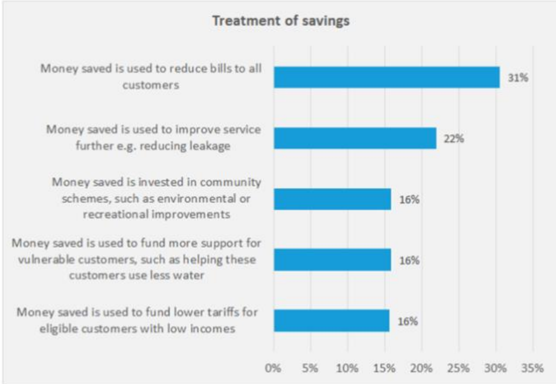
Voluntary reinvestment - performance sharing in our social contract

We have updated and clarified our "Bristol Water For All" voluntary sharing mechanism.

We carried out extensive research into customer views on sharing and reinvestment mechanisms. In our research, customers preferred a mixed approach. While some preferred reinvestment in services, for others a bill reduction for lower borrowing costs was the preferred option.

Bristol Water has relatively low gearing and has not paid out excessive dividends, has not used complex financing structures and pays a fair amount of tax. We do not expect to have to use our gearing benefit sharing or reinvestment proposals in practice, but they are there so that we can demonstrate that customers can continue to trust us – we may be privately financed but this is to their benefit, and does not change our focus as a privately financed, socially responsible company, delivering essential public, and environmental services.

To meet customer views, we have therefore proposed a reinvestment mechanism (Figure 149) to reflect the performance benefits that we think underpin customer support for our proposals for a company specific cost of debt adjustment. We believe, as do our customers, that the benefits of being served by a small water company continue to outweigh the additional financing costs.



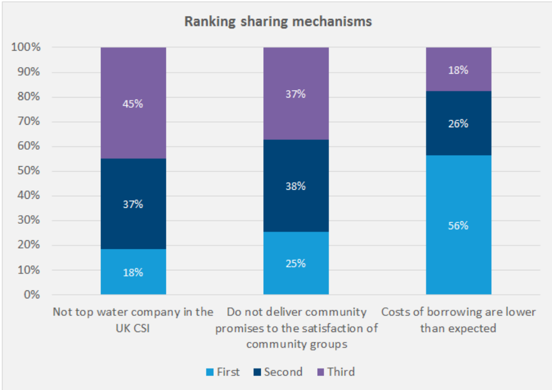


Figure 149: Customers ranking of sharing mechanism

However, we will go further than relying on our customers' support.

Although we linked the value of our voluntary sharing mechanism to our calculation of the CSA value, based on the customer research, this relates to trust and the effectiveness of the mechanism and is not dependent on the value being allowed by Ofwat at PR19 (we did not state that this was the case in our original plan – the logic arose from our research and was an additional protection to customers though). We are happy to clarify this approach. This is the **Bristol Water For All** reinvestment value. We have adjusted the mechanism though to reflect the financial position and circumstances at the time, to avoid it harming financial resilience.

We propose two triggers linked to our business plan narrative

1. We are not one of the top 3 England & Wales water companies in a UKCSI index (either in the national public survey published twice a year or the UKCSI Bristol Water business benchmarking, whichever has a larger sample size). We would assess the position based on the results of these surveys in agreement with the Bristol Water Challenge Panel. Failure to hit this plan promise would see re-investment of 50% of the value to households of the Bristol Water For All reinvestment value.
2. The Community stakeholder satisfaction with initiatives survey falls below 75% (compared to the ODI reference level proposed of ODI trigger level of 85%). This lower level is to avoid double counting with ODI penalties. Failure to hit this plan promise would see re-investment of 50% of the value of the Bristol Water For All reinvestment value.

The potential reinvestment value has been calculated for 2020-25 as £1.74 per household customer p.a (c1% of the average household bill). For reinvestment this is £1.50 per customer after tax. The rate of £1.50 per household would apply over the two performance metrics 50:50, should they not meet the criteria set out above.

The timing of use for the reinvestment fund will be discussed between Bristol Water and the Bristol Water Challenge Panel. However, we have amended our mechanism to provided protection for the timing of when the reinvestment fund will be utilised to provide further transparency for the starting points for these discussions. We will define a cap on annual use of the reinvestment fund:

If Moody's AICR is forecast by Bristol Water to be above 1.4x, then the maximum use of any reinvestment fund in an individual year would be 3% of Profit After Tax in the previous year. If above 1.25x, this cap would be 2% of PAT, and 1% if below 1.25x. This has the advantage of defining both financeability and profit reinvestment linked to two fundamental indicators of a well performing social contract. The operation of this mechanism over a number of years is illustrated in Figure 150.

	2. REINVESTMENT OF SMALL COMPANY PREMIUM		**Criteria met?**
2a.	UKCSI - one of top 3 water companies	0%	Yes
2b.	Community satisfaction above 75%	50%	No
2c.	Total outperformance sharing rate	50%	
2d.	Rate per household customer (post tax)	1.50	
2e.	Number of household customers	519,309	
2d. * 2e.	**Bristol Water for All reinvestment value (100%)**	0.781	
2d * 2e * 2c	Bristol Water for All reinvestment fund (example)	0.391	

	2020/21	**2021/22**	**2022/23**	**2023/24**	**2024/25**
Example:					
Community satisfaction not met in 2020					
Value added to reinvestment pot	0.391				
Forecast PAT (amd intercompany dividends)	15.00	15.00	15.00	15.00	15.00
Profit share					
Moody's AICR forecast >1.4x		3%			
Moody's AICR forecast > 1.25x		2%			
Moody's AICR forecast < 1.25x		1%			
Max Use of reinvestment pot					
Moody's AICR forecast >1.4x		0.450			
Moody's AICR forecast > 1.25x		0.300			
Moody's AICR forecast < 1.25x		0.150			
Use of reinvestment pot					
Moody's AICR forecast >1.4x		0.391	-	-	-
Moody's AICR forecast > 1.25x		0.300	0.091	-	-
Moody's AICR forecast < 1.25x		0.150	0.150	0.091	-

Figure 150: Illustrative calculation for sharing for high gearing

Deferment can also reflect on-going costs of reinvestment (e.g. if used to invest in an additional community programme or in social tariffs for an agreed number of years). Bristol Water will publish the value of the reinvestment fund and its utilisation as part of its "Trust Beyond Water" or similarly visible annual statement.

The reinvestment fund would be used to a) fund additional social tariffs above the customer level of support at the time (currently 75% of those potentially eligible) in the business plan, b) be used for additional community initiatives (added to the list in the social contract and satisfaction measured through the community satisfaction ODI) or c) potentially be used to offset any cost risk that arises from payments to the Canal and River Trust within our risk mitigation proposed with this plan. These options have been derived through the acceptability customer research described above.

We have not amended our dividend yield proposal in our revised plan. We believe Ofwat's IAP confirmed that our interpretation was consistent with the PR19 methodology and the early view on the cost of equity. We propose a dividend yield of 3.2% and a real growth rate of 1.3%, which is aligned to the 50% CPIH). Similarly, our allocation of the Regulatory Capital Value between Water Resources and Network+ remains unaltered having provided sufficient justification in previous submissions.

We set out in our plan the need for a notified item for the Canal & River Trust, and in the absence of arbitration commencing the issue will remain uncertain for draft and final determinations. The draft notified item is included as an appendix to our **revised C6 document**. We provide Ofwat with evidence to this effect in a separate document.

12.6 Summary of key financial metrics

A summary of some of the key financial metrics within our plan are shown in the table opposite and are described in this chapter.

Metric	PR14	PR19 September 2018 plan	PR19 revised plan
	2015-2020 average	2020-2025 average	2020-2025 average
ODI RORE range (central)	-2.0% to + 0.6%	-2.3% to + 1.1%	-2.5% to + 0.9%
Full range (including CMEX and DMEX)	-4.4% to + 0.8%	-5.1% to + 3.2%	-5.3% to + 3.0%
Full RORE range	0.2% to 7.6%	-0.8% to 8.7%	-1.0% to 8.4%
Central RORE	5.6%	4.7%	4.6%
Appointee WACC (real RPI)	3.78%	2.66%	2.61%
Appointee WACC (real CPIH)	4.59%	3.67%	3.62%
Credit rating - Notional financial structure	Moody's Baa1	Moody's Baa2	Moody's Baa1
Credit rating - Actual financial structure	Moody's Baa1	Moody's Baa2	Moody's Baa2
Notional gearing	65.6%	59.5%	59.3%
Adjusted interest cover Notional (Moody's)	1.54x	1.25x	1.27x
FFO/Net debt Notional (S&P)	11.3%	11.8%	12.3%

Figure 151: Financial metrics

Cost of Capital

We propose an appointee cost of capital (Table 11) in our plan of 5.70% nominal, which is a wholesale cost of capital for both water resources and water network plus of 5.60% after deducting 0.1% for residential retail margins of 1.0%. This includes our company-specific adjustment (CSA) to the real cost of debt of 0.38% (0.23% on the WACC), related to the additional cost of debt we efficiently incur as a small water only company. Although the evidence suggested a higher notional and efficient cost of debt of a small water only company than this assumption, we have limited our case to our actual additional costs.

We have reduced our CSA proposal from 0.45% in our original plan by not applying any uplift to the cost of new debt. We present a compelling range of evidence of the additional cost, the customer benefits and customer support for this additional cost of finance, for the period of time over which this historical debt continues (2033). This is affordable as we do not foresee major investments which are likely to increase bills and change customer support over this time period. Our small company cost of debt adjustment is worth £1.74 p.a. of average household bills, and is supported by 87% of customers surveyed.

Debt and gearing

Our debt/RCV gearing is projected to fall from 60% to 58% on the notional basis, and stay stable at c67% on an actual financing structure basis (Figure 152), after an initial increase of c3% because of the historical CIS adjustment and PR14 reconciliation adjustments.

Our debt levels are currently in the range 60-65%, consistent with notional company leverage as well as comfortably within our debt covenants. This was not always the case – it has been achieved through the Board’s implementation of a conservative dividend policy following PR14, including shareholders supporting that all dividends paid out of Bristol Water thus far in the regulatory period being retained within the Bristol Water Group, in order to reduce debt to its current levels and thereby increase financial resilience.

Our debt (which is historically rated Baa1 by Moody’s) comprises a combination of bank and bond debt raised over time under the umbrella of a security arrangement containing monitoring and controls which help to increase financial resilience.

We provide evidence in our **revised C6 document** that confirms our view that a target actual credit rating of Baa2 at a company level is supportable and allows for efficient funding for 2020 – 2025, despite the impact of AMP6 penalties. On a notional basis, we consider our ratios support a higher long term rating targeted at Baa1. We also believe that our successful refinancing in 2019 provides confidence of our financeability at efficient and competitive pricing levels. The Baa2 rating incorporates and thus fully reflects a) the impact of AMP6 penalties and b) a realistic view of the impact on the rating of Moody's recent increases in expectations, despite the fact that we believe appropriate risk mitigations are in place at Bristol Water, which we set out further below.

We believe that the change in expectations highlighted by Moody's (increasing the threshold for the AICR ratio to 1.5x from 1.4x) results from concerns that are mitigated in Bristol Water by the following:

- Our current track record of meeting expenditure targets, which is acknowledged by Ofwat in the IAP;
- The risk mitigation offered by existing covenant and security package, such as lock ups;
- The level of gearing, current and forecast, is below peers and is in line with Baa1 expectations;
- Temporary factors do not generally lead to a downgrade in rating; and
- The relative (un)likelihood of a two notch downgrade given the otherwise stable business risk profile.

Whilst our focus in the analysis is on the Moodys Baa2 rating and the AICR ratio, we note that we also calculate ratios based on guidance from S&P. Based on these calculations, we believe our ratios are strongly positioned to achieve a BBB rating, and fully support a strong and stable rating throughout the period. We consider that the company will be in a strong and financeable position to raise the low level of debt required (c£9m) in the forthcoming period at a Baa2 rating from Moody's. As such, we continue to maintain that the Baa2 rating is appropriate for the size of the company and level of financing required and that the differential in cost of debt between a single notch in rating is not significant, particularly in the context of the low level of new debt required in the period. We further believe that the likelihood of a further notch downgrade from either rating agency is low given the other factors taken into account in the credit rating and the risk mitigants in our plan.

In line with our transformation journey, we do not expect to make significant financing outperformance during 2020-25, as we have underperformance revenue adjustments from

		With small company premium	Without small company premium
Notional gearing	%	60.00%	60.00%
Total Market Return (TMR)	%	8.60%	8.60%
Risk free rate (RFR)	%	2.10%	2.10%
Equity Risk Premium (ERP)	%	6.50%	6.50%
Debt beta	dec	0.10	0.10
Raw equity beta for listed company comparator	%	77.38%	77.38%
Actual gearing of listed company comparator	%	60.00%	60.00%
Asset beta	dec	0.37	0.37
Re-levered equity beta	dec	0.77	0.77
Overall cost of equity (used in WACC)	%	7.13%	7.13%
Cost of embedded debt	%	5.17%	4.64%
Cost of new debt	%	3.39%	3.39%
Ratio of embedded to new debt	%	70.00%	70.00%
Issuance and liquidity costs	%	0.10%	0.10%
Overall cost of debt (used in WACC)	%	4.74%	4.36%
WACC ~ vanilla (pre-tax cost of debt and post-tax cost of equity)	%	5.70%	5.47%
Tax (marginal rate of corporation tax)	%	17.00%	17.00%
WACC ~ fully post-tax	%	5.21%	5.03%
Retail margin deduction	%	0.10%	0.10%
Wholesale WACC	%	5.60%	5.37%

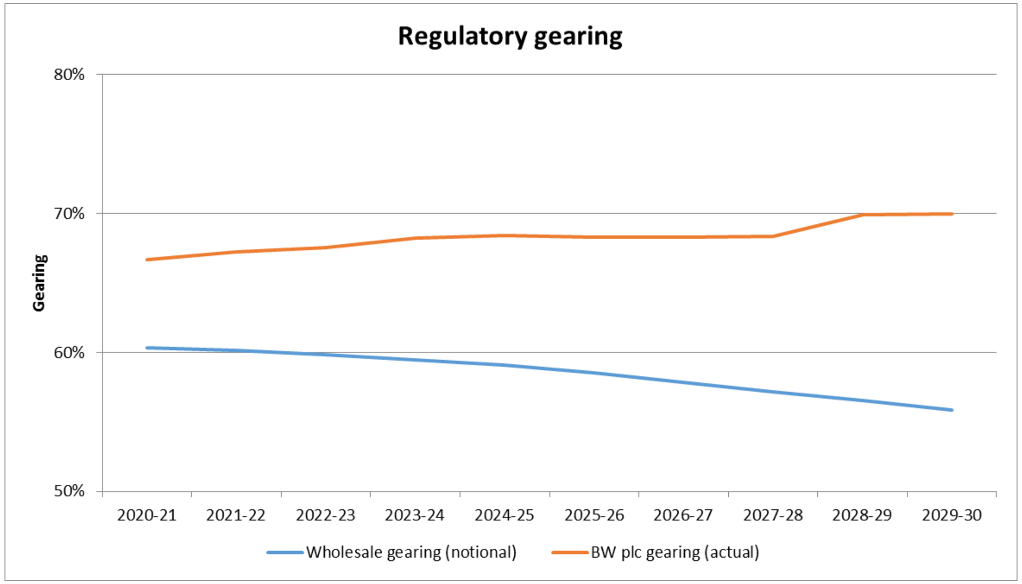
Table 9 Key financial metrics

2015-20 that shareholders will need to absorb.

The small company cost of capital adjustment includes 0.55% on the cost of embedded debt (0.38% total cost of debt). The non-totex benefits we calculate using Ofwat's CSA methodology are also reflected in specific deliverable in our plan linked to the reasons that customers trust a small, local company like Bristol Water. We have published a report from Ernst and Young[15] that sets out why these benefits exist, and could not be replicated by larger utilities. For us the factors identified by Ernst and Young are reflected in our transition, and our view that local companies operating in a regulatory framework that is open to competitive market development will see customers benefit from:

- Agility – speed of decision making in a changing social and operating environment – boosting resilience and adopting the best innovations from others.
- Customer experience – local brands are better connected to customers and more trusted.
- Local connection – close to the community and delivering better service at a lower cost. Partnering allows innovation with universities and agility sees it turning into tangible results quicker.
- Partnering – retail efficiency, delivered in partnership with Wessex Water through Pelican, brings wider benefits than companies working in isolation.

Other than this adjustment to the cost of debt, we have assumed a cost of capital in line with the assumptions Ofwat set out in the PR19 final methodology document.



[15] https://www.bristolwater.co.uk/regulatory-policy-and-consultations/

We have estimated a range for the benefits that offset the cost of the small company premium uplift, summarised in the table below. We believe Ofwat's IAP assessment significantly understated non-totex benefits, as it applied a 50% marginal benefit adjustment to ODI rates that already had the 50% outperformance ODI rule applied to it. We show a range for the areas we have valued below.

There is a range of debate about all of the estimates of benefit, whether it is applied as a forecast, and what is assumed about the probability that a company will have value as a comparator to Ofwat in the future. However, there is clear evidence that Bristol customers value the service they get from Bristol Water, and that there are a number of areas, even if not used by Ofwat for direct comparisons now, there is still some value from this.

KPMG have worked with us to explore the potential areas, and we summarise the impact below:

- There is a range of uncertainty about the historic totex models, and for wholesale it appears more likely than in the past that Bristol Water will be at or beyond the upper quartile of efficiency. Forecast costs may be more useful than historic costs forward impacts, and the result of the IAP needs adjusting for policy changes (for us the canal sales costs) and for the model triangulation approach (which we are exploring further with NERA). We show a range of possible totex disbenefits at this stage. The same issues apply for retail, but we assume some disbenefit or neutral impact at this stage. For retail we adjust for the impact of not using our projection of increased metering in the forecast costs.
- Bristol Water is setting the frontier for supply interruptions and leakage at PR14. We calculate a benefit value that adjusts the unit rates. KPMG suggested applying penalty rather than outperformance rates, which we feel is worth considering further but for this estimate we do not include this approach.
- For UKCSI and SIM, there are a range of approaches that reflect that Bristol Water are consistently amongst the leading water companies on UKCSI, and this forms part of the CMEX methodology at PR19.
- For unplanned outage, Bristol Water is beyond the upper quartile, although this is a new metric, and as an asset health measure can produce large benefit values. The same also applies to Compliance Risk Index. Bristol Water has been consistently one of the leading companies on CRI, and Ofwat are setting common incentives on this measure. There must be some value to regulation from this level of performance, and attempting to apply the standard methodology used for other non-totex areas can produce a large benefit value. Appearance contacts based on forecast performance also has a value.
- KPMG view that the precision test used at mergers could also be considered as part of the benefit test, as the models become less precise and harder to use to set challenging targets with fewer observations.

The cost of the 38bps uplift is £6.1m. Overall this is offset in our central scenario by a modest range of benefits. The potential technical adjustments and other benefit areas outside of the standard Ofwat test, including the value expressed by Bristol Water customers, shows a significant net positive benefit. We believe this demonstrates sufficient benefit, as the customer valuation on its own is sufficient to offset the net disbenefit Ofwat identified in the IAP of c£20m (£13.5m plus £6.1m revised cost of uplift).

Dividend yield

We propose an initial dividend yield of 3.2% and a real growth rate of 1.3%, which is aligned to a 4.5% blended notional cost of equity (50% RPI, 50% CPIH). The ability to pay this level of dividend will be dependent on financial performance as well as, critically, performance against our commitments.

Financial profiles

We also consider the affordability implications of our plan on customers, and how we have sought to address these through our proposed bill profiles. This is in the context of customer support for our outcome incentives, as well as approach to revenue recovery including our PAYG rate.

PAYG rates

The Pay As You Go (PAYG) rates utilised in our plan are closely aligned to what we believe to be the natural PAYG rate. We define this as the level that recovers operating expenditure and infrastructure capital maintenance, and believe this is appropriate as:

1. This equates to the level of expenditure that was historically recovered through customer bills. Aligning to this long-term principal provides a fair balance between current and future customers.
2. Customers do not support debt increasing for day-to-day maintenance activities. The infrastructure capital maintenance expenditure included in our plan reflects a sustainable level of expenditure for the long-term, and is broadly aligned to our expected AMP6 expenditure and forecast AMP8 expenditure.

For more information on our customer research into financing structures and mechanisms, see our **revised Section C6 document** of our supporting evidence.

We make minor adjustments to our PAYG rate to reflect bill profiling and financing considerations as we finalised our plan. As we present in the bill waterfall chart later in this section, these PAYG rates represent a significant increase from the 55% at PR14, which reflected a capital investment approach that was inefficient and is not reflected in Bristol Water's future investment plans. It also resulted in significant growth in RCV over the period, materially in excess of that at other WOCs.

		Annual Water Resources						Annual Water Network					
	Unit	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Total operating expenditure	**£m**	**11.7**	**11.7**	**11.7**	**11.7**	**11.8**	**58.6**	**42.4**	**42.0**	**42.0**	**42.1**	**42.3**	**210.8**
Infrastructure maintenance expenditure	£m	0.7	0.7	0.6	0.6	0.6	3.2	11.9	12.0	11.9	11.7	11.2	58.8
Non-infrastructure maintenance	£m	1.7	1.4	4.7	1.3	1.3	10.4	12.3	12.5	9.2	13.0	13.9	60.9
Enhancement investment	£m	1.4	2.1	2.1	2.1	2.1	10.4	12.7	22.8	23.1	22.4	21.7	114.6
Total gross capital expenditure	**£m**	**3.7**	**3.5**	**6.7**	**3.4**	**3.4**	**20.7**	**36.9**	**35.3**	**32.3**	**35.3**	**35.6**	**175.5**
Grants and contributions	£m	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.4	3.5	16.8
Total net capital expenditure	**£m**	**3.7**	**3.5**	**6.7**	**3.4**	**3.4**	**20.7**	**33.6**	**32.1**	**29.0**	**31.9**	**32.1**	**158.7**
Totex	**£m**	**15.4**	**15.2**	**18.4**	**15.1**	**15.1**	**79.3**	**75.9**	**74.1**	**71.0**	**74.0**	**74.4**	**369.5**
Natural PAYG Rate	%	80.0%	81.4%	67.0%	81.9%	82.2%	77.9%	71.6%	73.2%	76.4%	73.2%	72.5%	73.0%
Adjustment to PAYG Rate	%	-0.3%	-0.2%	-0.1%	0.1%	0.4%	0.1%	-1.1%	-0.6%	-0.3%	0.3%	1.3%	0.3%
Total PAYG rate	%	79.7%	81.2%	67.0%	82.0%	82.5%	78.0%	70.5%	72.6%	76.0%	73.5%	73.7%	73.2%
TOTAL PAYG	**£m**	**12.31**	**12.32**	**12.35**	**12.40**	**12.49**	**61.87**	**53.55**	**53.78**	**54.01**	**54.39**	**54.86**	**270.59**

Figure 153: Financial profiles and PAYG rates

RCV and RCV run-off

The opening RCV includes the updated adjustments to our PR14 reconciliation. The key contributors to a lower opening RCV include the £8.0m CIS inflation correction, £2.2m land sales adjustment, £0.8m mains bursts RCV ODI penalty and £8.3m totex outperformance pass back to customers.

Our final proposed allocation of the opening RCV to water resources is unchanged at 22.07%. We provide the evidence for this adjustment in our **revised C6 document**. There are no adverse customer bill impacts from this allocation. We will separate our wholesale charges into water resource and water network plus components from 2020.

The midnight adjustments to the RCV are a reduction of c3%, which increases actual opening gearing from c64% to c67%. This means that without the midnight adjustments, gearing would have been broadly in line with the 60% notional gearing.

We calculated the RCV run off rates based on current depreciation as a proportion of the March 2020 RCV for each control. We provide further information in support of our run off rates in our **revised C6 document**. Our post 2020 RCV additions rates are based on the depreciation charges arising from the proposed capital expenditure excluding infrastructure capital maintenance. The rates overall are slightly lower than the 6% applied at PR14, and we have maintained a reducing balance approach which is appropriate given the broadly stable RCV (overall reducing by 0.2% p.a. 2020-2025 in CPIH real terms).

To protect customers from the transition to CPIH, we have adjusted natural RCV run-off rates. This has been achieved by establishing what the 2020-25 bill level would have been if all of the brought forward RCV was indexed by RPI and the associated return was based on a real WACC discounted by RPI. When implementing the proposed 50:50 split of March 2020 RCV between RPI and CPIH linked balances, we scale back the RCV run-off rates to match the bill levels previously calculated to protect customers from an immediate bill increase caused by the change in methodology.

For our revised plan we have amended our approach to CPIH transition and, in response to an Ofwat IAP challenge, tested longer term bill profiles. These are marginal changes in terms of the balance of customer bills (c.£2), but we have increased our transition adjusted RCV run off rates, increasing them by 0.2% in 2020-25 and reducing by 0.2% in 2025-30 to reflect both a revised approach to transition, and customer preferences for a smooth bill profile.

RCV Run Off Rates	Unit	Water Resources			Water Network Plus			
		pre 2020 RPI	pre 2020 CPIH	post 2020 CPIH	pre 2020 RPI	pre 2020 CPIH	post 2020 CPIH	Blended CPIH
Natural RCV rate	%	2.19%	2.19%	6.60%	5.91%	5.91%	5.47%	5.82%
RPI CPIH transition adjustment	%	-0.09%	-0.09%	-0.56%	-0.26%			-0.50%
Reducing balance RCV run off rate	%	2.10%	2.10%	6.04%	5.65%			5.32%

Figure 154: RCV run off rates

Changes in the bill (from 2019-20 actuals)

There are a number of contributions to falling bills, including new customers, a reduced cost of capital (which is in part reflected in the RCV run off rate which includes adjustments to reflect the transition to CPIH), adjustments from PR14 (from outperforming on totex and underperforming on ODIs) and reduced tax rates. Expenditure (reflected in reductions in retail cost to serve, totex and RCV) is reducing the bill, but this is offset by an increase in the split of expenditure from enhancement to operations and maintenance, reflected in the “PAYG” rate. Most of the changes in the bill are technical. Wholesale totex is decreasing by £19m in 2017-18 prices between AMP6 and AMP7 (which includes new expenditure of £40m offset by efficiencies of c£59m). The mix of the programme changes towards maintenance, which sees the “Pay As You Go” rate increase from 55% to 74%. Retail costs reduce, with cost increases offset by efficiencies.

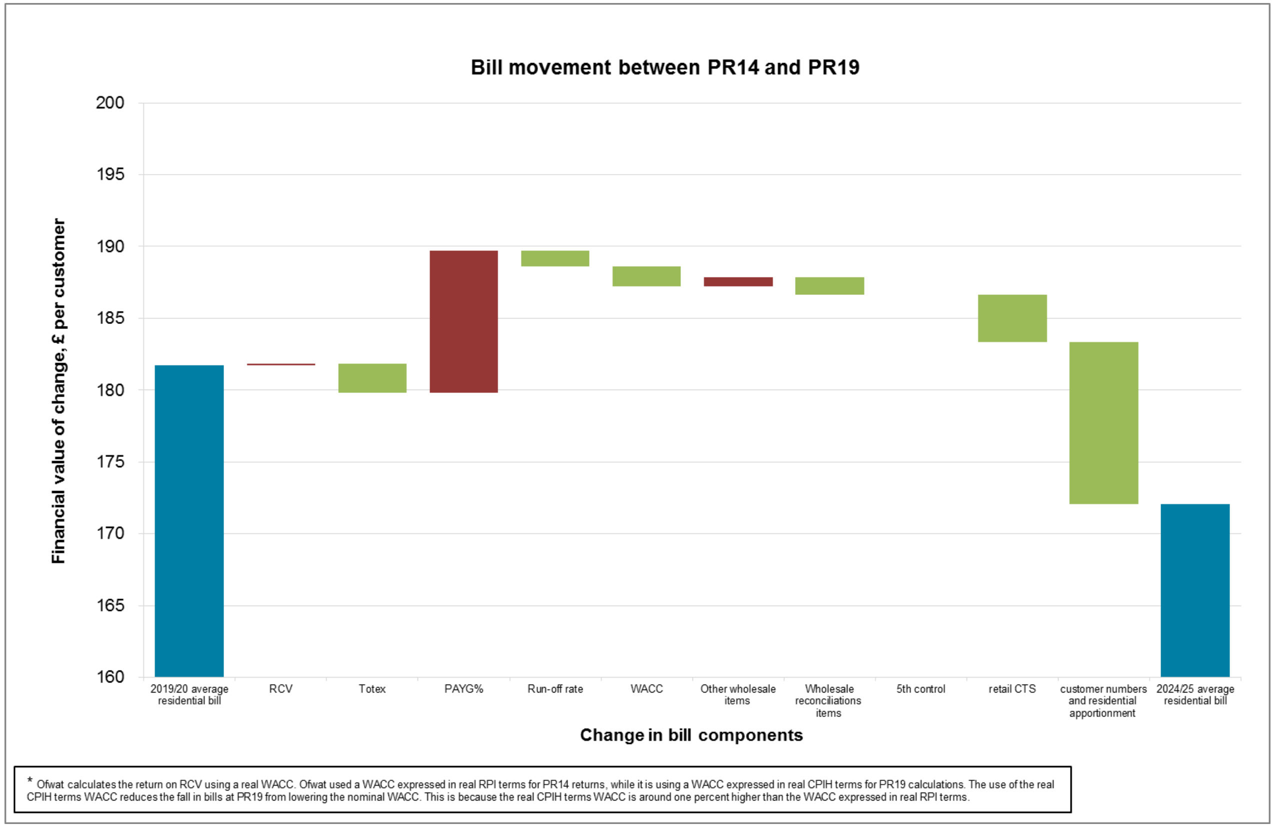


Figure 155: Reasons for bill movement between PR14 and PR19

Appointee profit

Appointee profit increases slightly 2020-2025 – this reflects a slightly declining bill before CPIH inflation and that most of our cost efficiencies have been assumed to be achieved from the outset at 2020, reflecting the benefits to customers of our transformation programme. We assume a tax rate of 17% in line with Government projections, with capital allowances and a c5% higher gearing than notional resulting in a lower effective tax rate at c13%. The individual price controls show a similar pattern, reflecting a plan that is integrated as a whole and without major new enhancement investments that dominate particular controls. This reflects our high quality and efficient retail services, and a water resource plan that requires water efficiency, metering and leakage reductions that are part of network plus.

Dividends are rising in real terms as efficiency is shared between customers and shareholders. This approach encourages equity retention to support financial resilience if cost risks emerge later in the period.

		Annual Appointee				
		Notional Structure @ Nominal Values				
Income statement - nominal	**Unit**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**
Revenue - Appointee - nominal	£m	125.0	128.4	131.7	135.1	138.3
Operating income - Appointee - nominal	£m	0.0	0.0	0.0	0.0	0.0
Opex - Appointee - nominal	£m	-66.4	-67.5	-68.9	-70.3	-71.9
Depreciation - Appointee - nominal	£m	-20.8	-22.0	-22.7	-23.8	-24.9
Operating profit - Appointee - nominal	£m	37.8	39.0	40.0	40.9	41.5
Other Income (incl. 3rd party income) - Appointee - nominal	£m	2.0	2.0	1.6	1.7	1.7
Interest (income) /expense Appointee - nominal	£m	-13.1	-13.2	-13.3	-13.3	-13.4
Indexation of index-linked loans - Appointee - nominal	£m	-3.2	-3.3	-3.4	-3.5	-3.6
Profit before tax - Appointee - nominal	£m	23.5	24.5	25.0	25.7	26.1
Current tax charge - Appointee - nominal	£m	-2.5	-2.8	-3.0	-3.3	-3.4
Movement in deferred tax provision - Appointee - nominal	£m	-1.0	-0.9	-0.7	-0.6	-0.4
Profit after tax - Appointee - nominal	£m	20.0	20.8	21.3	21.9	22.2
Dividend - Appointee - nominal	£m	-6.6	-6.8	-7.1	-7.3	-7.5
Net profit - Appointee - nominal	£m	13.3	14.0	14.2	14.6	14.7
FFO less dividends declared - Appointee - nominal	£m	0.0	0.0	0.0	0.0	0.0
Funds from operations - Appointee - nominal	£m	36.6	38.3	39.6	41.0	42.2
Net debt - Appointee - nominal POS	£m	336.9	341.3	344.8	347.4	349.7
RCF to capex - Appointee	%	89.7%	99.1%	99.9%	102.6%	103.0%
RORE	%	4.6%	4.6%	4.6%	4.6%	4.6%
-	Ratio	0.0	0.0	0.0	0.0	0.0
Adjusted cash interest cover ratio (Ofwat) - Appointee	%	221.8%	230.8%	237.6%	244.8%	250.3%
Effective tax rate	%	11.4%	12.3%	13.2%	14.1%	14.6%

Figure 156: Income statement Appointee (nominal)

		Annual Appointee				
		Notional Structure @ Nominal Values				
Income statement - nomina	**Unit**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**
Revenue						
Water resources	£m	19.5	20.1	20.9	21.6	22.3
Water network plus	£m	95.0	97.5	99.7	102.1	104.7
Water wholesale	£m	114.5	117.6	120.6	123.8	127.0
Retail	£m	10.5	10.8	11.1	11.3	11.3
Appointee	£m	125.0	128.4	131.7	135.1	138.3
Operating profit						
Water resources	£m	5.1	5.3	5.5	5.8	6.0
Water network plus	£m	31.8	32.7	33.5	34.1	34.5
Water wholesale	£m	36.9	38.0	39.1	39.9	40.5
Retail	£m	0.9	1.0	1.0	1.0	1.0
Appointee	£m	37.8	39.0	40.0	40.9	41.5
Profit Before Tax						
Water resources	£m	1.5	1.6	1.8	2.0	2.1
Water network plus	£m	21.1	21.9	22.1	22.5	22.7
Water wholesale	£m	22.5	23.5	24.0	24.5	24.9
Retail	£m	0.9	1.0	1.1	1.1	1.2
Appointee	£m	23.5	24.5	25.0	25.7	26.1
Tax						
Water resources	£m	0.0	0.0	0.0	0.0	0.0
Water network plus	£m	-2.3	-2.6	-2.8	-3.1	-3.2
Water wholesale	£m	-2.3	-2.6	-2.8	-3.1	-3.2
Retail	£m	-0.2	-0.2	-0.2	-0.2	-0.2
Appointee	£m	-2.5	-2.8	-3.0	-3.3	-3.4
Deferred Tax						
Water resources	£m	-0.6	-0.6	-0.6	-0.6	-0.5
Water network plus	£m	-0.4	-0.3	-0.1	0.0	0.1
Water wholesale	£m	-1.0	-0.9	-0.7	-0.6	-0.4
Retail	£m	0.0	0.0	0.0	0.0	0.0
Appointee	£m	-1.0	-0.9	-0.7	-0.6	-0.4
Effective tax rate	%	11.4%	12.3%	13.2%	14.1%	14.6%

Figure 157: Income statement by price control (nominal)

12.7 Financing, ratios and financial viability

Our actual financing requirements are modest for this plan, which provides little opportunity for financing outperformance, but also little financing risk assuming our actual efficient cost of debt is reflected, as we propose. New debt and refinancing requirements amount to c£9m, 3% of opening net debt compared to the 30% notional assumption. Our recent financing costs have been in line with IBOXX. Around 25% of our opening debt is floating rate, with 53% index linked and the remainder fixed. This proportion stays broadly unchanged.

Our assessment of the business plan is consistent with and builds on the 10 year rolling financial viability statement that was included in our 2017-18 Annual Accounts.

Our financial ratios are robust and are based on the Ofwat ratios in the financial model. However, Moody's AICR is challenging to maintain when considering our actual financing structure and taking into account AMP6 revenue reconciliation adjustments.

The recent negative sentiment for the regulatory framework from Moody's means that their ratio to maintain the Baa1 credit rating (that Bristol Water currently maintains) has increased from 1.4x to 1.5x. We maintain a 1.4x AICR on a notional basis before accrued penalties, but are now expecting Baa2 and an AICR of 1.3x to take account of the AMP6 performance legacy. Without the company specific cost of debt adjustment we only meet an AICR of c1.2x on Moody's based on our actual ratios We explain earlier why this level of ratios and rating is appropriate.

Our other key financial challenge is to transition from our AMP6 PAYG rate of 55% to the c74% rate for AMP7 which reflects an operating and maintenance based capital programme, rather than one that assumed enhancement investment such as for water resources.

Customer views, and our company operational and maintenance strategy has changed significantly since PR14, and this transition has been maintained by carefully managing our financial ratios, as well as gearing by maintaining equity within the business, with no dividends paid to ultimate shareholders during 2015-20.

A	Financial ratios ~ Notional capital structure	2020-21	2021-22	2022-23	2023-24	2024-25
1	Gearing	60.32%	59.93%	59.38%	58.80%	58.19%
2	Interest cover	4.29	4.41	4.52	4.63	4.71
3	Adjusted cash interest cover	2.22	2.31	2.38	2.45	2.50
4	Adjusted cash interest cover (alternative calculation)	1.26	1.29	1.32	1.35	1.36
5	FFO/Net Debt	12.8%	13.2%	13.6%	13.9%	14.2%
6	FFO/Net Debt (alternative calculation)	11.9%	12.3%	12.6%	12.9%	13.2%
7	Dividend cover	3.02	3.05	3.02	3.00	2.95
8	RCF/Net Debt	10.86%	11.23%	11.50%	11.81%	12.07%
9	RCF/Capex	89.68%	99.06%	99.95%	102.60%	103.01%
10	Return on capital employed	6.67%	6.71%	6.66%	6.65%	6.61%
11	RORE	4.64%	4.64%	4.64%	4.64%	4.64%
12	Target Credit Rating	Moody's Baa1	Moody's Baa1	Moody's Baa1	Moody's Baa1	Moody's Baa1
13	Moody's AICR	1.22	1.25	1.28	1.30	1.32
14	S&P FFO/Debt	11.7%	12.1%	12.3%	12.7%	13.0%

A	Financial ratios ~ Actual capital structure	2020-21	2021-22	2022-23	2023-24	2024-25
1	Gearing	66.65%	66.78%	66.76%	66.71%	66.64%
2	Interest cover	3.93	4.04	4.13	4.21	4.29
3	Adjusted cash interest cover	2.01	2.09	2.15	2.21	2.26
4	Adjusted cash interest cover (alternative calculation)	1.13	1.15	1.18	1.20	1.21
5	FFO/Net Debt	11.2%	11.4%	11.6%	11.8%	12.0%
6	FFO/Net Debt (alternative calculation)	9.6%	9.9%	10.0%	10.2%	10.3%
7	Dividend cover	2.64	2.68	2.63	2.61	2.57
8	RCF/Net Debt	9.56%	9.81%	9.96%	10.14%	10.28%
9	RCF/Capex	87.23%	96.44%	97.29%	99.91%	100.43%
10	Return on capital employed	6.57%	6.61%	6.56%	6.55%	6.51%
11	RORE	4.69%	4.72%	4.74%	4.76%	4.79%
12	Target Credit Rating	Moody's Baa1	Moody's Baa1	Moody's Baa1	Moody's Baa1	Moody's Baa1
13	Moody's AICR	1.18	1.20	1.23	1.25	1.26
14	S&P FFO/Debt	9.5%	9.7%	9.9%	10.0%	10.2%

Figur

We demonstrate that using the Ofwat standard scenarios our plan is financially viable to a combination of 10% totex underperformance, 1.5% RORE ODI penalty and a 1% of turnover financial penalty. This includes our CSA allowance, and for these extreme scenarios we would need to consider financial restructuring measures, as well as dividend retention to maintain financial viability without it. This would remain manageable. As set out above, the bill profile for the next 10 years, and as far as can be predicted after that point, is largely stable, excluding CPIH inflation and the timing of regulatory incentives.

Our own financial viability scenarios are similar in nature, but we are more specific about the risks. We have had to take specific measures to ensure the financial viability of the business plan. Our actual financial ratios show a significant hit from the existing revenue penalties and adjustments carried forward from AMP6. We do not want this to constrain our future ambition, but it is in customers' long-term interests to mitigate some of this impact. The notional ratios before these 2015-20 adjustments look far better than the actual financial ratios shown above, and this is reflected in the possible adjustment to our credit rating from Baa1 to Baa2, although this is still within the measures proposed and other risk mitigations provides sufficient financial resilience for 2020-25. At the same time, customers benefit from lower bills and improved services, with appropriate incentives to ensure the business continues to deliver on its obligations.

Financial ratio scenarios		Notional		Actual		Corporate	
Impact on lowest ratio 2020-2025	Outcome	Moody's AICR	S&P FFO /Net Debt	Moody's AICR	S&P FFO/ Net Debt	Moody's AICR	S&P FFO/ Net Debt
Base plan	**OK**	**1.22x**	**11.7%**	**1.16x**	**9.4%**	**1.25x**	**9.3%**
Scenario 1: 10% totex increase	OK	1.18x	9.9%	1.07x	7.9%	1.23x	7.8%
Scenario 2.1a: Low inflation	OK	1.21x	11.5%	1.15x	9.2%	1.21x	9.6%
Scenario 3: Bad Debt	OK	1.22x	11.7%	1.16x	9.4%	1.23x	9.3%
Scenario 4.2: 3% ODI penalty in one year	Fails viability	0.75x	10.2%	0.68x	7.8%	0.89x	8.2%
Scenario 4.1: £2.5m cap on ODI adjustments	Managed with returns	1.07x	11.5%	0.99x	8.9%	1.12x	9.1%
Scenario 5: New debt financing	OK	1.22x	11.7%	1.16x	9.4%	1.24x	9.3%
Scenario 6: Fine of 3% turnover	OK	1.22x	11.1%	1.16x	8.6%	1.24x	8.9%
Combined scenario 10% totex, 1.5% ODI, 1% turnover fine)	Mitigated with returns and end scenario	0.87x	8.3%	0.91x	6.7%	1.05x	7.1%
Combined scenario 8% totex risk from canal cost, 2% other, 1.5% ODI, 1% turnover fine	Mitigated with returns and end scenario	0.86x	6.8%	0.91x	5.4%	1.11x	5.9%
Combined scenario With ODI cap and canal cost mitigation	Mitigated with returns	0.93x	8.2%	0.96x	6.6%	1.09x	6.8%

Figure 159: Financial ratio scenarios

We have a key cost risk in the Canal and River Trust payments for the use of 45% of our Distribution Input, where they are seeking an increase from £1.8m p.a. to £10m p.a. We have not included this uncertain cost in our plan, as we believe the costs should be lower than they currently are. Instead, we propose a 75% customer to company sharing rate from a notified item mechanism for this cost risk. This risk will not be resolved before PR19 final determinations.

Without this notified item, we could not consider the plan to be financially viable as we could not guarantee investment grade rating with other potential risks, above the c£1.5m p.a. additional cost risk that this level of notified item protection for financial viability would allow.

In addition, we propose to cap annual bill application of ODIs and C-MeX, symmetrically for outperformance rewards and underperformance penalties at £2.5m (17-18 prices), 1.2% of RORE. Any remainder would roll forward to future years on an NPV neutral basis. This allows the business time to respond to unexpected and extreme events that affect performance, which could in combination with totex risks put pressure in financial viability. From an affordability perspective, customer support for the small company premium, stretching in-period ODIs and this cap have been obtained and are presented in our plan.

12.8 Summary of overall RORE balance

The overall summary of risk and return in the Ofwat methodology is based on a variation in the Rate of Return on Regulated Equity (RORE), effectively the allowed total return to shareholders that varies with performance. Effectively, this shows the range of performance a notionally efficiency company should experience 80% of the time. This is different from the financial viability assessment, which looks at more extreme adverse circumstances, but the principles are similar. Our revised plan for RORE at PR19 is forecast to be -1.0% to +8.4%. This aligns with the Ofwat PR19 methodology, which suggests RORE of c4.5% real cost of equity (50% RPI, 50% CPIH) +4% / -5%, taking into account +/- 2-3% for ODIs and c+/- 2% for Totex. Given our stable water resource position, we assess any revenue risks from new entrants identifying cheaper sources of water to be outside the 10% to 90% central RORE range.

The outcomes in our plan includes the potential for outperformance payments that could in theory deliver significant rewards, e.g. for shifting leakage down to the minimum technically achievable level, which is currently 29Ml/d. There are also underperformance payments that would happen if we failed to deliver fundamental aspects of our business which we have a strong track record for, such as the drinking water Compliance Risk Index. We do not include any enhanced ODI rates in our plan. Having reviewed the IAP approach, we have as requested by Ofwat removed tiers for standard incentive rates for industry leading performance, even where this was justified by our customer WTP at these levels of performance. This is balanced by removing outperformance deadbands for the same metrics, where we were only rewarding performance better than forecast industry upper quartiles. All of these changes have been tested through further customer research.

We summarise our calculation of RORE in the table and graphs overleaf. This shows that despite a c1.1% lower cost of equity than PR14, our central estimate for ODIs is more balanced between rewards and penalties, and totex risk appears in balance. 0.1% RORE equates to c£0.2m of outcome incentives or £0.4m of totex expenditure risk or opportunity (as a 50% customer sharing rate is assumed, except for the 75% for the Canal and River Trust risk). Financing risk reflects the notional company, rather than Bristol Water specific borrowings.

The RORE range for wholesale resources reflects the relatively small scale of ODIs (raw water quality, WINEP, AIM and 50% of biodiversity index) appropriate to this control. Most of the remainder of the financial incentives, which are largely asset health penalties, common measures such as leakage, Per Capita Consumption (PCC) and supply interruptions and resilience fall within the wholesale network plus control, together with D-MeX. The residential retail control includes C-MeX, voids and an element of PCC as incentives. Cost risks are also lower in water resources, because of the C&RT risk mitigation required for overall viability, most of which would fall outside of 80% probability in any case (we believe this probability to be at the risk mitigation threshold level). Retail costs have a balance of risks and opportunities, substantially on bad debt.

Given the challenge in the plan, the absolute level of potential aggregate incentives and penalties is only part of the picture. The level, structure and ambition of ODIs and PCs (which for example include a number of top quartile targets) means that our analysis suggests an expectation (or bias) towards net penalty payments in aggregate across 2020-25.

The overall level of capital expenditure is lower than previous periods – with the completion of major resilience investment such as the Southern Resilience Scheme and a Water Resource Management Plan that can be delivered through demand management and leakage reduction, with a moderate quality enhancement programme. The plan shows higher operating costs in CPIH real terms, reflecting totex and outcomes approach to investment, with the focus on leakage and water efficiency, as well as customer speed of response, driving the business forward. The level of performance improvement proposed means that the plan is efficient, with service levels pushing the boundaries of industry performance forward.

Our customer research on outcome incentives confirmed that annual bill volatility is not seen as a positive outcome of incentives, which they otherwise support. Equally it is bad for financial viability and a low and stable efficient cost of finance. The alternative is temporary equity injections to retain investment grade status (albeit such measures are not given much weight by Ratings Agencies given their discretionary nature). The total downside risk we present is larger than equity returns. This supports the ODI and Notified Item proposals we make that ensure that short term risks can be managed within a long-term incentive framework that retains an efficient financing structure. This reflects that our gearing is close to the notional level assumed following recent equity retention.

Our plan shows a better balance of appointee RORE than at PR14, which reflected an investment plan focussed on heavy enhancement investment but did not consider whether there were better options than sunk investment that could be more efficient when balanced by outcome incentive rewards. The RORE graph for the appointee demonstrate a better balance of risk and incentives appropriate to each control.

RORE SUMMARY	Appointee	Wholesale water resources	Wholesale network plus
Financing Outperformance	+0.1%	+0.1%	+0.1%
ODI outperformance	+0.9%	+0.3%	+1.1%
Totex outperformance	+2.2%	+0.8%	+2.1%
D-MEX outperformance	+0.1%		+0.1%
C-MEX outperformance	+0.5%		
Central RORE	**4.7%**	**4.3%**	**4.3%**
Financing underperformance	-0.2%	-0.2%	-0.2%
ODI underperformance	-2.5%	-0.7%	-2.9%
Totex underperformance	-2.4%	-0.7%	-2.3%
D-MEX underperformance	-0.1%		-0.1%
C-MEX underperformance	-0.5%		
Upside total	+3.7%	+1.2%	+3.4%
Downside total	-5.7%	-1.6%	-5.5%
Total P90	8.4%	5.5%	7.7%
Central RORE	4.7%	4.3%	4.3%
Total P10	-1.0%	2.7%	-1.2%

Figure 160: RORE summary

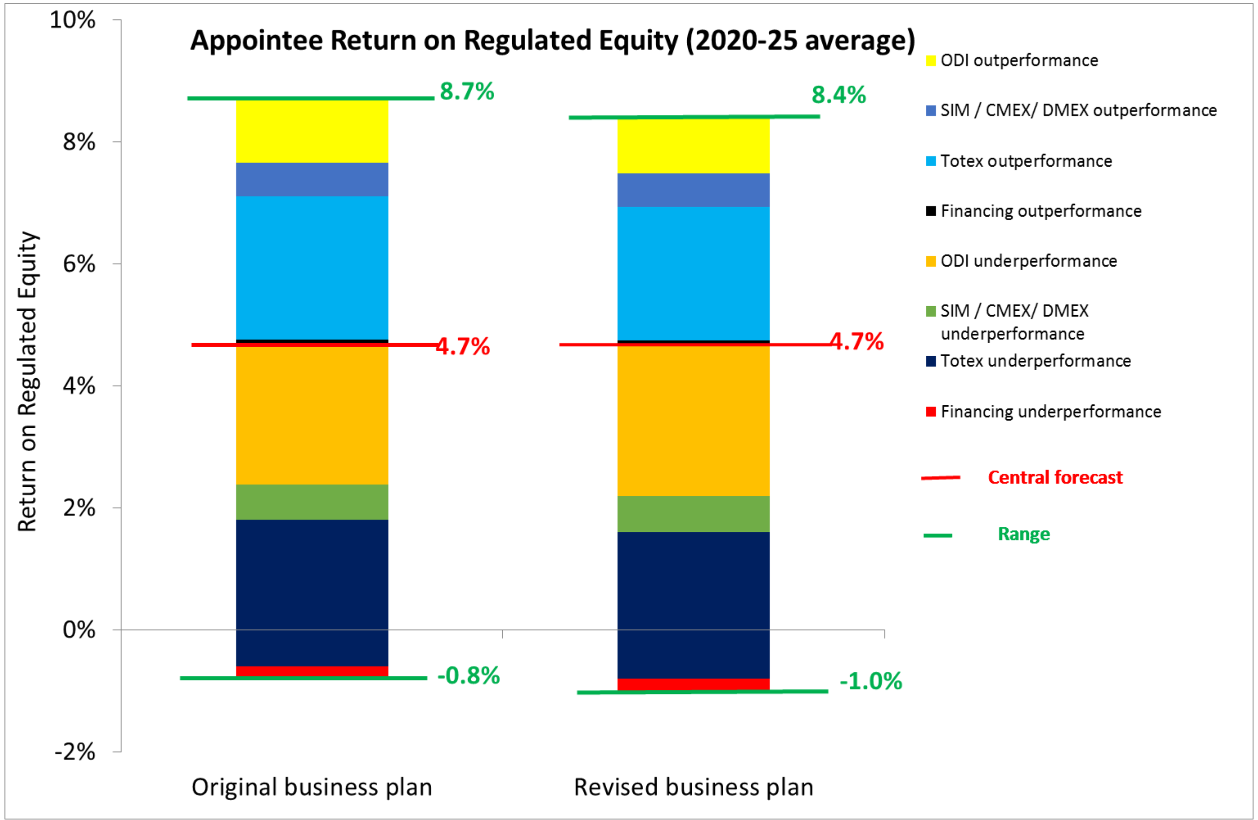


Figure 161: Appointee RORE range

13 Securing trust, confidence and assurance

13.1 Introduction

The Board of Bristol Water has been changing and strengthening since 2015. The Board of Bristol Water now has four Independent Non-Executive Directors, in addition to the Independent Chairman, who form the largest group of directors on the Board. The current structure and membership reflects the increased emphasis on governance, assurance, and Board strategic leadership required to gain and maintain the trust of our customers, stakeholders, employees and the communities we serve. We have kept Ofwat informed of changes in our Board as we have continued to transform the Board to meet higher expectations of Corporate Governance.

The Board, together with the executive team, have led the development of the company's Strategic Objectives, Purpose, Vision, and Values which underpin the Business Plan and ensure that the revised plan continues to put customers at its heart.

Board governance and assurance processes are designed to provide direction, as well as challenge and review, to the Business Plan development process and its content. These processes include three distinct lines of defence including internal and external assurance, a sub-committee specifically dedicated to the Business Plan, and regular full Board direct challenge and review. There is strong evidence that the governance and assurance has improved the planning process and the quality of the Business Plan, alongside driving improved performance.

Our Business Plan promises to deliver much higher levels of operational and customer service performances at much lower costs than current period. We have been gradually improving our operational and customer service performance over the past few years. The future challenges however require further improvements in service and efficiency levels. We have embarked on a Transformation Programme to substantially improve our internal capability in people, processes and technology, as well as how we work and collaborate with our supply chain. Our approach to ongoing innovation is a strong example of how a small water company can be both creative in development of its own new ideas, and agile in adoption and implementation of others.

We continue to fully commit both to the direction of travel and the specific requirements Ofwat have set out in "Putting the sector back into balance". We believe we have provided areas of significant leadership in corporate governance, supporting licence and regulatory changes, and in engaging customers, stakeholders and our people on the culture, purpose and values that "sector balance" requires.

13.2 Strength of the Board

The capability and effectiveness of our Board is the starting point to ensuring that customers, regulators, government, stakeholders and investors can have confidence in our plan and delivery of the commitments it contains. The Board of Bristol Water has been changing and strengthening since 2015. The Board of Bristol Water now has four Independent Non-Executive Directors, in addition to the Independent Chairman, who form the largest group of directors on the Board. The current structure and membership reflects the increased emphasis on governance, assurance, and Board strategic leadership required to gain and maintain the trust of our customers, stakeholders, employees and the communities we serve. We have kept Ofwat informed of changes in our Board as we have continued to transform the Board to meet higher expectations of Corporate Governance.

In developing this plan, the Board has been informed and challenged by the results of a series of independent reviews and by the work of the Bristol Water Challenge Panel.

Board Changes Since 2015

The acquisition of 50% shareholding by iCON Infrastructure in April 2016, and subsequently 80% in December 2016, resulted in Board changes and the adoption of a Code of Governance which, among other things, meant that investor representatives were not in the majority.

Board Assurance Statement

The independent chair of the Board ensured that by 2017, as well as the two executive directors and six Non-Executive Directors (NEDs) including three shareholder representatives, there were three independent non-executive directors. This was to ensure that, among other things, the Board could have a robust discussion about how important trade-offs, such as the balance between customer bills and shareholder returns, would be struck when making decisions about the business plan.

In April 2017, after a competitive process, the Board appointed Mel Karam as the new CEO with extensive experience of international and UK water, energy and infrastructure companies, both as a senior executive director and as a consultant undertaking strategic and operational performance improvements. Mel Karam has extensive UK and international water industry experience including operations, asset management and regulatory aspects of price reviews. The CEO lives in Bristol and is a Bristol Water customer.

By November 2018, the Board was further strengthened by the appointment of three new Independent Non-Executive Directors (INEDs) one of whom joined in June 2018. In October 2018 Laura Flowerdew joint the Board as the Chief Financial Officer (CFO), bringing with her experience in a range of multinational infrastructure organisations and latterly as CFO of Bristol Energy, Bristol's community-based energy supplier. The additional capabilities and insights from the new appointments are complemented by the continuity from the senior NED who remains on the Board and can ensure that the lessons derived from previous price review experience are properly reflected in the future strategy.

We have completed the Board changes we signalled to Ofwat in our original plan and consideration of this revised plan has had their full involvement.

The timeline of Board changes with details of how the Board has been strengthened is further described in the Appendix 1 to this Section 13.

Strong and relevant set of skills and experiences

The current Board benefits from strong and relevant skills and experiences as described below. These are essential to both setting strategic direction for the company, as well as appropriate levels of governance and assurance needed to ensure delivery of the strategy.

- **Keith Ludeman**: Independent Chairman - Extensive executive operational and leadership experience in transport (road and rail) sector. Extensive non-executive and Chairman experience in UK transport and infrastructure.
- **Tim Tutton:** Senior Independent Non-executive Director - Economist by background with corporate (National Grid) and consultancy (PWC) experience in utility and infrastructure regulation. Currently panel member with Competition and Markets Authority (CMA).
- **Jim McAuliffe:** Independent Non-executive Director - High profile local businessman with over 20 years as CFO of Bristol Airport, experienced in infrastructure management and regulation, as well as customer experience and local community leadership.
- **Paul Francis:** Independent Non-executive Director - Accountancy and Audit background (PWC) as well as long history of CEO position within the transport sector.
- **Jeremy Bending**: Independent Non-executive Director - Extensive utility engineering, operations and asset management background with Senior Executive roles at British Gas and National Grid (former COO of National Grid Gas).
- **Paul Malan**: Non-executive Director – Shareholder representative (iCON Infrastructure Investments) with experience in regulated water and utility sectors.
- **Indradoot Dhar**: Non-executive Director – Shareholder representative (iCON) Infrastructure Investments)
- **Hajime Ichishi**: Non-executive Director – Shareholder representative (Itochu)
- **Mel Karam:** Chief Executive Officer – Over 25 years' experience in utility and infrastructure operation, asset management and regulation gained in senior executive roles (British Gas, National Grid, SSE, Thames Water) as well as

- global experience as a Partner in KPMG Global Infrastructure Group.
- **Laura Flowerdew:** Chief Financial Officer – extensive experience with a range of multinational utilities and mining organisations and latterly as CFO of Bristol Energy, Bristol's community-based energy supplier.

Board committee structure and representation

The Board has four sub-committees as described below. Each Committee has an Independent Chair, and in addition, three INEDs and one or two NEDs. This structure ensures strong independence from both the executive and the shareholder directors:

- **Audit, Risk and Assurance Committee (ARAC):** Chaired by Paul Francis (Independent NED)
- **Remuneration Committee:** Chaired by Jim McAuliffe (Independent NED)
- **Nominations Committee:** Chaired by Tim Tutton (Senior Independent NED)
- **PR19 Committee:** Chaired by Tim Tutton (Senior Independent NED)

Leadership, Purpose, Strategy, Culture and Values

Through a series of Board Strategy days over the past two years, the Board together with the executive Team have developed the company's strategic direction. This includes clarity of the organisation's Purpose, its Strategic Objectives, its Vision and Mission statements, and its core values. The clarity of purpose and values underpin the Business Plan and ensure that the revised plan continues to put customers at its heart. A high level summary of these are given in the diagrams below:

The evolution of the company strategy informed the long-term strategic vision set out in ***Bristol Water…Clearly*** (published in February 2018), which invited comment from our customers, stakeholders, regulators and others with an interest in our strategic direction, culture and management priorities.

The document is the basis for our long-term customer-centric strategy. It provides the context and framework for our specific promises and plans for the next price control period and beyond. The transparency with which the company's philosophy and performance commitments have been articulated have been welcomed by the Bristol Water Challenge Panel (BWCP) and customers. The same transparency will inform how we monitor and report on the delivery of the PR19 plan.

13.3 Governance, Assurance and Transparency

Board governance and assurance processes are designed to provide direction, as well as challenge and review, to the Business Plan development process and its content. These processes include three distinct lines of defence including internal and external assurance, a sub-committee specifically dedicated to the Business Plan, and regular direct challenge and review. There is strong evidence that the governance and assurance has improved the planning process and the quality of the Business Plan.

Governance and role of the Board

Bristol Water Board takes the trust of customers very seriously. This reflects the history of the company, being a small local water company that was formed in 1846 under an Act of Parliament with a ground-breaking and ambitious aim to bring, fresh, clean drinking water to the area we serve.

Board governance has continued to be strengthened further since the business plan. We have refreshed our non-executive directors, recruiting three additional independent non-executive directors since April 2017. This includes a non-executive director with local community, business and customer links, who acts as a specific link between the Bristol Water Board, as part of our social contract, to the Bristol Water Challenge Panel, our customer forum of customers who have participated through our events in shaping our approach and plans, and our new employee forum that forms a key part of ensuring the way we deliver our plans reflects the social purpose, including wellbeing of people, that is a key focus for Bristol Water and its Board as set out in our social contract.

The Board identified key risks to the transformation required to enable the delivery of the PR19 plan. They include:

- The availability and retention of leadership and senior management talent
- Improving asset and knowledge management
- Improving supply chain performance and managing dependency on key contracts
- Data and information integrity given the company's "Prescribed" status
- Our contract for water resources from the Gloucester and Sharpness Canal

The Board engages regularly on these issues. Highlights include:

- Progress against the asset management improvement framework, which is assessed every 6 months with a session with the Board to review progress
- Direct Board engagement on four separate occasions on the Transformation Programme as it was developed during 2018 and 2019. This focussed on how the cost and service targets would be delivered for 2020-25 by improving the network supply chain model before 2020.
- The Board approved a data and information integrity action plan in February 2018 which included new commitments on leakage reporting reflected in this business plan, a reshaped approach to data reporting and transparency in the 2018 Annual Performance Report which was reflected in the Assurance Plan and the establishment of a project to take these short term data improvements further before 2020, including reshaping the relationship with assurance partners.

Throughout the creation of the Plan, the Board has received regular reports from the company's individual PR19 assurance partners, so it could interrogate and understand the scope of work, data sources and integrity, and the implications of their findings and recommendations. This has been complemented by the work of PwC, our Strategic Assurance Partner, which provides a further line of independent external input in addition to the work of the individual assurance partners.

Additionally, we have had several important independent reviews on specific issues, some initiated by the Company since the change of ownership and others preceding that. The results have brought external knowledge and perspective, and have driven significant change and improvement in business management and performance (see spotlight box overleaf).

The BWCP has had and will continue to have an important part to play in ensuring that customers can have trust and confidence in the PR19 Plan and its delivery.

At the last Price Review the Bristol Water Local Engagement Forum (as it was then known) was chaired by the former South West regional Chair of CCWater. In 2016 the Board invited Peaches Golding, OBE, the Lord Lieutenant of the City and County of Bristol to chair the BWCP. Peaches and her panel bring detailed knowledge of our own local communities and customers' constructive challenges, to ensure that the way in which we have used customer research and engagement to shape the Plan and make trade-offs is transparent, complete and appropriate.

Bristol Water Board members have been directly involved in customer and Challenge Panel events, while the Chair of the BWCP has attended Board meetings and working sessions, where her input has provided the Board with an ongoing customer and community perspective to inform its decisions.

The BWCP's independent report for Ofwat was published on the Bristol Water website so that customers and others have access to it, and the Panel will continue to be involved during the delivery of the Plan in AMP7, continuing to challenge our performance as well as a specific new role as part of the "***Bristol Water for All***" sharing mechanism.

Spotlight on: Independent reviews of Bristol Water

Ofwat's review of Bristol Water's PR14 business plan and the CMA review

Ofwat's review of our 2014 business plan led to a price determination that was substantially lower than that assumed in our PR14 plan. The Board in place at the time asked Ofwat to refer the determination to the CMA. The outcome was mixed, with a price determination closer to Ofwat's view than that in the original plan, although the CMA net result meant some additional funding for a reduced enhancement plan. Social media feedback indicated that some customers and consumers were concerned that the company had resisted the Ofwat determination, suggesting that the process had affected the trust and confidence between customers and the company, and that between Ofwat and the company.

This challenging referral process demonstrated that the approach of the then investors was not conducive to the right outcomes for customers and the environment. The company learned much from the detailed work of the CMA, and the process was instrumental in the change of ownership in 2016.

Due diligence review

The acquisition of Bristol Water by iCON Infrastructure in 2016 followed a due diligence review to provide the confidence that the company's investment requirements could be met, and that iCON Infrastructure would oversee changes needed to the organisation, to enable it to meet more demanding expectations of a private company providing essential services in a monopoly environment. The acquisition was led by Paul Malan, iCON Infrastructure's Senior Partner and now a member of the Bristol Water Board.

iCON Infrastructure is an employee owned, independent asset management group focused on infrastructure investment in Europe and North America. It has approximately €2.5 billion of funds under management invested in infrastructure businesses including Firmus energy, Oslofjord Varme, Verbrugge International, Bristol Water, Capstone Power Corporation, Service Terminal Rotterdam, Spinelli Terminals and Mountaineer Gas.

Paul has over 20 years' experience in infrastructure investment having worked for Macquarie Bank where he established and led their European utilities business and Deutsche Bank where he established and led an infrastructure investment business within its Global Markets division. This included South East Water, where Paul was also on the Board.

Since the acquisition, the Bristol Water Board has commissioned independent reviews to support the significant business transformation programme initiated by the new owners. Each of these reviews made recommendations which were adopted. They complemented and informed evolving and ongoing improvements to the company's governance and performance management arrangements. In combination, all these initiatives have served to improve the quality of our current plan.

Review of PR14 business plan

In 2016 PWC was commissioned to undertake an independent review of the approach to PR14 and recommend improvements based on best practice. Recommendations included:

- Development of a customer led strategy to frame the development of the PR19 plan.
- Appointment of a strategic assurance partner to assess and report on whether second tier assurance initiatives taken together were comprehensive, properly scoped and discharged to enable the Board to have the confidence it needed to sign off the business plan.
- Creating a separation of roles, including between the programme team responsible for producing the plan, reporting to the CEO, and those responsible for strategic proposals, and for challenging the plan.

Building on its knowledge of the improvements required, PwC was appointed to be Bristol Water's Strategic Assurance Partner for development of the PR19 plan. The contract stipulates that staff involved in providing assurance advice are not involved in providing other services to the company.

The Board has approved changes in the scope, coverage and alignment of the work of the assurance partners, and a more robust process for producing and signing off the Board Assurance Statement.

Reviews of Asset Management

In 2017 PA Consulting assessed our asset management relative to a mature, world-class, model. KPMG then worked with us to design an organisation model to deliver the recommendations. The Executive and Board receive independent periodic assessments of progress and benefits from implementing the model.

Board Effectiveness Review

In 2017, the Board commissioned an independent review of its effectiveness, the conclusions of which it subsequently published in our 2017-18 Annual Report. The review confirmed that the Board was compliant with its Governance Code, which is based on the Combined Code and Ofwat's own guidelines. It made recommendations relating to the skills and experience mix of Board members, to better support the delivery of the customer-centric strategy during the next AMP period. These recommendations have informed the appointment of new INEDs.

Challenge and Review process

In 2016, following external review of the lessons to be learned from PR14 and recommendations for best practice for the conduct of PR19, the Board established the PR19 sub-committee. The role of this sub-committee was to develop the framework and oversee the process for developing the Business Plan for AMP7, and to make recommendations to the Board as the detailed work and options evolved. The Committee is chaired by the Senior Independent Director, an independent non-executive director with extensive experience of infrastructure regulation. This PR19 Sub Committee complements the Audit, Risk and Assurance Committee, whose chair is also a member of the PR19 Sub-Committee and the Remuneration Committee.

This gives the full Board a strong, coherent approach to review and challenging the Executive team, which includes ensuring that we have the culture, resources, policies and practices in place to deliver the commitments in the Plan. Examples of how the challenge and review by the PR19 Committee and the Board have resulted in changes to the Business Plan and the revised Business Plan are given in the Spotlight Box overleaf. A full audit trail of the Board challenges are provided within the Board Assurance Statement document.

Spotlight on: Examples of Challenge and Review on key plan decisions by the Board and PR19 Committee

Board challenge	Outcome
The Board challenged how Bristol Water would understand the likely changes in the cost modelling for PR19. The Board were also concerned that over=reliance on cost adjustment claims would provide a false sense of security, and the company would be left as a cost outlier at PR19. The response to the IAP focussed similarly on the internal analysis and external evidence, and the strength of evidence as to whether the efficiency gap at the IAP stage would be reduced with new evidence, and whether changes to the plan were now required.	The Board challenge ensured that Bristol Water worked with NERA to develop wholesale cost models as well as cost adjustment claims that were consistent. The final plan set out a range for how the past and future efficiency position may change, and the plan was based on what a challenging transformation programme could deliver. In advance of the IAP, the Board was appraised of the potential range of efficiency positions having received analysis from NERA and the executive following a review of company plans. The IAP response distinguished between areas where the Board were confident that sufficient evidence was available (such as the resilience enhancement investment), from technical judgements such as assumptions on future industry cost changes.
The Board challenged whether the performance commitments in the plan could be delivered in practice, and understood where the areas of greatest risk were compared to current performance. The Board understood that supply interruptions was the area that required the most improvement from current performance, but the Board wanted to understand a wide range of factors that suggested the need for ambition in this area. The Board also challenged the design of the outcome incentives, as this was a key area of financial and reputational risk if over ambitious targets were set that could not be delivered.	The investment plan and customer research both tested alternative scenarios, which identified that an ambitious target, based on the forecast of the upper quartile for the industry, would be both efficient and help deliver a wide range of customer desired outcomes. The PR19 process ensured those in the business were engaged and understood how this could target could be delivered. Together with the Board questioning how current performance and customer service response in incidents was managed, a clear investment and transformation plan was discussed with the Board. Board members when presenting the plan to Ofwat were clear that supply interruptions was the most ambitious target in the plan, but the plan as a whole, both efficiency and customer experience, benefitted from this ambition. The financial incentives proposed for supply interruptions in the plan were carefully developed through customer research. Members of the PR19 sub-committee attended research events, together with Bristol Water Challenge Panel members. In many cases management observed that the questions of the Board and the Bristol Water Challenge panel were similar on topics of future service levels and outcomes, and hearing the customer challenge and engagement process assisted the decision papers and process described in our Board Assurance Statement.

Following the IAP challenges on ODI design, the Board challenged whether the customer research was sufficient to retain the overall plan ODI risk, and whether it supported the principles that were applied to the revised plan proposals. The Board had considered the impact of the individual and categories of Ofwat challenges (such as incentive rates and deadbands), but the decisions also depended on the customer research evidence Ofwat had specifically requested.	The Chair of the Bristol Water Challenge Panel described how the sub-committee of the panel scrutinised the research during the design phase, were involved in pilot phases and discussed the results. They were satisfied with the quality of the approach. The management highlighted that the level of trust and perceptions of good service and value for money featured throughout our research, and clearly affected customer views on individual aspects of ODI design. Support for environmental ODIs such as biodiversity and community satisfaction, was built on trust in the base services (water quality, leakage etc.) and it was important that this was transparently explained to Ofwat. The rationale for the revised plan reflected a wide range of our research, but also considered the information revealed by scrutinising other company plans and IAP challenges, recognising the importance to consider the wider context of water, cross-company, aspects of water sector incentives design (even though this was not a significant factor driving customer decisions in our research).
The company specific adjustment to the cost of capital was a key challenge area for the Board, together with other aspects of risk mitigation proposed in the plan, including ODIs avoiding bill volatility, the financial and bill risk associated with the Canal & River Trust arbitration and the gearing level and voluntary sharing proposed in the business plan. The cost of debt uplift for a small company had been an area of dispute between Ofwat and Bristol Water at the two previous price reviews, which had been part of the reference to the CMA. The PR19 governance process placed much more emphasis on the Board understanding the strengths and areas of potential challenge, based on evidence that included a wide range of considerations, both in terms of financial resilience, but also third party review of evidence and customer support.	Management presented a wide range of evidence, including more than one source of expert advice. The evidence presented did not provide a definitive answer, but was based on the best available knowledge available at the time. For instance, evidence of the efficiency position based on the March 2018 Ofwat consultation on efficiency models, recognising that following the IAP in January 2019 the evidence would need to be considered again. This process allowed the Board to understand and challenge the response to Ofwat's IAP. Where management provided advice, for instance in how the notified item for the Canal & Rivers arbitration may work, the Board often made challenges in a way that enabled the management to get strategic partner advice, who could provide a context of past precedent or from their wider experience. With the notified item, Board members brought experience from other sectors that informed the challenge, which external expert review allowed confidence of the Board in the proposal, or management to refine the approach.

For the revised plan, the Board challenged whether the evidence on the small company premium was robust. They asked whether KPMG's analysis responded to Ofwat's challenges to their original analysis. Whilst the customer support was clearly robust, they also wanted to know how the uncertainty in the "benefits test" could be resolved, given it was a complex area with a significant degree of expert judgement required. The Board noted that they were comfortable that the principle that efficiently incurred debt for a small local company would have an additional cost, and with customer support it was reasonable to include it in a business plan and in financial resilience testing.	The KPMG analysis was available for the Board, and demonstrated that the minimum end of their range, having tested Ofwat's challenges, provided evidence that the company had a rationale for the reduced small company premium, other than just Ofwat's range. It was a small change from the financial resilience perspective. The approach to exploring the benefits test evidence further with Ofwat, given the short time for the IAP and the link to cost efficiency modelling, including showing a range of analysis, was a good balance for the Board between providing evidence and reflecting the uncertainty that any exploration of cost efficiency and benefits testing must involve. The Board were challenged by the chair of the Bristol Water Challenge Panel whether they could provide reassurance to customers that bills and service levels would not be at risk from the revised business plan, which the Board were able to provide because of the detailed challenges. The more recent Board members reviewed the original and final plan evidence supporting the Board decision paper and Board assurance statement before confirming their individual support, following consideration and approval at the Board of the revised plan.

Assurance based on three lines of defence

Our ambition is to ensure that all the information we communicate externally is accurate and secures the trust and confidence of our customers, stakeholders and Ofwat's assessment of our business within the Company Monitoring Framework. For these reasons we engaged early in formulating the required elements for assurance of the business plan, culminating with the Sub-Committee endorsing an approach in October 2017. An Assurance Framework was developed by an internal assurance function with support from PwC and was used consistently for all the elements of our business plan.

Following Ofwat update of Company Monitoring Framework in January 2019, Bristol Water was upgraded from Prescribed to Targeted status in January 2019. This was viewed by the Board and management as critical to delivering our future ambitions. Achieving "targeted" status is progress but not sufficient, and we are striving to elevate our position in the sector.

The Assurance Framework was based upon three principles:

- Targeted – at the areas that will determine the acceptability of the business plan and deliver a high quality plan
- Risk-based – assessing the risk for each element based on its impact on the business plan and its level of complexity
- Planned and Measurable – to provide the means of oversight as assurance of the business plan progresses.

The Assurance Framework utilised the 'three lines of defence' risk management model utilising a first line of operational assurance followed sequentially (and as required) by a second line of internal assurance and a third line of independent third party assurance.

The Assurance Framework was used consistently for the entire business plan programme and applied to the quality of the data that goes into the plan and also the quality of our activities, processes and judgements that are associated with generating that data. We applied the same approach and methodology to our draft WRMP.

The elements of the plan were identified, which were termed "Building Blocks", each with a corresponding operational business owner and sponsor in the executive team. Operational business owners assessed each building block using a consistent methodology based on the above principles and developed an Assurance Plan accordingly. The Assurance Plans specified the planned level of assurance to be achieved and the activities required to do so for each individual Building Block.

Levels of assurance were defined for consistency across the programme by reference to the extent, depth and completeness of assurance. The levels were informed, but not solely driven, by the number of lines defence used. Limited assurance required that internal and external expertise be reviewed by the operational business owner and the corresponding sponsor (a first line of defence). Moderate assurance required demonstrating a further process of assurance by management or a function with a degree of separation (a second line of defence) and may have included some independent assurance (a third line of defence). Substantial assurance required a wide scope of more detailed testing and validation including all three lines of defence. Full definitions are included in section C8.

The assurance plans were peer reviewed and challenged by both our internal assurance function and PwC and approved individually and as a whole for the programme by the executive team. The assurance function within the company was set up separately from the business planning programme team and with independent reporting lines.

This planned and consistent approach for each building block enabled oversight and challenge of the plan and is how we can be confident that our approach to assurance is comprehensive.

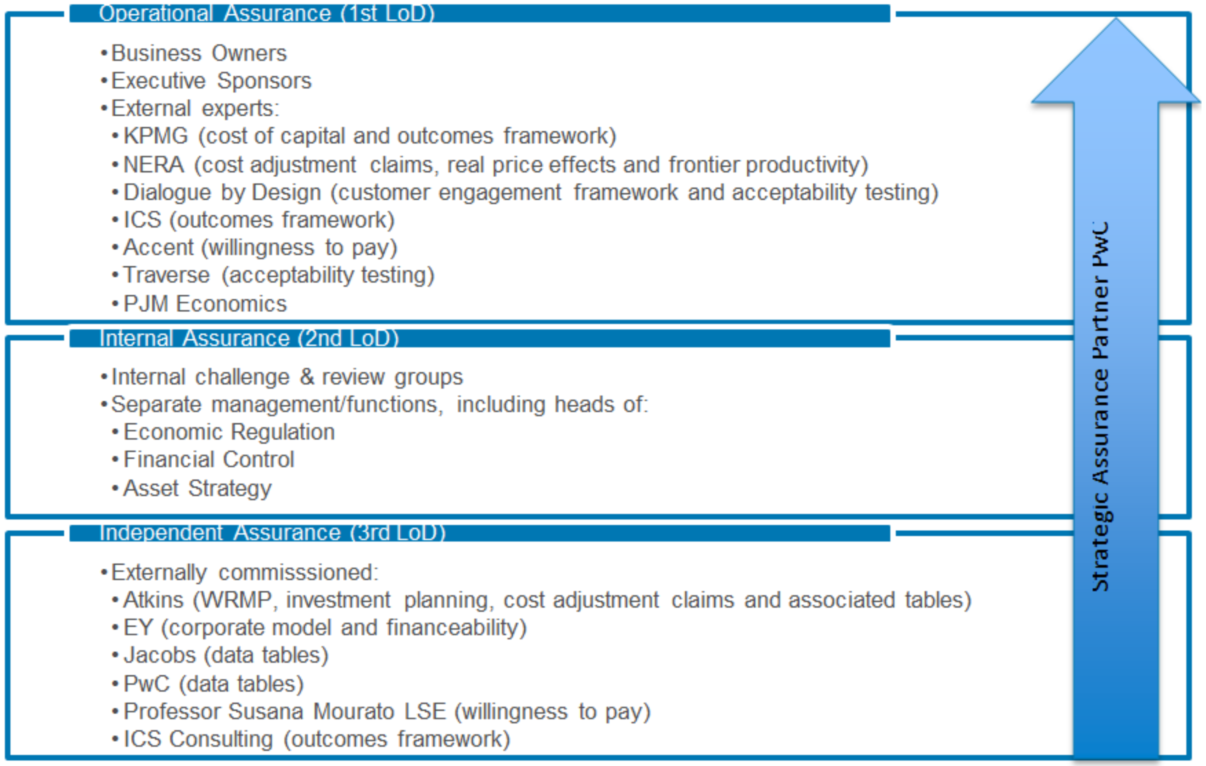
The programme of assurance was substantially completed as planned and where assurance needed to be tailored this was carefully considered and appropriate mitigations implemented. The full set of building blocks confirming the level of assurance planned and achieved for each is listed in appendix A.

All building blocks planned and demonstrated a first line of operational assurance explaining how assurance activity was carried by the business owner and their executive sponsor as the building block developed and finalised its contribution to the plan. The assurance completed at this first line of defence, whilst classified as Limited, were regarded as sufficient for some building blocks that included, for example, extensive input from external experts that had in turn their respective assurance processes.

The majority of building blocks also planned and demonstrated a second line of internal assurance undertaken by a separate management/function, or relevant challenge & review groups. The programme of internal assurance provided confidence in the development of the plan with the building block outputs being checked for accuracy and also consistency with other elements of the plan.

Finally (and where the requirement was clear) a number of building blocks also demonstrated a third line of independent assurance.

Our key providers of assurance for each line of defence are set out below. PwC provided strategic support for the overall process.



By virtue of the structured approach taken, the independent assurance carried out relates to those areas that have been judged and demonstrated to be critical to our plan and where the risk of deficiency was greatest. The independent assurance has been undertaken at a level assessed as appropriate to the risks and necessary to give us the requisite degree of comfort in the area of the plan. Given the importance of the elements covered by independent assurance in our statement, many of which are referenced in Part D, we have provided a more detailed summary in appendix B.

Based on the outcome of our Assurance Framework we can confirm that the extent that we can provide comprehensive assurance is appropriate.

The Board Assurance Statement has been updated to include a number of forward looking assurance statements.

Transparency and engagement

Steps we had in place, or have taken recently, to improve transparency include:

- Publishing a mid-year performance report including comparative information on our performance, recognising the need to improve transparency
- A new Board commitment to calculate leakage incentives without the benefit of technical data changes, and agreeing the approach with both the Bristol Water Challenge Panel, our CCG, and through the formal Ofwat process.
- Setting out a revised long-term ambition for Bristol Water in February 2018, which included a “trust beyond water” vision, setting out that in order to provide excellent customer experiences, we had to go beyond supplying water as a product. Our stated mission is “A company that our communities trust and are proud of. To deliver excellent experiences and create social and economic value”.
- The consultation and engagement on our PR19 draft business plan, which developed these themes on the future challenges for the business and society into specific proposals and choices. The scale of discussion and consultation, and over 4,000 responses on this stage alone, is central to our approach.
- Promoting the value of our water to society in a way that relates to wider resource efficiency messages such as reducing plastic, both through the Refill Bristol campaign and with our Water Bar.
- Publishing our PR19 business plan, which put customer and local community trust at its heart.
- On financial resilience, we made significant steps in our 2018 annual report to increase transparency of the challenges and risks to financing faced by Bristol Water, and the Board’s ownership of mitigating them. This featured heavily in our business plan and is a key feature in considering our revised plan in response to Ofwat’s IAP.
- Improved our performance for past failures, in particular making major steps that have been successful in reducing leakage, as well tackling the root cause of poor complaint performance. We provide a case study in our plan of the operational resilience this provides, building on the already strong performance evidenced in our plan in the “Willsbridge” case study and during the “Beast from the East” freeze-thaw events.
- Publishing the water sectors first ever social contract, alongside a thought provoking discussion document produced in partnership with ICS Consulting to look at the wider implications of our approach. We also hosted a major event to discuss the approach at Bristol Zoo, attended by many stakeholders as well as Bristol Water Board executive and non-executive Directors.

We will continue to develop our new interactive summary with provides customers with useful information (e.g. information on metering performance provides a link to how to apply for a meter). We think engagement is part of making sure we put customers at the heart of everything we do.

13.4 Confidence in delivery

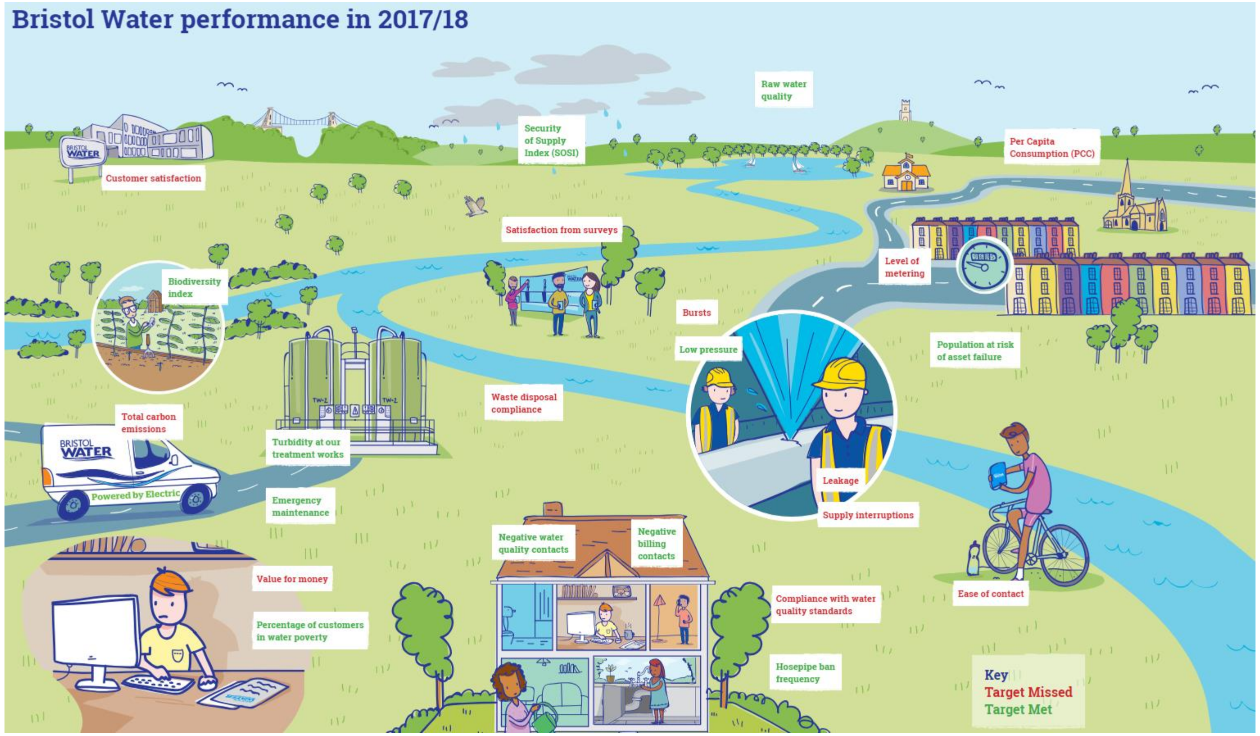
Our Business Plan promises to deliver much higher levels of operational and customer service performances at lower costs than the current period. We have been gradually improving our operational and customer service performance over the past few years. The future challenges however require further improvements in service and efficiency levels. We have embarked on a Transformation Programme to substantially improve our internal capability in people, processes and technology, as well as how we work and collaborate with our supply chain. Our approach to ongoing innovation is a strong example of how a small water company can be both creative in development of its own new ideas, and agile in adoption and implementation of others.

Past performance and current improvements

Bristol Water is on a journey to transform itself. Although trust has been maintained with our local communities and customers, we want to be regarded as a leading organisation known to excel at customer service and experiences in an innovative and efficient way. The trust of Ofwat and national stakeholders in our data, transparency and response to changes in the sector for a period of time has not been aligned with local views about the company. This is now changing, and we were recently nominated for “Water company of the year” at the Water Industry Achievement Awards. The transformation to date has seen significant improvements in efficiency, whilst retaining customer trust and the culture of the people working at Bristol Water, who see themselves as part of the communities they serve.

Transparency from Bristol Water about its progress and its response to operational challenges has been part of ensuring that customers are at the heart of the changes we are making. We published our 2017/18 annual performance and 2018/19 half year performance in an interactive and easy to use graphical on our web site.

Our improvement in Company Monitoring Framework status from “Prescribed” to “Targeted” also reflects another stage in improving wider trust in Bristol Water and its performance. Our revised plan builds on this further, as we have listened carefully to the feedback on our original plan and used the information to improve our plan where there is clear evidence that we should do so.



Board Assurance Statement

The following list of improvements in the current year are examples of how the changes in our culture and values, and our organisation and focus on performance have resulted in real operational improvements:

1. **Leakage:** Our leakage performance has improved substantially and following previous years of marginal failure against annual target, we forecast to report a leakage level at or below our annual target of 44Ml/d for the financial year 2018/19. This is mainly due to our early actions, increased leakage detection and repair resources, better leakage data collection, analysis and modelling, and management focus. We firmly expect this improvement to continue in the next financial year and forecast to beat the annual target again in the year 2019/20.

2. **Water quality:** We completed the calendar year 2018 with a Mean Zone Compliance of 99.99%, an improvement from previous year, one of our best ever performance results, and in comparison with other water company results published in July 2018, an industry leading position. Our Compliance Risk Index (CRI) continues to be one of the best if not the best in the industry. All these improvements are despite a very long hot and dry summer which resulted in record number of network challenges resulting from high demand and water mains bursts.

3. **Water resources:** We managed our reservoirs and other water sources well through the summer months and in contrast with other parts of the country who suffered from risks to supplies, continued to operate under our "Normal" water resource planning conditions throughout the summer and our customers were at no time at risk of water resource shortages. Our reservoirs continue to be in very healthy status currently and better than "Normal" status for the time of the year. This result was due to our close management of resources, optimising costs and risk to supplies continuously. We expect to continue to be in a healthy resource position throughout summer 2019.

4. **Supply interruptions:** Following a number of high profile water supply interruption events in the past 12-18 months, including the "freeze-thaw" events of March 2018, we have improved our response to incidents and have maintained our customers trust. We were pleased this was recognised in Ofwat's review of the "freeze-thaw" event, and agree that whilst we performed well in this incident there remains more to do.

5. **Customer satisfaction and trust:** Our customers high level of satisfaction and trust was illustrated by the July 2018 UKCSI ranking of Bristol Water as the top water company for customer satisfaction with a score of 79.6 (up from 77.4 in January 2018), above the UK all-sector average of 77.9. We also achieved the "most trusted utility" in this survey. Our position near to the top of the UKCSI rankings was maintained in January 2019, with the highest Net Promoter Score amongst utilities.

6. **Data and reporting:** Improving our "prescribed" company monitoring framework status in January 2019 by Ofwat was viewed by the Board and management as critical to delivering our future ambitions. Achieving "targeted" status is progress but not sufficient, and we are striving to elevate our position in the sector.

We provide case studies with our revised plan reflecting Ofwat's concern in the IAP as to the evidence on deliverability of the plan, and whether lessons had been learned from recent performance. These case studies provide evidence of what the Board are doing now, and how this provides confidence in the delivery of our future plans. We will not meet every target, as the plan is stretching, but customers are protected through the incentives and other mechanisms such as our social contract that we are accountable for.

Strong Executive Team

The successful delivery of the PR19 Plan will require appropriate leadership and management throughout. The strengthened and experienced Executive team under the new CEO Mel Karam, are highly experienced in driving improved business performance and will continue the demanding work that will be required to deliver this plan. The Executive team has a good mixture of those who have been with the company for some time and new members who bring additional experience including from other regulated infrastructure providers, as well as extensive experience of strategy, transformation and plan delivery in the water sector from a company perspective, as well as experience of economic regulation.

Transformation Programme, content, structure and accountability

Bristol Water continues on its journey of transformation. Over the past few years we have significantly reduced costs and gradually improved performance. We recognise that we still have a number of performance challenges which need to be resolved in order to deliver our ambitious plan. Trust has been maintained with our local communities and customers, and we aim to be regarded as a leading organisation known to excel at customer experience and service in innovative and efficient ways. The trust of Ofwat and national stakeholders in our data, transparency and response to changes in the sector has, for a period of time, not been aligned with local views about the company. This is now changing, and we were recently nominated for "Water Company of the Year" at the Water Industry Achievement Awards.

Our transformation programme has continued and over the past six months has been reshaped to ensure a more direct link between our programme of change and our business plan commitments. The programme is a central control-point for a wide range of improvement initiatives being delivered across the end of AMP6 and AMP7. Transformation provides our key delivery vehicle for the commitments we made in our Business Plan and provides a clear line of sight back to our Purpose, Vision and Mission, Strategic Objectives, and Values and Culture. This includes (but is not limited to) improving our customer service, operational performance, use of technology, and the way we collaborate with our supply chain and other partners.

Our core Transformation principle is that all initiatives have a clear line of sight back to the Business Plan, Strategic Objectives and Blueprint Design Principles. This core principle helps enable our transformation programme to be an accountable delivery vehicle that co-ordinates organisation-wide change initiatives. The programme is governed by a Steering Committee chaired by the CEO and made up of the Executive Directors from across the Business, each providing sponsorship for their respective areas. We have re-focussed our programme into four key pillars, putting greater emphasis on the values and culture of our company to deliver our purpose.

1. **Our culture and Values:** Our values help us achieve our purpose, our vision, our mission and our strategic objectives. They describe who we are and who we want to be. They are our compass and they help us navigate our journey.

2. **Customer:** Our Customer programme delivers on our Business Plan outcome of Excellent Customer Experiences (supporting our aim for Bristol Water to be Number 1 for Customer Experience). This is underpinned by extensive customer engagement to provide clarity on our customers' needs, and a robust prioritisation methodology to drive the sequencing of activities. The programme is made up of over 200 customer initiatives.

3. **People:** Our People Plan has been developed to identify and grow the core competencies and ways of working required to meet our Business Plan commitments by 2025. This includes Organisation Design, Leadership and Capabilities, Performance, Reward and Recognition, and Career Development.

4. **Supply Chain:** Our NMSC programme will replace our existing Network Maintenance contract to ensure we can deliver the performance required for us to meet our

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customer and ODI commitments, and performance and efficiency targets identified in our Business Plan 2020-2025.

Our transformation programme is underpinned by a number of key enabling programmes, including our IT Vision 2025 programme, departmental improvement programmes and Outcome Delivery Strategies. We have provided a detailed addendum to C7 which provides an update on each of the four pillars of our transformation programme.

Innovation and Continuous Improvement

One of the design principles in our Transformation Blueprint is:

"To operate leaner processes, to innovate and use technology to achieve better customer service and operational results, right first time, with no failures, duplication or wasted effort."

We were pleased to see our approach to innovation, and the continuous improvement culture, noted as an example of good practice in Ofwat's IAP. Our open innovation framework combines internal employee scheme "Brainwaves" with external collaboration through our start-up business incubator. These were described in our Business plan at length. Since then we have two further initiatives described below.

Lean Competency System – a water industry first

We don't simply want to undertake stand-alone interventions to improve our processes, we want to ensure that those interventions sustain, that our staff are equipped to continuously seek improvements and that we operate a culture that constantly strives to better everything we do. We have built an in-house process improvement team, Business Improvement and Innovation, that are accredited to train and certify our staff in the Lean Competency System (LCS). LCS is a qualification developed by the Lean Enterprise Research Centre of Cardiff University Business School. At its core, Lean is about delivering exactly what our customers want. Lean businesses seek to continuously improve the way that services are developed and delivered, to create more efficient working practices and obtain better outcomes for both internal and external customers. Achieving the qualification is not just a theoretical effort; everybody that undertakes LCS has to complete an improvement project and demonstrate the tangible difference they have made to the service we provide our customers. We are the only water company in the industry with the in-house accredited capability to deliver this qualification to our staff.

The Workshop – collaborating to embrace new business innovations

The Workshop is our approach to learning, not just from those that set best practice for today, but from those that are trying to set the best practice for tomorrow. We do this by incubating startup businesses that are working to develop new, leading and emerging solutions that can help solve our innovation challenges. Businesses can take advantage of Bristol Water's equipment and facilities, access to data and physical assets, access to IT and communications expertise, access to legal advice and financial guidance to scale in a supportive environment, removing the risk associated with the early phases of growth. The initiative is a great way to develop Bristol's entrepreneurs and support the economy. We have done this by establishing a number of supporting partnerships with Business West, Enterprise Europe Network, and the West of England Growth Hub.

The incubation of leading startups provides a means for us to obtain services that are not yet commercially available on the market and to work with individuals that challenge our company and our employees to adopt the most leading practices. It was through this initiative that we were able to build our robotic process automation capability to drive operating efficiencies into the business. We have just started incubating a machine learning business to continue on the same journey and are speaking to a number of promising startups with a range of solutions such as pro-active leakage detection, non-intrusive asset health monitoring, rain water harvesting etc.

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We have also responded to the HMTreasury consultation on innovation in regulated sectors to highlight the degree of innovation that the PR19 methodology and outcomes framework can allow, an approach we believe provides resilience and opportunity for water companies.

13.5 Commitment to Ofwat's "Putting the sector back into balance"

We fully commit to both the direction of travel and the specific requirements Ofwat have set out in "Putting the sector back into balance". We believe we have provided areas of significant leadership in corporate governance, supporting licence and regulatory changes, and in engaging customers, stakeholders and our people on the culture, purpose and values that "sector balance" requires. We have not waited for the outcome of PR19 to make these changes – we agree with the original "sector balance" letter from Rachel Fletcher to company CEOs that a significant "change in gear" in the sector was required to restore trust and legitimacy. This has, in any case, been a pace that Bristol Water has had to have for its own challenges.

We support the matters raised in the "sector balance" implementation letter both in principle and in practice. The specific challenges to several companies to put the sector back into balance did not in practice apply to Bristol Water as we were already in line with all Ofwat specific expectations. As noted above we were taking action for our own current delivery and for PR19 to be clear about how we will provide confidence that this will continue to be the case. We made positive suggestions for the PR19 "sector balance" consultation and the Board will take the outcome into account for their final plan decisions. We also believe we have made positive suggestions for the necessary licence changes, such as in the recent "change of control" consultation.

We have more to do, and our priorities are to address issues that are specific to Bristol Water rather than directly arising from the sector back into balance priorities. Recent changes at Bristol Water are driven by changes that have customers at the heart of them, supported by both new shareholders and a very different Board and governance structure. The Board has been supported through its recent journey by our long-term investors, with iCON Infrastructure embedded as the main shareholder.

In the statements below, we set out how we have committed to current and future actions to meet Ofwat's "Putting Sector Back Into Balance" expectations:

- Gearing has fallen from 75.1% in March 2015 to 64.4% in March 2018, or 61.9% excluding preference shares. The reduction in gearing has been achieved through the Board's implementation of a conservative dividend policy following PR14, with shareholders' support, to build equity and thereby increasing financial resilience. For the period 2020-2025 we plan to maintain the gearing below the 70% threshold required by Ofwat.
- Dividend yields have been an average of 1.8%, which is below the 4.0% Ofwat assumed at PR14 for 2015-2020, and these dividends have been reinvested within the group rather than being paid to ultimate shareholders. Our revised dividend policy is set out in Chapter 10 and as can be seen, we confirm that they comply with Ofwat requirements. We confirm that we are committed to adopt the expectations on dividends for 2020-2025 as set out in 'Putting the sector in balance'.
- Our Executive Remuneration Policy is set out in Chapter 10 and as can be seen, we confirm that they comply with Ofwat requirements. We confirm that we are committed to adopt the expectations on performance related pay for 2020-2025 as set out in 'Putting the sector back into balance'. This includes clear explanation of stretching targets and how they will be applied; and commitment to report how changes, including the underlying reasons, are signalled to customers.

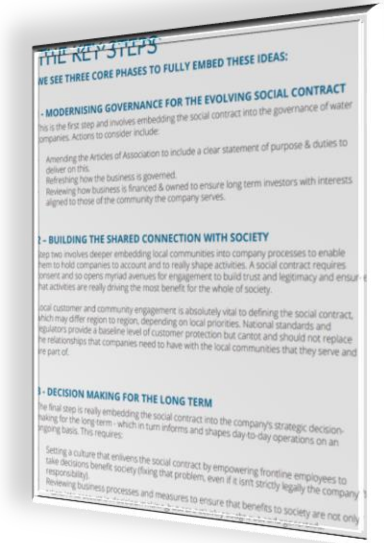
- Board has given the commitment to publish detail on dividend policies in the Annual Performance Report and to signal changes to stakeholders.

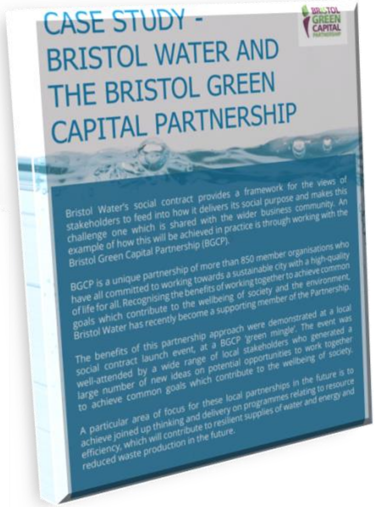
We have also responded to DEFRA's consultation on licence changes, with positive suggestions that would support more effective licence changes, including allowing changes to be made prior to any CMA referrals where a majority of companies support them, as well as enough flexibility for non-contentious changes to be made quicker..

13.6 Our Social Contract

Our PR19 business plan explained our proposal to implement a sharing mechanism under the title "Bristol Water for All". Our proposals continue to evolve and our thoughts are now embedded in a specific "Social Contract" mechanism. In part this reflects the history of Bristol Water, and is reflected as a modernisation and refining of the sector balance, and should not really be seen as a new regulatory expectation. Our social contract establishes our social purpose; "to have a positive impact on the lives of our customers, our communities, our colleagues and on the environment beyond the delivery of pure and reliable water."

In February 2019 we commissioned a joint report with ICS consultants as a discussion document on the purpose and nature of a Social Contract for the sector. Titled "Social Contract: A revolution or an evolution", it reflected on the historical precedencies for a social contract and laid out the key steps the sector should take to develop a social contract with its customers and stakeholders, its communities, its employees and the environment. The report included case studies from the partnerships Bristol Water has embarked on, including the most recent partnership with Bristol Green Capital.





Our proposals for a Social Contract and our revised Bristol Water for All sharing mechanism are set out in Chapter 10.

The reinvestment fund would be used to:

a) fund additional social tariffs above the customer level of support at the time (currently 75% of those potentially eligible) in the business plan,
b) be used for additional community initiatives (added to the list in the social contract and satisfaction measured through the community satisfaction ODI) or
c) Potentially be used to offset any cost risk that arises from payments to the Canal and River Trust within our risk mitigation proposed with this plan.

These options have been derived through our original acceptability customer research.

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13.7 Board journey since 2015

In this section we summarise the recent journey of Bristol Water and its Board. For each challenge, we set out the Board's action and the outcome and lessons learned that arose. The balance of involvement of the executive directors, independent non-executive directors and the shareholders varied depending on the challenge faced. This is shown in the diagram opposite.

In the table overleaf we illustrate how the balance of Board has changed, enabled by the change in shareholders in 2016, and how the strengthening of the executive, management team and the independent non-executive directors has arisen as the challenges and the response to these challenges has developed.

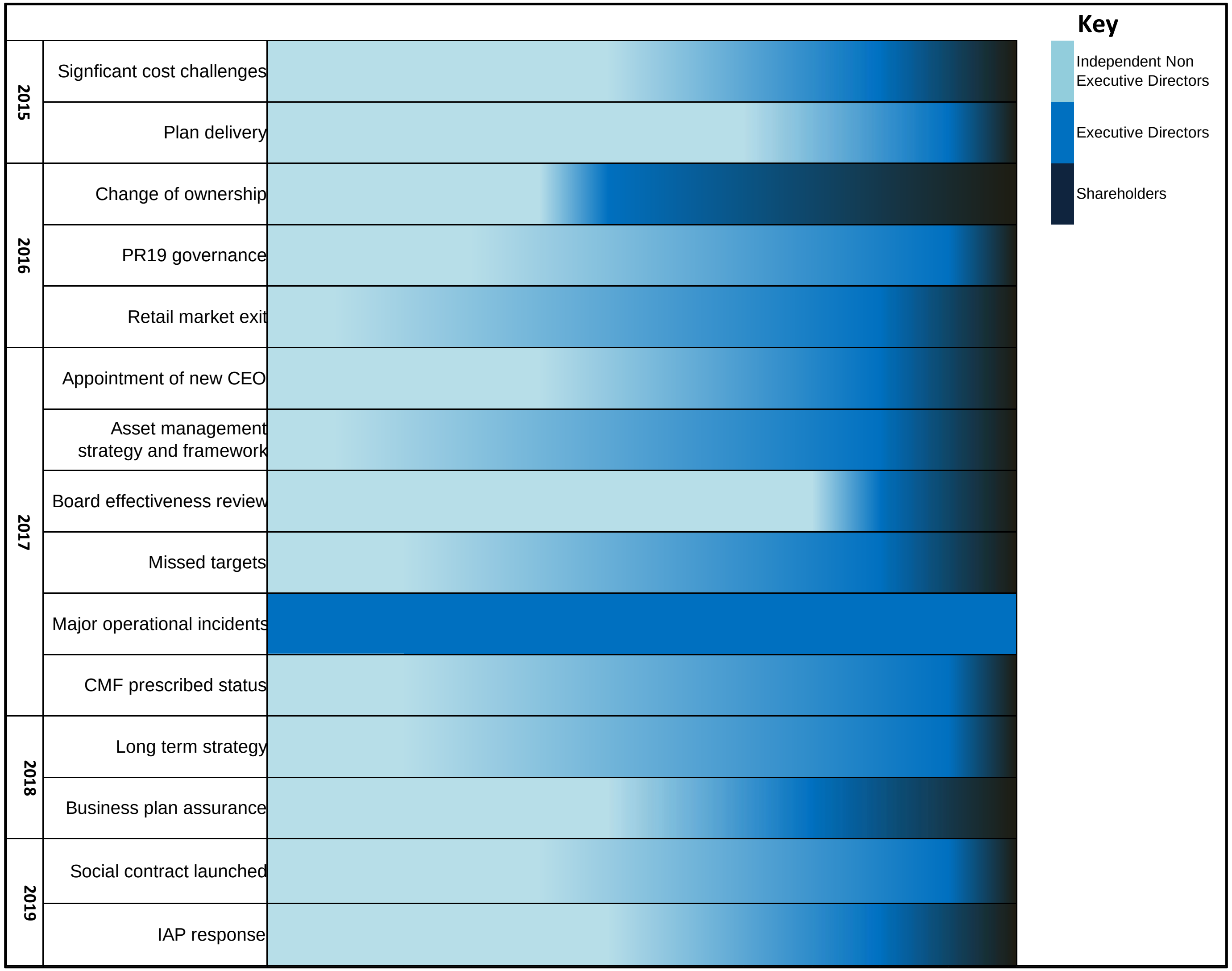

Figure 162: Balance of involvement of INEDs, Executive Directors and Shareholders

Time	Challenges Facing Bristol Water	Board action	Outcome and lessons learned
2015	Significant cost challenges following PR14 CMA determination	Significant business restructuring to meet cost targets	Transformed cost base as focus of business delivery had to change quickly to close efficiency gap. Closed final salary pension scheme. Focus on need for continuous improvement and innovation, which enabled subsequent transformation projects and the "Brainwaves" staff led approach to innovation.
	Ofwat concerns about plan delivery - given quality of information during CMA process - results in prescribed status	Replacement of Strategy & Regulatory Director	Concerns on Bristol Water's national reputation and the impact on its local reputation became apparent. Led onto 2016 PWC review of PR14 business plan
2016	iCON infrastructure acquire 80% shareholding of Bristol Water	Transition led by Chairman for new shareholder arrangements	Initial due diligence resulted in need for business transformation - governance, health and safety, performance management. Alignment of shareholder investment strategy with transformation needs of the business allowed progress to be made.
	New Governance needed for PR19	2016 PWC review of PR14 business plan	Customer led strategy for developing PR19 plan. Appointment of a strategic assurance partner to enable the Board to have confidence in sign off of business plan. Separation of roles between plan production, reporting to CEO, and strategy and challenge of the plan by the Executive
	Exiting the retail market to Water2Business, formed naturally out of the existing separate Bristol Wessex Billing Services joint venture	Strategy focuses on customer service and compliance for the new market	High performing wholesale service desk with excellent relationship with retailers, instrumental in forming Retailer and Wholesaler Group (RWG).
2017	New CEO required following replacement of Agbar who had management control with 25% shareholding	Appointment of Mel Karam	New executive team in place between April 2017 and October 2018. This broadens the mix of skills, with an experienced executive with infrastructure and water sector experience, including a track record of leadership in delivery in larger organisations than Bristol Water.
	Need for asset management strategy and framework to move beyond immediate need to meet 2015 CMA cost targets	PA consulting assessment. KPMG assist design of new asset management organisation model to deliver the recommendations	A new asset management function based on work towards a mature, world-class model is put in place as part of the progress being undertaken in terms of the options being developed and considered for the PR19 business plan
	Board effectiveness review	External review confirms compliance with Governance Code. The review made recommendations relating to the skills and experience of Board members, to better support the delivery of a customer and local community stakeholder strategy.	Board changes implemented during 2018. By October 2018 replacement non-executive directors and a new CFO in place, as Board changes continued. The new Board were inducted and took full involvement in the IAP response decisions.

Time	Challenges Facing Bristol Water	Board action	Outcome and lessons learned
2017	The impact of meeting the 2015 cost targets, combined with adverse operating circumstances, sees leakage and supply interruption targets missed, customer complaints begin to rise. Planned increase in meter optants does not arise due to late start and these operational and service pressures.	Additional resources are recruited to deal with the short term operational pressures. Increase in direct employment and control (e.g. leakage inspectors). Improvements plans built into PR19 plan, and then into the transformation programme (including the customer experience plan, people plan and network maintenance and support contract.	Recognition of the change in operating model reflected in the PR19 plan. Engagement with the people within Bristol Water through these changes aided by re-recruitment of key experts. New skills (e.g. to reflect innovation) also developed. Recognition that future workforce skills (and engaging future customers and employees) would form part of long-term strategy.
	Major operational incidents - Willsbridge Burst and Clevedon precautionary boil water notice. "Beast from the East" freeze-thaw event	Customer trust maintained and enhanced during the major incidents. Learning points still arise, in particular customer complaint handling where day to day jobs are postponed. These incidents were handled well from the perspective of Environment Agency and Drinking Water Inspectorate, working relationship between the company and those regulating water quality and the water environment being positive as performance was maintained in these areas throughout the changes in Bristol Water over 2015-20.	Improved operational resilience even though event performance was good. Case studies show how more recent operational incidents result in a response that anticipates customer potential customer impacts, rather than reacting to events. Network monitoring can now begin to predict events, using innovative calm DMA technology which minimises network operations (in particular pumping) costs and provides an early warning of when to mobilise operational response.
	Company Monitoring Framework "prescribed" status maintained, following lack of clarity on leakage outcomes reporting, and gaps in external assurance scope.	Greater transparency of reporting steps already taken in anticipation of this outcome, including the mid-year performance report and interactive performance graphic. Improved data sign off and better use of external assurers and transparency and governance of the reporting put in place.	PR19 plan benefits from both increased transparency and improved data quality. Bristol Water Board makes commitment to dual-report leakage, but to calculate ODI incentives based on approach which means incentives calculated without the benefit from lower leakage from improved data quality. Ofwat promote Bristol Water to "targeted" status at next CMF review in January 2019.

Time	Challenges Facing Bristol Water	Board action	Outcome and lessons learned
2018	Board ownership of long term strategy	Board set strategic objectives for new executive team to develop. Reflected in Transformation plans being developed in parallel and as inherent part of business plan	Bristol Water…Clearly set new long-term ambition, developed with stakeholders by Executive and set scene for extensive PR19 draft business plan consultation. Provided framework for Board PR19 decisions.
	Board ownership and assurance of the PR19 business plan. This needed to be done in parallel to the transformation plans	Despite Board changes during the process, the PR19 plan is agreed and assured by the full Board.	Investor nominated Directors engaged directly with customers and the Bristol Water Challenge Panel due to the transformation and the need to balance financial resilience, including the CSA cost of debt adjustment. This helped to ensure financial decisions were as grounded in customer views as service decisions.
2019	Demonstrating to local external stakeholders that the focus of the company has moved away from a focus on national regulatory challenges. Engagement of people in the purpose (and strategic objectives) set by the Board, who are accountable for its delivery.	Social contract launched, which emphasises local resilience and people change contributions to the transformation plan for Bristol Water.	Focus on continuing efficiency and service progress, to not only meet 2025 challenges but to a long term approach that is resilient to future national framework and local societal changes. Themes align with local stakeholders and Customer Forum. Specific non-executive director with local community, customer and employee focus provides clear link to Board governance.
	IAP challenges Bristol Water to demonstrate that it has learned lessons from past delivery, and the stretching targets in the plan can be delivered. The IAP challenges extend to Bristol Water Board's response to additional stretching efficiency targets (service levels were recognised as already stretching). A key aspect of financial resilience is whether the Company Specific Adjustment to the cost of debt is justified according to Ofwat's three-stage appraisal approach, and whether the financial resilience would be in place without it.	The response to the IAP challenges provided context for the Board to reconsider future efficiency assumptions, as well as considering the design of outcome incentives. The Board agreed a framework for considering the CSA evidence, which is reflected in the IAP response. The Board set criteria between understanding what transformation progress could deliver - where performance such as leakage had improved then this was reflected in the revised plan. The shareholder nominated directors focused on the financial resilience aspects, based on executive team analysis and advice, including revised customer research. The Bristol Water Challenge Panel engagement was with an independent non-executive director, whilst maintaining the attendance of the chair at the full Board, as per the assurance framework for the original plan.	With the Board changes completed, the roles during the assurance process had changed, but the Board assurance steps and process matched those successfully undertaken for the original plan. This is reflected in the revised Board Assurance Statement. The improvements to asset and corporate risk management are reflected in an update to the resilience maturity matrix that helped the Board address the area of the plan where Ofwat had the most significant concerns.