Bristol Water

Response to PR19 Draft Determination

30 August 2019

BW01 Overview document

Contents

1 Executive summary

Our business plan reflected our vision to improve customer experience and trust through service improvements, reduced bills and our wider contribution to the wellbeing of society. It reflected a number of tough decisions and a carefully considered balance between the pace of transformation on service and cost, trust and legitimacy from customers, stakeholders, employees and investors, and financing. Our business plan (actual) financial ratios were tight and underpinned by the support of our investors, such as retaining equity and reducing gearing in recent years.

We carefully balanced each of these considerations during a period of ongoing transformation for Bristol Water. Delivery of the plan was acknowledged by Ofwat as ambitious, and at IAP stage the delivery of some areas of our plan was questioned. Since then we have made progress, in particular on leakage, but have more to do, which requires continued investor support.

We have analysed the draft determination in detail and sought expert advice where required to inform our analysis and bring an external perspective to our response. As a whole, the evidence points to a draft determination which is not balanced - it does not reflect customer priorities and is not financeable for us, or any small local water company like Bristol Water. We think a holistic approach for our response is important, as the draft determination felt to us like a series of technical judgements and interventions, without being considered as a whole.

We provide further evidence as part of our response, but also recognise where the balance of information meant we could challenge our own plans further. In particular, we have included an additional £15m of efficiency challenge compared to our revised plan, which we believe closes the gap to Ofwat's modelled view of an efficient company. Our ongoing pace of transformation provides us with confidence that we can meet this additional challenge, which takes the total efficiency savings assumed within our plan to £80m. We evidence a wide range of reasonable adjustments to Ofwat's efficiency assessment that, together with our cost reduction, mean we are confident that our plan is both efficient and deliverable.

In relation to the efficiency assumptions in the draft determination, we are disappointed that it continues to ignore the consistent evidence provided to Ofwat on cost price pressures and in the poor quality of evidence Ofwat rely on for the totex/outcomes frontier shift. There is no supporting evidence for a 0.5% p.a. totex/outcomes frontier shift, even if a totex efficiency and balanced outcomes incentives framework had been reflected in the draft determination. In collaboration with NERA, we have provided further review of Ofwat's approach to relative price effects and frontier shift.

In our response to the draft determination, we provide detailed evidence on three specific areas of expenditure – on Traffic Management Act costs, resilience enhancement and strategic water resource development. We also respond to Ofwat's late changes to the treatment of developer costs and income, which is an area that requires further discussion between Ofwat and the industry given the number of errors identified during the consultation period.

We also provide further evidence to support our cost adjustment claim for purchase of water from the Canal and River Trust. An allowance for these costs was made by the CMA in its redetermination of our PR14 price controls, and in Ofwat's PR09 determination. The evidence for this claim is comprehensive and compelling.

On outcomes, Ofwat has made a large number of interventions, despite our proposals being developed bottom-up through extensive customer engagement and research. Ofwat's approach, we believe, is in danger of adding cost to the industry in the long-run and risks reducing customer trust. It puts excessive focus on what the regulator thinks, irrespective of the evidence and research that a company carries out.

Our revised business plan represented a carefully balanced package of service improvements and incentives across common performance commitments stipulated by Ofwat in the Final Methodology, and bespoke commitments that were meaningful and important to customers. Maintaining this balance has been paramount when considering our response to the interventions at the draft determination. Our main challenge is that Ofwat's approach at the draft determination does not reflect our customers' views.

It has been a difficult task to maintain an overall balance of risk and return, given the range of Ofwat outcome challenges (at the IAP) and interventions (at the draft determination). Ofwat has ramped up the interventions as the process has evolved, and changes that were not even considered at the initial assessment have had unexpectedly large impacts. We could ignore this in our response, given the errors we have found in the analysis (and often acknowledged when we asked for clarification). We have considered them all, and made positive proposals wherever possible, based on evidence, that are consistent with Ofwat's stated PR19 methodology and produce a reasonable range of underperformance incentives.

On the cost of equity, Ofwat's analysis is thorough at component level, but the outcome is lower than a top-down review using compatible assumptions would support. We believe a reasonable estimate for the industry lies in between the draft determination and December 2017 early view, rather than lower than the draft determination level as Ofwat indicates. Not allowing our company specific cost of debt is a further challenge for us, with opaque tests that can change conclusion from the slightest amendments to Ofwat's PR19 approach. From our perspective, the additional cost is well justified as has always been the conclusion at every previous price review, with no change in our circumstances since.

Ofwat requires the Bristol Water Board to provide assurance on the financial resilience of the company under a range of scenarios, including for a lower cost of capital than used in the draft determination. We show scenarios which confirm our conclusion that our draft determination response is necessary for financial resilience. We provide financial resilience assurance on this basis.

The conclusion of all of our assessment is that our draft determination response position on the cost of capital is necessary for efficient notional financing for the industry as a whole. We also demonstrate that it is necessary for the actual financing of our efficiently incurred embedded debt. We demonstrate that, even with assumptions on efficient cost and successful outcome delivery, a 4% equity return is insufficient to cover our efficient forecast debt costs, even without any equity returns. The financial ratios Ofwat uses in financeability assessment at the draft determination show a positive picture for Bristol Water compared to other companies – Ofwat's assessment is flawed, and Ofwat should consider the alternative cash interest cover ratio.

The impact of our response on customers would be that they get all of the service improvements they had sought from us, at a cost that sees the average household bill reducing in real terms by 5% in 2020 and 10% by 2025. We think this would represent a great outcome for customers from PR19, and as a company we continue to make the transformation we have committed to that will allow us to deliver this. We summarise in this overview to our response the information we are providing to allow a thorough review of the key points necessary to achieve the realistic outcome we seek.

2 Introduction

In this document and the accompanying detailed representations we set out our response to Ofwat's draft determination for our business plan for the period 2020-2025. This follows:

- the publication of our future ambition document in February 2018;
- the publication of our draft business plan for consultation in March 2018;
- the submission of our business plan to Ofwat in September 2018; and
- our response to Ofwat's Initial Assessment of Plans in April 2019.

We have set out our response to Ofwat's draft determination in this overview document, together with three further representation documents.

- **BW02** – Cost and efficiency
- **BW03** – Delivering outcomes for customers
- **BW04** – Financial issues

In addition, we provide supporting data and evidence in the form of technical annexes and reports.

We have completed Ofwat's representation proformas and provide these alongside our response. We have also re-submitted the data tables requested by Ofwat in RP4 of its company representation proforma, together with further data tables which are materially impacted by our response.

We have undertaken additional customer engagement activities as part of our response, which we provide in the documents listed below.

- **A3f**. Customer Forum August 2019
- **A39**. Social Tariff research August 2019
- **A40**. draft determination ODI research August 2019

We have included reports from third party experts who have helped shape our response by providing an external viewpoint and insight, to challenge as well as inform the response points we make:

- **BW02-1** to **BW02-3** - NERA reports on efficiency, frontier shift and real price effects, and the C&RT cost adjustment claim
- **BW03-1** - ICS Consulting collaborated with us to produce a think piece on water sector incentives
- **BW03**-2 ICS Consulting provide a high-level assurance of Bristol Water's ODI computations
- **BW03-3** - Professor Jeni Colbourne MBE carried out an appraisal from the perspective of the long term challenges for delivery of water quality
- **BW03**-4 A full list of our WINEP delivery profile schemes sets out the names of the included schemes, the relevant driver codes, completion dates as well as other pertinent information (where applicable)
- **BW04-1** - KPMG report on the company specific adjustment to the cost of capital testing methodology
- **BW04-2** – Ernst & Young independently consider our financeability
- **BW04-3** - Economic Insight report on the approach to the weighted average cost of capital

The full structure of our response and Ofwat intervention referencing is provided in the document ***Guide to our response to Ofwat's draft determination.***

3 Context

Our business plan was a tough balance and reflected a stage of transformation for Bristol Water. The delivery of the plan was acknowledged by Ofwat as ambitious, and at IAP Ofwat questioned our ability to deliver some aspects of our plan. Since then we have made progress, in particular on leakage, but have more to do. We continue to have excellent support from our investors. The draft determination however is not balanced – in our view it pays insufficient attention to local needs and customer priorities and is not financeable for us, or any small local water company like Bristol Water.

3.1 Our context

We produced a business plan that was thoroughly tested. It was driven by improving customer experience, both of water and the wider contribution to the wellbeing of society. Our plan was founded in extensive customer research and engagement, which Ofwat recognised in its IAP response. We have continued this approach in responding to the draft determination.

Our plan was challenging and ambitious – we arrived at a difficult balance of:

- Transformation – improving services through better base operations, whilst also reducing our cost base and modernising our approach, in particular to contracting.
- Trust and legitimacy – taking our investors and wider stakeholder needs along the journey – reflected in our social contract.
- Financing – with tight actual financial ratios in the context of current market rates for a plan that did not require significant new financing. We could only be as ambitious as our plan allowed due to the support of ICoN, such as retaining equity and reducing gearing in recent years.

Bristol Water has a different recent history to other companies – it has invested in resilience, and has industry leading levels of leakage and network supply resilience, particularly for water resources. We lead the industry on the key DWI CRI & ERI water quality metrics.

This was reflected in a plan that was not driven by enhancement investment. Ofwat allows costs as enhancement for other companies, where there are DWI concerns on performance. These are areas of service that are within our base cost, and where our stretching outcomes for water quality contacts have to be delivered from. Ofwat in the draft determination imposes outcome incentives, not linked to customer priorities, based on measuring efficiency separately for base and enhancement costs, whilst intervening based on comparator forecast levels of performance.

Without totex modelling, and without taking into account enhancement efficiency in base cost assessments, our base efficiency challenge in the draft determination goes beyond credible levels, particularly when the outcome delivery interventions are overlaid on top.

In many places throughout PR19 and in the draft determination, Ofwat recognises that our plan was driven by balancing totex and outcome delivery for customers:

- We have very little spend reallocated by Ofwat
- We are at the frontier of efficiency where efficiency models for enhancement are used
- We had very low opex from enhancements, as we took into account the net savings on base in this enhancement spend, such as for the water treatment savings from catchment management

Ofwat does not take sufficient account of this in considering our base efficiency modelling position.

As part of our response to the draft determination we have continued our approach of shaping our plan through conversation with customers and stakeholders. In particular, we have continued to engage our Bristol Water Challenge Panel (BWCP) and our Customer Forum, as well as undertaking additional customer research to inform our response. Our Challenge Panel has continued to challenge us to ensure that our response is focussed on delivery for customers.

3.2 Context of the draft determination

We support the overall approach and methodology applied by Ofwat and whilst we think it is entirely appropriate for Ofwat to challenge the bottom up components of our plan – what we would like is for the evidence to be considered as a whole (rather than a series of individual tests and action) to identify what is reasonable, whilst still stretching and challenging overall.

There are many aspects of the draft determination which we welcome. It is clear that Ofwat has considered the Bristol Water specific issues and evidence we presented in our plan and our response to the Initial Assessment of Plans (IAP), including the extensive customer participation and engagement. We welcome the confirmation of the annual ODI incentives caps to avoid bill volatility and the Notified Item proposed for C&RT arbitration outcomes.

Responding to IAP feedback - Ofwat recognised that we had responded to the IAP feedback on both outcomes and costs. We take the opportunity to repeat this approach in our representations. Ofwat has produced extensive feedback for companies to consider, and the draft determination response has been a challenging timescale. We highlight in our response those areas where Ofwat has not provided sufficient clarity to allow us to provide a conclusive response and we suggest further dialogue where this is the case.

Retail plan - the draft determination reflects our revised plan on Retail. As Ofwat's approach to efficiency modelling appears to be robust, and we have tested the models for the latest 2018/19 data which confirms this, we have no residential retail control cost or financing representations to make.

PR14 reconciliations - Ofwat agreed with our PR14 performance adjustments, and allowed a small reward on SIM. We have updated the draft determination model versions for our APR PR14 reconciliation submission and provide these and an updated financial model as part of our response.

Confidence in delivery - Ofwat had recognised increased confidence on our delivery plans for leakage, customer complaints and supply interruptions – one of the key IAP challenges where there were significant concerns. We provide further information and transformation progress updates as part of our response.

Innovative performance commitments – Ofwat confirmed our "local community satisfaction" outcome, along with others such as biodiversity index and raw water quality, in addition to supporting our evidence for outperformance payments for these metrics. We welcome Ofwat's support for these innovative outcome incentives, which boost long term planning and systems thinking.

3.3 Ofwat's key interventions within the draft determination

Ofwat's key interventions together with an overview of our response are given below.

Efficiency modelling - Ofwat's efficiency modelling expects us to reduce totex costs by 13.6% (£69m) compared to our revised plan. We have reviewed Ofwat's models and cost challenges and assessed the degree to which the efficiency challenge is robust to alternative assumptions. We present our analysis and how we have adjusted our costs to reflect the element of challenge we believe to be well evidenced and deliverable.

Making 37 individual interventions to outcomes

Including:

- **Removing the financial incentives** on the population at risk from asset failure performance commitments. We provide evidence of the asset strategy and customer support for our original proposals, but amend our approach to reflect Ofwat's preference for output correction mechanisms.
- **Increasing the strength of financial incentives** for performance commitments, including leakage and supply interruptions. We recognise the validity of the question Ofwat poses, but we are confident of the strength of our analysis and respond based on the balance of the evidence. We make positive proposals wherever possible.
- **Increasing underperformance rates** in areas where the company is currently perceived by Ofwat as a poor performer, such as mains repairs. We re-present our extensive analysis and delivery plan, and challenge the logic of Ofwat driving mains bursts across the industry lower, without considering differences in assets.
- **Increasing the range in RORE** - The net impact of the changes to ODI rates in the draft determination is an increase in the RORE range from +0.9% to -2.5% to a stated +1.0% to -3.5% (in reality -4.6% is a more accurate assessment of P10 risk). Ofwat recognises in the draft determination the need to calibrate the RORE impact of the incentives back to an appropriate level. We provide extensive evidence that the 2.5% in our plan was appropriate, and that the 3.5% P10/P90 range in the draft determination went outside of Ofwat's stated methodology, and was also much wider than applied to other companies.

Rejecting cost adjustment claims - Ofwat did not accept the cost adjustment claim for the additional cost of the Canal & River Trust supply to Purton at this stage, despite it being accepted at the IAP stage and at previous price reviews and CC/CMA appeals. We continue to provide extensive further evidence that demonstrates that the water supply costs are unique and making this adjustment is necessary to accurately assess efficiency.

Rejecting the company specific adjustment to the cost of capital – Ofwat did not agree with our company specific adjustment for cost of debt allowance. Ofwat accepted the customer research and adjusted some of its modelling approach, but this remains another aspect at PR19 that has been decided, in Bristol Water's favour, at previous price reviews. We show why the draft determination challenge on the range was unreasonable, and update the benefits approach to correct for errors and unsupported assumptions. We have worked with KPMG to propose a constructive way forward.

Further reduction to the cost of capital – to 2.18% (Real RPI), with a further reduction of 40bps to 1.83% signalled. We provide evidence from independent experts which demonstrates that, whilst Ofwat's analysis is thorough in component parts, when considered as a whole the draft determination cost of capital is below a central estimate of notional financing for an efficient company. We estimate this is between 2.31% and the 2.52% we use that includes our company specific adjustment (Real RPI).

4 Our challenges to the draft determination approach

We supported Ofwat's overall methodology and believed it to be a well-signalled and thorough approach to PR19. We also support the challenges that Ofwat has placed on the industry and we have engaged constructively throughout the process. Indeed we embraced totex and outcomes in producing our original plan, which featured extensive testing of different combinations of cost and service levels with customers. We can evidence this in our low level of enhancement expenditure, and that in many cases this was integral with base service. This is clear from the evidence of the lack of cost reallocations by Ofwat for our plan.

Ofwat is right to challenge the industry and the draft determination reflects an important question about the future of the water sector. Our response to the draft determination is made in this spirit and we trust that the evidence we present in our response will help Ofwat consider the overall balance of judgements needed from the many individual decisions, actions and interventions that were the focus of the draft determination.

Our key challenges to the draft determination methodology and approach are as follows:

- Ofwat has, to a material extent, failed to consider customers' interests – which are not served by increasing delivery risk and reducing investment across a wide range of performance measures, including those that are not customers' main priorities. The draft determination overly focuses on a national top-down mantra – this is that customers want lower bills, lower industry costs and a wide range of service levels set to comparators often based on industry upper quartiles. This is applied through a series of individual interventions. For performance, incentives are also set on comparators, with little realistic analysis to test the impact on companies' delivery as a whole. The total impact has not been considered or tested against customer and stakeholder views, or the overall deliverability of the challenges.
- From an investor perspective, the draft determination at face value provides a completely unacceptable level of risk to equity. Even assuming efficient costs as defined by Ofwat in the draft determination, negative returns can be expected.
- The draft determination included unexpected methodology changes that appear to "game" the price review process inappropriately, to encourage many companies to reduce costs. Ofwat does not appear to have considered the consequences if its cost forecasts, including Real Price Effects (RPEs) and frontier efficiency, prove to be insufficient for cost risks and the levels of service assumed.
- The draft determination, even if this efficiency position is accepted, appears to have too low a cost of capital to allow for current debt costs to be appropriately financed, despite these being efficiently incurred.

The draft determination raises the following questions for us:

4.1 Does PR19 still serve customers' expectations and long term interests?

Ofwat's draft determination analysis is thorough and detailed – but we do not feel it considers the whole picture "in the round" as set out in the PR19 methodology. Assumptions and judgements are made on individual areas and components (for instance between cost of capital and efficiency) that may appear reasonable in isolation, but are in many cases inconsistent with each other. The net impact in our view is a significant risk to the long-term resilience of the industry.

This particularly impacts Bristol Water because of a) the small company cost of finance, b) leading service levels that provide limited scope for outperformance and large risk of underperformance on cost and outcome incentives and c) serving a high growth area, which is impacted by Ofwat's late decision to change the form of efficiency modelling.

The draft determination feels like the application of the methodology, without adequately considering the full impact on our services to customers, which results in an outcome unlikely to be in customers' interests. Specific points are as follows:

- We have many assessments of enhancement where we have the lowest industry cost, yet this makes no contribution to our overall efficiency position despite the integrated nature of our plan.
- We produced a stretching original plan, targeting incentives on areas that mattered most to customers and had the widest range of underperformance incentives in the industry. In draft determination Ofwat imposes top down driven interventions, despite extensive evidence from customers showing they do not agree with Ofwat's priorities. As a result, we have carried out further qualitative and quantitative research that confirms that, on the whole, customers preferred the scale of our incentives and the priorities that these focussed on. In particular, meter replacement and per capita consumption are not aspects of performance that Bristol Water customers want the company to be as strongly incentivised on as Ofwat suggests.
- Ofwat applies interventions to outcome incentives that were not subject to challenge at the IAP change, such as on water quality contacts for discolouration. Ofwat in the IAP was quite clear that comparator incentive rates were only to test evidence on willingness to pay (WTP) values for outliers, and not a policy decision. From a customer perspective this is right. As we presented extensive evidence on customer WTP, we disagree with the conversion at the draft determination to use standardised ranges for incentive rates. We present evidence as to why water only companies such as Bristol have lower WTP, that this has always been a feature of WTP, and that the company-specific wording of questions to reflect the issues that matter most to their local area, is likely to be a key reason for variation on WTP. Variation of WTP rates has been exacerbated by Ofwat's PR19 methodology, which urged companies to get more customer insight and variety of research sources, rather than relying on more consistent stated preference surveys.
- Given that we can demonstrate that our questions were closer to the customer service issues we face in comparison to other willingness to pay questions used in the comparisons Ofwat undertakes, and that we triangulated these values through customer research in itself, we cannot base incentives on the Ofwat draft determination approach. In any case a) it results in an implausibly wide underperformance risk, as Ofwat acknowledge; and b) it is inconsistent with

our own customer research and customer priorities. Where Ofwat's interventions are within the plausible range from our research however, we do not propose adjustments. We calibrate incentives down to P10 2.5% RORE underperformance (compared to what was effectively 4.6% in the draft determination, although presented by Ofwat as 3.5%) through this evidenced based approach.

- Extensive evidence was produced from across the industry on the future cost assumptions. The shift from RPI to CPIH was meant to be a technical change, and the starting point would be to expect additional RPEs against this lower reference cost index. Ofwat has extensive evidence on power prices indexation, and we do not believe that this evidence should be overlooked for the final determinations.

We consider the overall impact of Ofwat's interventions and use this to inform our response. We see this as an essential part of the process, as the cumulative impact of individual methodology decisions does not aggregate to a balanced plan, which meets our customers' expectations with acceptable level of risks and fair returns to investors. We expect Ofwat to consider evidence as a whole, particularly where the company can demonstrate that it takes customer long term interests into account through its decisions. For instance, where we accepted additional risk in our plan rather than passing it on to customers - such as the DWI supported Cheddar scheme (where we prefer to continue a trial) – Ofwat does not appear to reflect on this within the draft determination.

4.2 Are we moving to new territory or revisiting old ground?

A number of interventions in the draft determination were not consistent with the IAP for Bristol Water, and the industry as a whole in some areas. This means that from a company perspective, the IAP was not as reliable a steer to allow conversion towards the right outcome for customers as it should have been. The process has led to substantially greater re-working of plans than is conducive to good planning for the water sector. Examples of these changes are:

- For Bristol Water - reversing the judgement on the C&RT cost adjustment claim that was ultimately accepted at both PR09 and PR14. We acknowledge that errors can occur in an initial assessment of plans, but changing the judgement on the C&RT cost adjustment claim does not help the process for something accepted after similar challenges in the past. Ofwat recognises that the C&RT source is the cheapest option we have and is outside our control – our customers also agree that the cost adjustment approach was reasonable.
- Changing the cost sharing methodology to remove the long-held protection of providing an element of sharing up front, which then increases the pressure on efficiency modelling to be "accurate" which in turn requires greater financial headroom to adjust. Ofwat skews the risk in two ways:
    i) Other regulated sector price determinations and the PR19 methodology include mechanisms that provided some financial protection to reflect that cost efficiency is uncertain and can be wrong. At PR19 this was reflected in the original approach to the totex sharing rate, with ex-ante revenues based on the forecast outcome if the company did not adapt to the models as Ofwat believes it should (or if the models prove to be "wrong").

ii) By “gaming” the response to the draft determination to encourage companies to reduce their own assessment of efficient costs to match the modelled view, Ofwat could not apply these ex-ante revenues.

This is not as Ofwat states, just a matter of timing difference, given the Ofwat concerns over 2020-25 financial ratios and financial resilience as it reduces equity headroom through the process.

The totex sharing 50% weighting between September 2018 plans and the draft determination response appears be the underlying cause of this methodology change, with a sharing rate model which skewed underperformance incentives 5% further.

This may be valid if there was a less stretching industry average catch up challenge, but not at an upper quartile efficiency challenge. Ofwat also provides an incentive for companies to respond by cutting their costs – this risks cost challenge for companies with less financial headroom than others, including for structural reasons of past financing even where it was efficiently occurred at the time

We disagree that this is an appropriate approach for Ofwat to take, given the impact it has on financial resilience. Whilst we assume and evidence that our plan response is efficient, if this proves not to be the case we expect Ofwat to revert to the original PR19 methodology approach for cost sharing and ex-ante risk sharing.

There are other examples of interventions at draft determinations which were not signalled up until this point, and in our opinion will need to be revisited:

- Introducing void incentives which were two times bigger for outperformance incentives and six times bigger for underperformance incentives compared to those in our plan, and was not mentioned at all at the IAP. This effectively introduces a revenue risk in a recession with an uncollared ODI penalty based on the wholesale bill. Ofwat effectively assumes that all void properties are occupied, an implausible assumption which is clearly not the case based on the evidence we presented in our business plan.
- Making late changes to the efficiency models, including growth spend within the base models which was rejected after the March 2018 modelling consultation, but was unexpectedly included in the draft determination. We understand from various technical discussions during the consultation period that this may change again. For developer services Ofwat has not been able to provide evidence and audit trails to adequately explain the draft determination intervention.

4.3 What further changes in approach are there to come?

Ofwat also suggests that there could be further changes in the methodology in the Final Determination, leaving no opportunity for stakeholders to consider the impact as a whole.

These appear to include:

- Further stretch in Per Capita Consumption to an industry standard target of 10% reduction. The logic of driving the cost of water to consumers down, whilst also heavily incentivising reductions in consumption without credible evidence on how this can be achieved, is challenging. We expect this will reduce customers’ trust – we do not have the tools to compel meters and water use reductions. We have every ambition to drive positive behavioural change – but not through overly strong and potentially penal incentives such as this.

- The potential to apply the totex sharing rates to the ODIs, increasing underperformance risk and outperformance opportunity. Given the wide range of draft determination interventions on ODIs and the uncertainty on efficiency output from the confusing approach to growth expenditure, we do not believe this is in customers' interests or reflects their views. Ofwat should be mindful if companies have responded to the totex cost sharing and threat by making significant cost reductions, without providing evidence for how their plan costs have changed.
- In the draft determination there was a poorly signalled change in D-MEX incentives from the PR19 stated methodology (page 209 of a 219 page outcomes technical appendix only) which raises a number of issues. For instance, it is not mentioned in the overview to the draft determination, it is not mentioned in the approach to regulating developer services document, and Ofwat did not adjust for this change in the draft determination presentation of RORE. We believe Ofwat must consult further, with evidence based on the D-MEX pilot and stakeholder views. If this evidence does not exist or cannot be thoroughly tested, Ofwat should revert to the original PR19 methodology position.
    - The shift to 6% outperformance and 12% underperformance penalties instead of 2.5% and 5% respectively should have been listed as an intervention, rather than in the draft determination small print. The design is different to C-MEX as it is not symmetrical around the average, and so the reason Ofwat presents for this change appears not to be fully tested. We would suggest for a new incentive, using the C-MEX approach and at the lower incentive rates originally proposed would be a balanced option.
    - We have not assumed this change within our draft determination response, in part because of the confusion in Ofwat's draft determination about how developer services revenues are being set. It is unsafe for Ofwat to set incentives based on the poor quality and uncertainty on developer services income and cost in the draft determination, as it provides no opportunity for companies to consider the risk and their response. On this basis - Ofwat should revert entirely to the original proposals made throughout PR19. Ofwat has not consulted on this properly, and it is insufficient to say that there have been opportunities to raise these issues when there is lack of clarity and inconsistency to the PR19 stated methodology that companies legitimately relied upon when preparing their plans. We cannot, from the current position, forecast how Ofwat will resolve this at PR19 without further dialogue.

4.4 Will opaque calculations result in a transparent determination?

We do not have full visibility of all of Ofwat's analysis and evidence used in its decision making process, despite requesting this in our query responses. Outcome incentives in particular have been disappointing, and if we cannot follow the calculations even after errors in Ofwat's calculations are acknowledged, we doubt that stakeholders could. If this proves to be widespread across the industry, it undermines a key aspect of Ofwat's interventions.

In the case of the small company cost of capital (CSA), the decision making process is mired in a very opaque set of hurdles, when fundamentally Ofwat is reducing the embedded cost of debt through an assumption of WASC outperformance – there seems to be no link between these two assumptions, even though this is obviously the case. It would be hard for stakeholders to understand from the draft determination whether or not this point had been considered, and what the implication is.

An example of an opaque process is Ofwat's rejection of the value of the company specific adjustment because it had moved outside Ofwat's range, resulting from a change in the proportion of new debt that Ofwat assumed. In addition, the CSA benefits test also can move significantly for subtle changes in Ofwat methodology – for instance a small change in supply interruptions glide paths moved a net benefit from Bristol Water at the IAP to a net disbenefit.

We cannot forecast what impact changes after the draft determination across the methodology will have on the final decision.

4.5 Does some detail and evidence really come down to judgement?

There has been a significant weight of evidence during the PR19 process, but in some cases decisions can rely more on regulatory judgement than on detailed analysis. The places where there are the most significant gaps between draft determination judgements and our interpretation of the evidence may be, for example:

- Ofwat claims 0.5% efficiency frontier p.a., based on the weakest of evidence in our view (industry analysts all suggest this is inconsistent with Bank of England forecasts for the economy used assessing the cost of capital).
- A large weight of evidence on RPEs has been presented to Ofwat, yet only small changes in approach are made. These are welcome, such as labour indexation, but the draft determination analysis had the same evidence on power costs and did not reflect it.
- Our concern with the PR19 methodology originally was that there would be little scope for outperformance for high performing water only companies on key areas such as water quality compliance and leakage. There is evidence for this from PR14 actuals, and yet the scope for outcome outperformance is removed equally across water and wastewater (and below the level the PR19 methodology set out).

4.6 How do we solve the puzzle of financial resilience?

Ofwat signals a lower cost of capital for the industry than in the draft determinations, worries about many companies' financial resilience, asks for Board assurance that they can adapt to this, whilst also making it harder for most companies to earn the cost of capital through using an upper quartile of efficiency and a wide range of forecast incentives performance, that no individual company reflects.

At the same time, Ofwat's response to where they are worried about company service performance is to increase the strength of incentives, whilst also reducing equity headroom across the industry. But with a notional approach to financing, and with standard outcome interventions, we are puzzled as to why Ofwat presents ODI underperformance ranges that vary so much between companies. Ofwat recognised this to an extent in the draft determination for Bristol Water, but the basis of that analysis was not holistic.

Customers do not understand this approach – where they worry about long-term services, they tell us they would prefer more investment (on a precautionary basis), rather than bill reductions for today. The acceptability of our revised plan bills at 93% is recognised in the draft determination as strong.

For Bristol Water, we explained how stretching our plan through totex and outcomes, in line with Ofwat's methodology, resulted in tight actual financial ratios as we recovered from our past performance challenges. The plan had all the information required to judge that the cost of capital we proposed, reflected the financial headroom we needed. We have revised this, but we cannot solve financial resilience at the level Ofwat believes it might set for the industry.

We believe this puzzle is likely to apply across the industry, but is particularly acute for Bristol Water given a cost of capital methodology that focuses on WASCs, and then puts additional barriers in the way for a notional WoC to ensure its efficient functions can be financed.

We make reasoned and balanced proposals throughout to help solve this puzzle.

5 Approach to our response

Our response relies on evidence – it responds to Ofwat's individual actions, but also considers our plan and draft determination response holistically. We recognise Ofwat's decisions do consider the industry as a whole, but we cannot, given the challenges faced, drive our plan and response to the draft determination solely from this perspective. The customer perspective is our overall priority.

5.1 Overview

We have carefully considered each of Ofwat's challenges to our plan, both at an individual level and the impact of the draft determination as a whole and we have responded positively and constructively.

The draft determination is driven by an industry comparator approach, but there are many elements of our plan which are driven by our close connection with our local communities and our own innovations. Ofwat has recognised many of these such as our biodiversity, local customer satisfaction and raw water quality performance commitments which boost long term planning and our systems based thinking approach. Other interventions however, such as removing our zero customers in water poverty commitment which do not align to our strategy and social contract– in this case this commitment features in the Bristol Council One City Plan which was recently presented to the UN as an example of better long term planning under the UN Sustainable Development Goals. Our resilience action plan provides evidence of why this is important to public services, and this also features in our response to Ofwat's strategy and vision.

We have now carried out the social tariff research to demonstrate customer support for the continued growth in social tariffs, although noting we had clearly signalled that our other stakeholders had agreed that we should carry out this research nearer to the time when current subsidy support is likely to expire (2021/22). The only reason we had to carry out the research now is Ofwat's draft determination intervention to replace a locally driven outcome metric (an existing measure, which should continue according to the PR19 methodology) with an output measure on social tariff numbers which does not reflect our strategy. We now have the inefficiency of having to carry out this research more than once, despite currently having amongst the largest proportions of customer on social tariffs in the sector, and a wide range of options.

We provide our updated social tariff research in ***A39. Social Tariff research August 2019***. This shows 68% support for our proposals for increased social tariffs. By customer segment support varies between 62% and 75%. This is support based on an increase from £1.40 to £2 per customer per annum. The median WTP is higher at £2.25. This provides ample support for our long term plans that ensure all eligible customers benefit from our range of social tariffs.

Our resilience action plan provides evidence of why our approach is important to public services, being systems based and linked to community wellbeing. It also features in our response to Ofwat's strategy and vision. We hope Ofwat can consider these local innovations should form part of the water sector and its regulatory framework, and balance this with the national comparators approach.

Our overall view is that Ofwat's draft determination reflects a thorough and detailed review of individual tests, but has not been as thorough at considering the total impact, and testing this against customer and stakeholder views, as well as the overall deliverability of the challenges. This presents us with a fundamental challenge – how quickly can we adapt to Ofwat's view of the industry as a whole whilst leaving sufficient space for growth and the innovation that is required. Outcomes and totex in simple forms provide this imperative, with customer and investor support. It is this focus that means we have to challenge the draft determination.

Our response focuses on a) presenting evidence on individual areas (e.g. on areas such as resilience investment) but also b) considering the overall impact and justifying our response from this perspective, even where it does not align to Ofwat's individual methodology decisions.

An overview of our response is given below, with further information on key areas in Sections 6-11 and our representation documents.

5.2 A balanced response

We propose a fair and balanced package of response points on the draft determination, consistent with evidence and customers' views. We consider the customer perspective throughout. The Ofwat regulatory regime continues to increase in complexity, and the whole impact of this seems to have been lost. The PR19 draft determinations continues this trend, and even where we can support simplification (such as suggested for developer services), the application in the draft determination has not assisted the process.

The draft determination framework requires us to continue this trend of increasing complexity, and in line with the draft determination we propose further adjustments to correct from power price forecasts (in return for an up-front allowance, consistent with wage cost pressures), and a pass back mechanism in case Traffic Management Act permit schemes do not commence as currently planned.

We also present an alternative to mains burst interventions (where Ofwat's proposal is not based on good evidence), with the offer of a formal commitment to a mains refurbishment / replacement output measure of 20km per annum, to provide a better intervention that reflects our plan, compared to Ofwat's alternative. This complexity is all needed to balance Ofwat interventions and incentives, which in our view are not risk based, and provide little opportunity for incentives to discover the right balance of risks and opportunity.

5.3 Responding to Ofwat's efficiency challenge

We have undertaken a detailed review of Ofwat's efficiency analysis and have drawn upon independent analysis of Ofwat's efficiency models. We have also reviewed the balance of cost and service levels within our plan, together with our challenging aspirations for business transformation. Our conclusion is that we cannot reduce the costs in our plan as far as the application of the efficiency models in the draft determination imply, without this increasing long-term risk to customers. We make judgements that are within reasonable boundaries, and present the evidence to support this.

We have increased our efficiency delivery challenge from £52m in our business plan to £65m at the revised plan and £80m for the draft determination response, cutting our proposed costs by £28m in the process. This stems from our revised network maintenance contract and the pace of leakage improvement we are currently demonstrating, but it will remain challenging to deliver. We can only target this level of efficiency improvement through a) our innovation ambition and b) having sufficient financial headroom and balanced outcome delivery incentives to allow a long-term response that accepts there will be “bumps along the road”.

>>Further information is provided in Section 6 of this document and within BW02 – Cost and Efficiency

5.4 Responding to Ofwat’s interventions on Outcomes

We consider each of Ofwat’s challenges on outcomes design and analyse as much industry evidence as is available to check Ofwat’s use of comparative ranges on ODI incentive rates. As Ofwat has not presented any evidence on whether the surveys themselves were consistent, or has any recognition of our innovative approach to testing WTP values through our draft business plan research, we analyse this on a case by case basis.

Some of Ofwat’s interventions, such as on voids, were inconsistent with the revenue risk intended in the PR19 methodology. For instance, Ofwat’s incentive rates for voids assumed all void properties were in fact occupied. This clearly cannot be the case, but Ofwat did not consider that our void rates had evidence that 10% of void properties inspected had occupiers. This assumption explains the difference between our void incentive strength, and that proposed by Ofwat.

Elements like this apply to almost every incentive challenge made by Ofwat and we document our response to each one. In addition, we could not replicate exactly any of the incentive rate interventions Ofwat proposed, and in each case where we followed the methodology described, we calculated a different number. Where we did query the rates during the draft determination process, on each occasion an error was acknowledged. However, no audit trail so we could check all the calculations was forthcoming, and therefore our draft determination response has been limited by the number of errors, and the lack of transparency in the draft determination. We present our calculations and alternatives, but believe a further consultation and engagement process may be necessary in order to protect customers adequately.

Throughout our response we accept the risk that we have misunderstood the methodology or the draft determination. We balance that with the external and internal review that supported the quality of data tables and our plan documents that we produced.

Our response in relation to the key outcome interventions in the draft determination is summarised below:

The removal of the financial incentives on the ‘population at risk from asset failure performance’ commitment - We provide evidence of the asset strategy and customer support for our original proposals. The resilience scheme is important to our customers, and we propose a penalty-only mechanism for the whole of our resilience outputs to avoid only delivering a big scheme for some communities. The sophistication and innovation of our resilience proposal as a whole should be recognised. Ofwat challenged companies to develop better forward looking measures of asset health and our proposal has been seen as good practice, so should be reflected in the incentive framework.

The draft determination approach of a reputational incentive without supporting investment to credibly deliver it as part of an integrated totex and outcomes plan is not in anyone's interests.

The increased strength of financial incentives for performance commitments, including leakage and supply interruptions - Ofwat's approach is contrary to the engineering logic of the industry in many places, as it is based on a series of individual interventions without convincing evidence. We recognise the validity of the question Ofwat poses, but we are confident of the strength of our analysis and ask that it should be recognised.

The increased underperformance rates in areas where the company is currently perceived by Ofwat as a poor performer, such as mains repairs - Ofwat states we did not provide a delivery plan for mains repairs - we did present this evidence in our revised plan, but it was integrated with our leakage and supply interruption delivery plans, which is a question Ofwat raises for the industry at the draft determination. In our response we therefore present an extensive delivery plan and challenge the logic of Ofwat driving mains burst levels lower across the industry.

Rebalancing RORE for outcomes - Ofwat recognises in the draft determination the need to calibrate the RORE impact of the incentives back to an appropriate level. We provide extensive evidence that the 2.5% in our plan was appropriate, and that the 3.5% (in reality 4.6%) P10/P90 range in the draft determination went outside of Ofwat's stated methodology, and was much wider than other companies in the industry. This stemmed from top down applications of methodology. Although Ofwat did try and constrain this level of risk, it was often to reverse other individual challenges, and as a whole did not reflect sensible incentives or customers' views.

We propose alternative approaches to restore the balanced level of risk proposed in our business plan, whilst not ignoring Ofwat's methodology decisions. However, customer research and evidence support our position. Our recalibration of ODI incentives back to P10 of 2.5% and full range of 4.8% is balanced compared to the draft determination and aligns with customers' views – which we re-tested as part of our response. We provide extensive Monte Carlo simulation as we did in our original plan.

>>Further information is provided in Section 7 of this document and within BW03 – Delivering Outcomes for Customers

5.5 Providing evidence on areas Ofwat where requested it

Resilience investment – this is a key customer priority for their local community and is an example of industry innovation through the power of data, and small local changes rather than large expensive projects. The focus on small interventions rather than large schemes should not in our view determine whether something is considered as an enhancement, as this feels inconsistent with a totex/outcomes framework. We can confirm and provide evidence that we will not make these investments for base maintenance, as there is no business need, which means Ofwat's draft determination comments on appropriateness of WTP compared to supply interruptions are misplaced. Ofwat allows c50% of the total programme in terms of cost, but the benefit of the chosen project only applies to c28,000 rather than c550,000 people.

>>Further information is provided in BW02 – Cost and efficiency

Traffic Management Act – we present updated evidence that demonstrates that the local authorities, in line with Government edict, will introduce permit schemes by the deadline they have been given of 1 April 2020.

>>Further information is provided in BW02 – Cost and efficiency

5.6 Providing additional evidence to support the Canal and River Trust cost adjustment claim

We provide extensive further evidence that demonstrates that the water supply costs are unique and making this adjustment, as has been found every other time this has been considered at previous reviews, is necessary to accurately assess efficiency. We provide additional evidence to demonstrate the costs of the payments to the C&RT are substantially not provided for in the cost assessment models. The evidence also shows that there are no costs that we avoid through this supply arrangement which mitigate those costs incurred. We provide an updated value of our claim, based on the most exaggerated view of what could already be allowed of within the model, to avoid Ofwat's "all or nothing" approach to these claims.

>>Further information is provided in BW02 – Cost and efficiency

5.7 Providing additional evidence to support the company specific adjustment to the cost of capital

We show why the draft determination challenge on the range we proposed was unreasonable, as the Ofwat test only failed because Ofwat changed a component of its cost of capital assumptions. We also update the benefits approach as we identified obvious errors in the assessment, that once corrected demonstrate a net positive benefit of £9m from Bristol Water, net of the cost of the uplift in the cost of debt that we propose. There are other benefits that we consider, that are in addition to this value.

All parties we engage with, other than Ofwat, continue to believe the CSA benefits test to be invalid, faced with acknowledged efficient embedded financing cost (even with hindsight) and strong customer support to pay for this small additional cost. However, we continue to present compelling and extensive evidence. We also note that once consistent assumptions are made on the cost of capital, rather than selecting different time periods of analysis for components of the cost of capital as featured in Ofwat's draft determination, our proposed cost of capital of 5.6% nominal appointee is below the c5.8% suggested by the thorough review carried out for us by Economic Insight, at the low end of their estimated range.

>>Further information is provided in Section 9 and in BW04 – Financeability, risk and return and affordability

5.8 Providing further evidence in relation to the industry cost of capital

The evidence from Economic Insight clearly suggests that the 40bps reduction in the cost of capital suggested by Ofwat would not reflect consistent use of the underlying evidence, and the draft determination 5.25% and potential final determination c4.9% are below a central estimate of the notional financing cost for an efficient company. This is even if you assume that expected returns match the cost of equity given Ofwat's approach to future cost efficiency and outcome incentives. As the draft determination does not provide sufficient returns to finance, indicated by the level of financial ratio support needed at the notional company level in the draft determination, the cost of capital has clearly been set too low. When company actual ratios are considered on a consistent basis, the picture that the cost of capital is too low to allow for efficient actual finance costs to be covered becomes clear. There are systemic problems with Ofwat's financial ratio analysis, which the wide range of notional ratios that Ofwat presents for different companies in the draft determination illustrates

We present compelling evidence that the cost of capital we propose at 5.6% is consistent with the stable and appropriately low risk financing arrangements that we have in place, and we provide Board assurance that we are financeable based on our response to the draft determination. But we do not conflate our financing risk, with a draft determination risk.

We also present evidence and assurance on the steps that we would take in practice to ensure that financing was maintained irrespective of Ofwat's draft determination, however this does not imply that a final determination on the basis Ofwat indicates would be in line with Ofwat's duties or in customers' interests. In this way the Bristol Water Board continues to demonstrate our commitment to delivering our obligations and duties to customers, irrespective of Ofwat's PR19 decisions.

>>Further information is provided in Section 8 and in BW04 – Financeability, risk and return and affordability

>> The Board's financial resilience statement is provided in Section 12.

5.9 Responding on our proposed Notified Item

We accept Ofwat's proposed wording for the Gloucester & Sharpness canal Notified Item. One change that we do propose is in the commitment below (point 2), it should apply to a decrease as well as an increase in revenue. This symmetry we think is important, and does not prevent us taking a different approach (for instance other than triggered by an interim determination) for a decrease in revenue should we demonstrate that it is appropriate and only benefits customers by doing so.

1. We provide a formal commitment to reflecting any changes to charge levels for purchase of water from the Gloucester & Sharpness Canal (whether an increase or decrease) within our annual performance report.
2. We also commit that should an interim determination be triggered, we will reflect the outcome increase (or decrease) in our baseline revenue allowance, and will collect only 75% of the increased (or decreased) amount in accordance with our proposal. We will agree with Ofwat the adjustment to the targeted revenue in the revenue forecasting incentive for Bristol Water.

5.10 Responding on sharing mechanisms

We continue to disagree with Ofwat that our £12.5m of preference shares should be included as debt within the calculation of the level for gearing benefits sharing. At the CMA in 2015 Ofwat argued the opposite to now in excluding the calculation of the Bristol Water cost of debt. Including them ignores the purpose of this "Putting the sector back into balance" measure, which we have fully supported. We do not wish to be excluded from this measure and do not believe gearing will increase above 70%, but we will not agree to the inconsistency of treating preference shares as equity for the cost of capital and then sharing returns on equity calculated with preference shares treated as debt.

We retain our social contract voluntary sharing mechanism, linked to our view, but not dependent on Ofwat's decisions on, the value of the company specific adjustment to the cost of capital.

>>Further information is provided in Section 9 and in BW04 – Financeability, risk and return and affordability

5.11 Responding on dividend and executive pay policies

We have reviewed and updated our dividend and proposed executive pay policies – we are satisfied they are appropriate for a company like Bristol Water. We remind Ofwat of the importance of our social contract mechanism, and how we see this as a key part of resilience in the future.

>>Further information is provided in Section 13 below

5.12 Policy observations

To assist Ofwat with our "helicopter" view over the draft determination challenges and our response, we provide a summary table in section 14 of this document as to the key criticisms and observations Ofwat makes on the Bristol Water plan from a policy perspective, and how we address them in our response.

>> See section 14 for the summary table

6 Cost and efficiency

Our wholesale cost gap at draft determination to Ofwat's view of what is efficient was £69m (13.6%), compared to £67m (c12%) at the IAP stage. We make representations on Ofwat's approach to wholesale cost efficiency, providing new evidence where Ofwat specifically requested it, as well as an adjustment to the base efficiency modelling we propose for Bristol Water to reflect a true picture of efficiency, that reflects the totex and outcomes-driven approach to developing our plan. We believe these adjustments are likely to close at least 75% of the cost gap at the draft determination. With the exception of the inclusion of growth expenditure and the issues arising from booster pumping station data, we believe Ofwat's suite of base efficiency econometric modelling is overall robust, based on our testing to update for 2018/19 APR expenditure.

We align our cost for the remainder (c25%) of the gap through a mixture of lowering our future cost inflation (above CPI(H)) assumptions and reductions to our base costs, supported by our transformation progress. We also provide evidence on three areas of detailed expenditure responses – on Traffic Management Act costs, Resilience enhancement and an assumption of funding for strategic water resource development as part of West Country Water Resources.

Our retail costs at the draft determination were in line with our plan, and our analysis has confirmed that the retail efficiency position appears robust when updated for 2018/19 data. As Ofwat's approach to efficiency modelling appears robust and we do not have any cost adjustments or data issues, we have no retail cost representations to make.

We summarise the efficiency challenges to our wholesale costs in the draft determination compared to our revised plan in the graph below. This compares wholesale costs excluding third party costs, a gap of £69m from our plan costs of £459m to the draft determination of £389m.

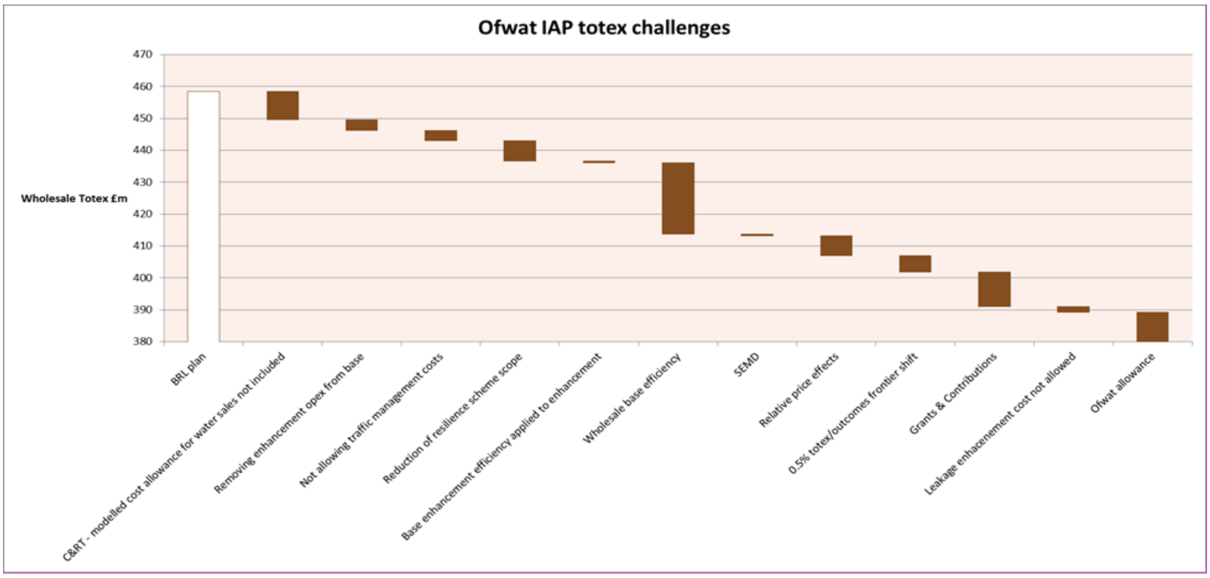


Figure 1: Ofwat draft determination totex challenges

The graph below summarises our response areas – including where we provide more evidence, and the assessment we make of the outcome from the efficiency modelling. This shows response points totalling £56m.

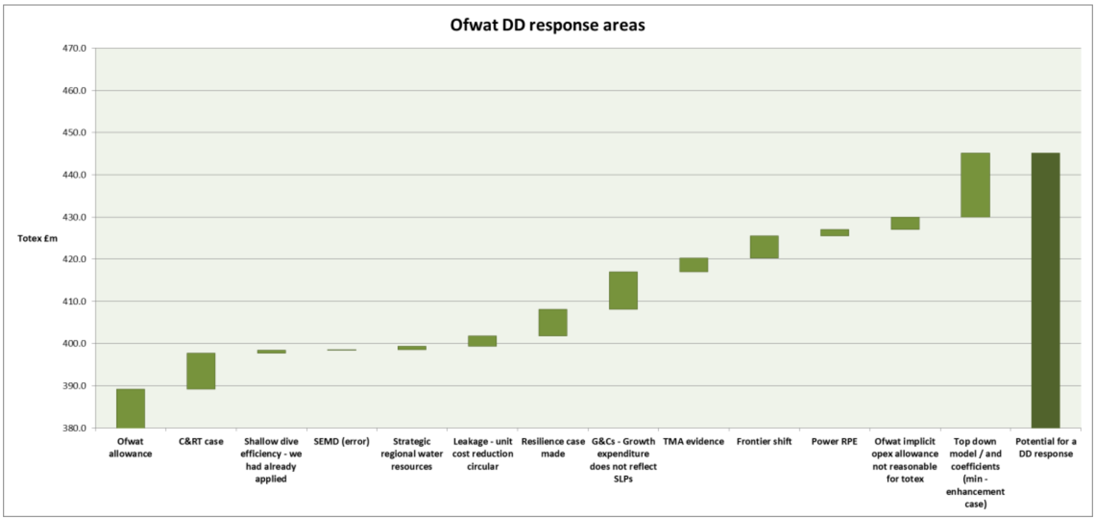


Figure 2: Value of areas within our response

The table below provides a high level comparison of wholesale costs changes to our revised plan as our response to the draft determination. We make no adjustments on Grants & Contributions as the draft determination approach has been acknowledged as erroneous and Ofwat has not provided any audit trail that explains these cost and income interventions.

We have made significant progress with our own transformation. This has allowed us to reflect on the remaining efficiency gap, after exploring the information revealed in Ofwat's draft determination. As part of the package we propose in our response to the draft determination, we believe we can commit to closing this gap. We have targeted delivering a further 2.6% efficiency from botex, which amounts to £9.6m cost reduction.

Wholesale summary £m	Revised plan April 2019	DD	DD Response	Movement - DD to revised plan	Movement - DD response to revised plan
Base/enhancement view					
Base	424.141	364.229	409.593	(59.912)	(14.548)
Enhancement	34.437	24.953	35.467	(9.484)	1.030
Third Party	6.998	6.998	6.998	-	-
Gross	**465.576**	**396.180**	**452.057**	**(69.396)**	**(13.519)**
G&Cs	16.778	9.355	16.778	(7.423)	-
Net	448.798	386.825	435.279	(61.973)	(13.519)
Opex/capex view					
Opex	262.340	222.745	253.977	(39.595)	(8.363)
Capex	196.238	166.437	191.082	(29.801)	(5.156)
Third party	6.998	6.998	6.998	-	-
Gross	**465.576**	**396.180**	**452.057**	**(69.396)**	**(13.519)**
G&Cs	16.778	9.355	16.778	(7.423)	-
Net	448.798	386.825	435.279	(61.973)	(13.519)
Breakdown of base movements (DD response to revised plan):					
Relative price effects (0.55% p.a.)					(5.218)
Base efficiency (2.6% one off)					(9.563)
Traffic management Act					0.825
Leakage transfer to enhancement					(0.592)
Base total adjustment					**(14.548)**
Breakdown of enhancement movements (DD response to revised plan):					
SEMD (absorbed in base)					(0.490)
Leakage transfer from base					0.592
Strategic water resource development					0.928
Enhancement total					**1.030**

Table 1: Summary of movements in wholesale cost allowance

We accept that we have more to do on efficiency, and the models to an extent confirm this, but we think that there are specific factors that Ofwat should consider.

We have updated the Ofwat models for 2018-19 data as published in company APRs. This improves our efficiency position by c£5m.

In addition we retain our view that Ofwat should take a cautious approach to the difference between the top down and bottom up efficiency models. Setting the upper quartile on the better of these two approaches, which is a methodology other regulators have used, improves our efficiency position by c£3m.

We provide evidence on the specific areas of challenge and actions set out in the draft determination:

Resilience and Traffic Management Act - We present further evidence on our resilience investment and Traffic Management Act, which supports the inclusion of this investment. We believe this meets Ofwat's draft determination expectation that we present further evidence that demonstrates that the local authorities, in line with Government edict, will introduce permit schemes by the deadline they have been given of 1 April 2020. We propose a penalty only ODI to protect customers on resilience, and propose a totex adjustment should any of our six councils ultimately not introduce a relevant permit scheme during any financial year 2020-25, although all provide confirmation that they plan to do so during 2020.

The resilience investment is a key customer priority for our local community and is innovative for the industry in itself. The focus on small interventions rather than large schemes should not drive Ofwat's base versus enhancement challenges, as this feels inconsistent with a totex/outcomes framework. We can confirm and provide evidence that we will not make these investments for base maintenance, as there is no business need, which means Ofwat's draft determination comments on appropriateness of WTP compared to supply interruptions are invalid. We provide evidence that schemes were already allocated to base where there was a growth or maintenance element, and therefore no efficiency adjustment should be applied. It is worth noting because of the focus on big scheme outputs for Glastonbury – Street, Ofwat allows c50% of a total programme in terms of cost, but the benefit only applies to c28,000 rather than c550,000 people.

Strategic water resource development - We include £0.9m for development of strategic water resource development schemes. This is a potential contribution of 16Ml/d from a Cheddar 2 reservoir and 5Ml/d from repurposing the existing Newton Meadows transfer, as part of the wider regional plan from West Country Water Resources. Ofwat will wish to explore the quantum of this further, which is necessary in order to plan the connections to take these future water resource transfers to the point that they contribute to the national strategic plans. This represents 24% of the forecast West Country contribution of c90Ml/d. The allowance for this could be higher than we have indicated, but the draft determination process has not allowed sufficient time to consider this fully, given Ofwat did not consider our contribution in advance of the draft determination. This therefore is a minimal estimate based on the draft determination allocation to South West and Wessex, scaled up for our contribution, which was omitted at the draft determination. Given the process, we do not expect this value to be compared to plan allowances /sharing rates and we expect that any true up should be dealt with as a non-sharing rate totex reconciliation at PR24, subject to the quality adjustment process set out by Ofwat in the draft determination appendix.

Enhancement efficiency - In our plan we provided clear evidence of a programme level efficiency adjustment of 8% (plus 0.9% p.a. from 2018 in cumulative efficiency) – c10% in total, which should therefore not have an enhancement "shallow efficiency" deep dive adjustment added on. Given our leading efficiency position where enhancement modelling is carried out, this approach appears not to be supported by any evidence.

Adjusting implicit enhancement opex allowances from base expenditure - We demonstrate that we developed a business plan that focused on totex and outcomes – this is clear from the low level of enhancement investment, and we therefore disagree with Ofwat's change in methodology to adjust implicit enhancement opex allowances from base expenditure based on an average of 6 other companies who hadn't followed the table data definition in the plan correctly.

Totex based assessment - As a result we identify a number of adjustments necessary to reflect an efficient level of cost in our final determination, looking across base and enhancement expenditure as a whole. Adjusting for leakage, metering and lead enhancement efficiency so that the assessment is based on totex, improves our efficiency position by £7m. Taking into account implicit allowances from enhancement cost adjustment claims Ofwat allows for others, which often merely reflect DWI requirements that are to address CRI or ERI risk, which are not necessary for Bristol Water given our track record of performance, improves our efficiency position in total to ensure a totex-based assessment by £18m.

C&RT cost adjustment claim - We also demonstrate that the Canal & River Trust (C&RT) cost adjustment claim remains valid and we provide extensive evidence to support the claim, which has been accepted previously and was accepted at the IAP. In response to Ofwat's efficiency challenge, we calculated an implicit allowance from the PR19 models of £20k, which is minimal, based on the only other potentially comparable scheme (Elan Valley). Based on a non-model relative cost estimate we reduce our claim from £9.0m to £8.6m, which leaves room for c.20 other possible examples of this unique additional cost (confirmed in a further review by NERA), as we have imperfect knowledge of all arrangements that may exist.

Our response is supported by detailed technical evidence, and a series of reports by NERA that provides cross-checks to our own analysis and an external expert perspective that shows the thoroughness of our own analysis. We provide Stata files of our own analysis, which will allow Ofwat to consider our points as there will be changes to the 2018/19 data set from that is currently available to us.

Frontier efficiency - Ofwat assumes 0.5% frontier efficiency movement per year, based on the weakest of evidence (which for example is inconsistent with Bank of England forecasts for the economy Ofwat used for assessing the cost of capital), yet leave little or no scope for outcome outperformance and does not assess totex cost efficiency in any case. NERA provides an updated analysis of this evidence.

RPEs - Extensive evidence was produced from across the industry on Relative Price Effects (RPEs), and from Europe Economics as Ofwat's consultants. The shift from RPI to CPIH was meant to be a technical change, and the starting point would be to expect additional RPEs with a lower reference cost index. Ofwat has extensive evidence on power prices and we do not believe that this evidence should be overlooked for the final determinations. We believe a small power price inflation assumption of 0.15% p.a. should be adopted, together with indexation to the BEIS index with correction, as with labour in the draft determination, to be applied at PR24.

Efficiency models - We support the overall approach to efficiency models, but late data changes and the change in treatment of new connection and developers' expenditure means we have significant concerns. Whilst there is a shift from economies to diseconomies of scale in the models since the IAP, which disadvantages smaller water only companies, overall we accept this is not a statistically significant change to the industry model as a whole, despite its impact on us.

Ofwat treats our leakage costs as our unit rate, even though this is based on our following the IAP methodology on leakage enhancement expenditure which reduced our unit rate costs. Ofwat inadvertently does not allow our efficient costs through this double adjustment, which arises because Ofwat changes their approach to allowing enhancement opex between IAP and draft determination. We provide detailed response evidence as to how the application of methodology made these multiple adjustments, as Ofwat has inadvertently confused our response to a framework in the revised plan, to company actual costs. Ofwat sets out in the draft determination a specific policy to avoid this occurrence, so we provide clarity to avoid this risk in the final determination.

The inclusion of growth expenditure in the efficiency models since the IAP appears not to be fixed, and the change in methodology not fully developed. We understand the reasons for this, but due to the lack of transparency on the c43% efficiency applied to our developer services costs, despite our requests for clarity, we can only revert to the IAP conclusion that our developer services expenditure was efficient, and to retain our assumptions on expenditure and income at this stage.

Supplementary information for all companies on Grants and Contributions was published on the 13th August, which acknowledged the draft determination approach was wrong, and that a different approach may be applied for the final determination. This did not allow sufficient time to assess this ahead of the draft determination response. This note also seemed to conflate income with expenditure – it showed an expenditure efficiency assumption of 18%, without model audit trails, but applied this to income to provide a unit rate, based on modelling with a different number of properties and no specific driver for growth spend. We received no response to our specific question on the 43% efficiency made at the draft determination.

NERA's analysis suggests that the approach to modelling growth expenditure at the draft determination was invalid, because it compared a model with poor statistical validity with a model that improved after including the growth data to set this efficiency. However, this was caused by the change in booster pumping station data (as the model only worked with both new booster pumping station data and growth expenditure included, and not without either of these elements). Ofwat needs to engage further on developer services in advance of the PR19 final determination, to avoid the risk that the final approach creates undue risk for both companies and developers within a competitive market.

We cannot understand the logic of the draft determination approach. In section 10 of BW02 we provide detailed analysis of our view on the options considered in the draft determination. In our view, Ofwat should remove the efficiency challenge on developer services costs and income – this would require modelling that reflected population growth, rather than population size.

Our proposal suggests a unit rate for connections that distinguishes between SLPs and others. We propose no adjustment for network reinforcement or infrastructure charges – this conflates market risk that varies with activity with changes in cost (and income). A per property approach for network reinforcement seems unwarranted given that there is a legal obligation to balance income and cost. Similarly for mains diversions – there is no problem Ofwat needs to solve.

For connections, this avoids the need to adjust for NAVs, as infrastructure charges do not vary as income from the RFI adjustment. The very low rate of network cost recovery that we forecast in our plan (reflecting market penetration and income offset), means that there is also for most companies unlikely to be any need for an income correction at a unit rate.

	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
Connection charges (non SLP)	2.698	2.337	2.308	2.264	2.215	11.822
Number of non-SLP connections	4281	3805	3703	3633	3557	18979
Non SLP unit rate (£)	630	614	623	623	623	623
Value of adopted water assets from SLPs	1.866	1.616	1.596	1.566	1.532	8.176
Number of SLP connections	2369	1955	1988	1945	1903	10160
SLP unit rate (£)	788	827	803	805	805	805

Table 2: Summary of movements in wholesale cost allowance

Note that this only applies to connections – because of income offset for infrastructure charges and network reinforcement, there is no adjustment proposed and the unit rate is higher than the £570 in Ofwat's calculation. No NAV adjustment is required either, as they do not qualify as a connection on this basis (no onsite connection costs). We would suggest using an average rate over the period rather than an annual rate as in practice there is little variation expected.

The logic of our proposal also supports the Revenue Forecasting Incentive – because connection numbers and income is easier to forecast than network reinforcement, which is driven by rolling changes in need, with a regulatory requirement for these charges to recover cost over time on this basis.

7 Outcomes

Whilst incentives have power, the skewed incentives in the draft determination is far removed from the +/- 2 to 3% set out in the PR19 methodology. The underperformance "P10" ranges in the draft determination understate the risk significantly, because they have just been applied pro-rata to changes in incentive rates. For Bristol Water, the highest in the industry according to the draft determination of 3.5% was scaled up, and was in reality 4.6% underperformance. When compared to a draft determination proposed cost of equity of c4%, this is clearly unacceptable, even assuming realistic efficient cost and notional financing assumptions in the remainder of the draft determination

In outcome incentive design, Ofwat applies comparatives as if the methodology reflected output rather than outcome regulation. For instance companies who make early progress on delivery getting ready for the next period, risk having the benefit from their advanced planning and innovation eroded. We foresee how normal external factors that affect industry leakage, mains repairs, PCC, void property and supply interruptions performance could easily result in negative returns for equity investors becoming the norm for the water sector, with little scope for offsetting rewards within year or across years. Evidence suggests this particularly applies to the water service, with the bulk of outperformance during AMP6 in wastewater. We have raised previously with Ofwat the lack of potential for outperformance on the water service, and present evidence that customers expect balanced rewards and penalties overall.

Our main challenge is that Ofwat's approach does not reflect customers' views. Ofwat criticises us for not conducting WTP surveys on mains bursts. However, customers' views were that leakage, supply interruptions and water quality were the service levels that mattered most to them, and they had no WTP for mains bursts separately to this – they wanted the incentives on asset health to reflect cost. Whilst we could have valued with reference to WTP, this double counts WTP on these other metrics. This is both the cause and the effect – Ofwat takes a view contrary to customers, and then creates risk by incentivising a different outcome.

This we believe will add cost to the industry in the long run and will reduce customer trust, with repeated failure to deliver targets that were not supported by asset or customer evidence, and were not supported by sufficient efficient investment being assumed in revenue controls. It puts excessive focus on what the regulator thinks may be the case, wherever it cannot find evidence from all companies to the contrary, irrespective of the customer research that a company carries out. Whilst incentives do have power, and our description in this paragraph is an overly harsh interpretation of the draft determination, if it is proven by subsequent events and failure to hit targets, it will be self-fulfilling for the reputation and customer perception of the industry. This is not in anyone's interests and so a better balance of stretching assumptions, based on documented evidence, is required.

For instance, whilst there is no current driver to reduce mains bursts beyond the already stretching incentives for other areas, this may change with long term requirements for lead pipe replacement and other factors that will potentially change the industry from the outside, such as electric vehicle charging points. We have produced evidence on what is a stable, long-term level of service for what we know today. In the draft determination Ofwat criticises the lack of a delivery plan for mains bursts, when none was requested and when we had integrated this into our delivery plan for leakage, supply interruptions and discolouration, the lack of this link appearing to be the reason used by Ofwat for imposing revised incentives on most companies.

A different plan would have been prepared if Ofwat was clear that this was the only option for the industry given the skewed incentive framework now proposed – we provide evidence as to this impact and would assume the same also applies to other companies.

In conclusion:

- We do not accept Ofwat's proposed mains burst target reduction from 133/1000km p.a. to 121.7p.a. We do however remove the deadband for underperformance in return for a collar to the total risk.
- We accept Ofwat's per capita consumption reduction of 6.3% reduction rather than 5%, given this applies from a three year average up to 2019/20 this is within the range of evidence of deliverability from our plan.
- For leakage we propose an increased cap on outperformance to that proposed by Ofwat, to reflect our leading performance in the industry. This reflects our customers' priorities for both leakage and the balance of incentives.
- We demonstrate in our cost and efficiency (BW02) response that our resilience enhancement investment is based on individual outputs that can be monitored for delivery individually. To reflect Ofwat's draft determination approach in suggesting an underperformance only output delivery for Glastonbury – Street, we also apply this approach to the remaining schemes. Our customer research is clear that only protecting big schemes for a small population would not reflect customer priorities for resilience, or our resilience action plan. Therefore, we propose a penalty only ODI based on output delivery rather than the reward/penalty ODI originally proposed (re-named "Reducing Population at Risk from Asset Failure").
- Ofwat also proposes a significant increase and skew in D-MeX incentives. We do not agree with this change in our draft determination response, as it was poorly signalled. We believe the balance of incentives should match C-MeX, at the level of incentives proposed in Ofwat's PR19 methodology.

Ofwat should reflect that the draft determination should more clearly set out for debate the potential impact on the future of the water sector. We include in our response two pieces of evidence to support the importance of this debate.

1) We commissioned ICS Consulting to review Ofwat's draft determination approach. Much of the WTP and outcomes framework in the water industry was developed by ICS Consulting working with leading companies such as South West Water and Anglian Water for PR04 and beyond. This was driven by the recognition that the industry needed to move away from a focus on capital enhancements, to considering totex and base maintenance.

   It is a major concern of the water industry and its stakeholders that Ofwat's PR19 approach ignores the needs of long term maintenance by taking an individual challenge, often based on outputs rather than customer driven outcomes. It is a potentially dangerous approach, as it risks ignoring the engineering, operational and maintenance logic of the industry, relying instead on a speculative belief in innovation. We asked ICS to review our draft determination on outcomes from this perspective. They comment:

"If the evolving landscape for water companies is genuinely to restore public legitimacy and trust in water companies then relying on incentives to make companies work harder might end up being too limiting. And the unintended risk could be to push some water companies too close to the edge. Working smarter together is likely to require approaches that extend way beyond financial risk and reward."

2) In combination with this, we considered whether Ofwat's outcomes and efficiency approach focused sufficiently on the key objective of the water industry – water quality compliance. We asked Professor Jeni Colbourne MBE, former Chief Inspector of the DWI, to review the challenges presented by the draft determination, in order to help us consider our response. She comments:

"The level at which these incentives are set, as well as whether doing so is in principle appropriate and supported by the Drinking Water Inspectorate, appears beyond what might be either feasible or reasonable."

We publish both of these reviews as part of the debate that we believe is necessary before PR19 decisions are finalised. This reflects our views that Ofwat is right to challenge the industry in the way that has happened, but the cross-checks on the outcome may not have been sufficiently robust at draft determination phase.

As an example, Ofwat implements standardisation on outcome design, but then shows a very wide range of incentive risk as a percentage of RORE. It is not clearly justified as an approach, other than as a mechanical outcome of a review (illustrated through the P10:P90 shift and financially material ODI constraint approach). The wide range of RORE for Bristol Water in the draft determination, despite company specific adjustments to some extent in ODI interventions, reflects a methodology that is not robust, logical or appropriate.

As shown in Figure 2 below, the draft determination approach biases risk more for small water only companies than WASCs, in part because of their lower RCV per customer, and also because their WTP tends to be lower due to high trust and satisfaction and superior customer facing service levels. This creates increased outcomes risk when Ofwat's top down interventions are made. It is harder to balance performance across a smaller area and over water vs water and wastewater. The notionally efficient and performing WoC is therefore ignored in Ofwat's methodology, which is contrary to customer experience and preferences.

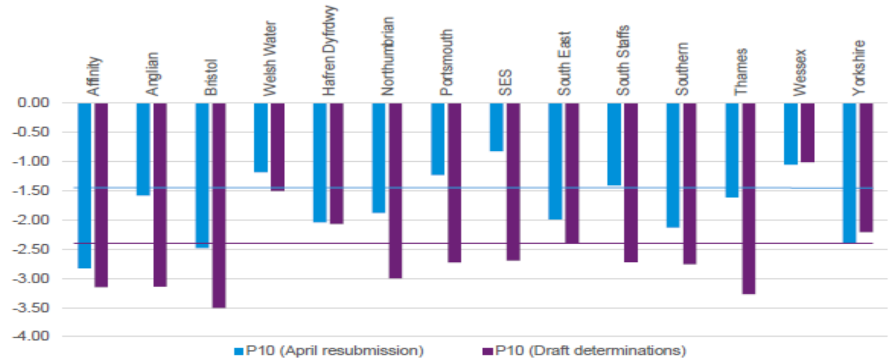


Figure 3: P10 values in April resubmission and draft determination

Customer views on incentive ranges

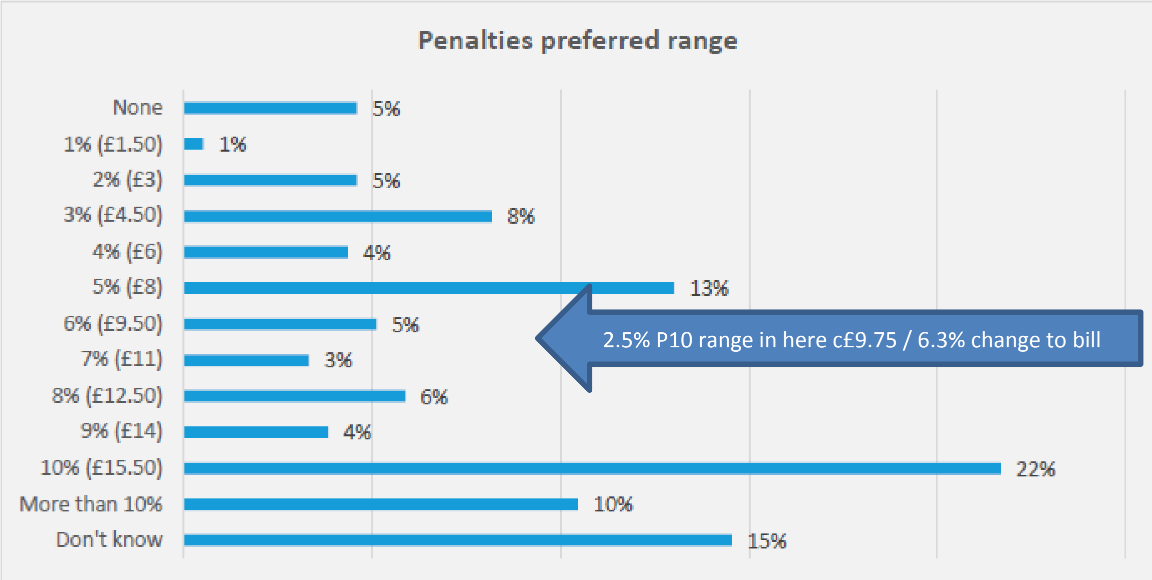
We have tested customer views extensively. We have majority customer support for all the outcome incentives, other than meter penetration. The strength of incentive also weights towards leakage, supply interruptions, drinking water compliance and mains bursts rather than metering, per capita consumption and voids. Customers support a more balanced out/underperformance range.

Our latest research is provided in the document ***A40. Draft Determination ODI Research August 2019.***

This research provides additional evidence that customers support the scale of underperformance in our plan level of 2.5% RORE (P10 level), although the customer range includes C-MEX as well which is an additional 0.5%. This excludes the wider 6% range of underperformance for exceptionally poor performance, although customers were considering their views on the full range.

Figure 4: Draft Determination ODI Research August 2019 – Preferred Range of Underperformance Penalties

Figure 5 below shows the results on preferred outperformance penalty range. The average value from this research equates to a 4.7% change to the average bill (when a 0.8% RORE impact – as proposed by our response, would be equivalent to a 3.0% change to the average bill).
below shows the results on preferred penalty range. The average value from this research equates a 7.3% change to the average bill (when a 2.5% RORE impact would be equivalent to a 6.3% change to the average bill).



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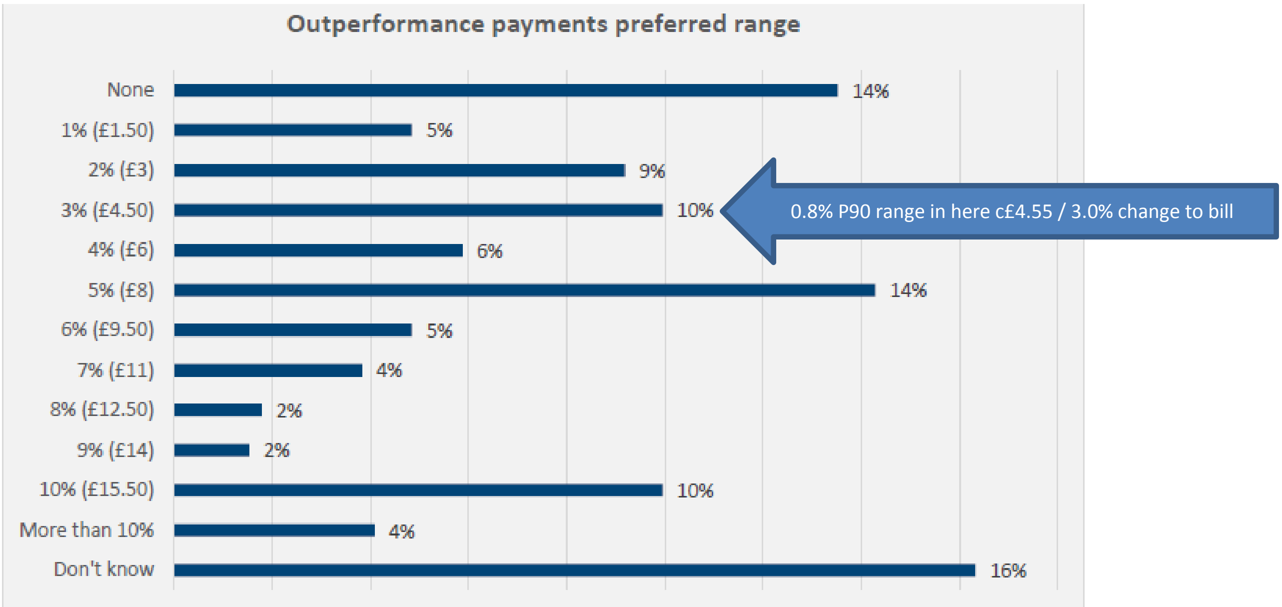

Figure 5: Draft Determination ODI Research August 2019 – Preferred Range of Outperformance Payments

Customers therefore support our balance of underperformance penalties and would also prefer for this to be more balanced with greater outperformance. Unfortunately this is not possible within the PR19 methodology in its application. We do not propose artificially inflating this e.g. through the use of enhanced incentive rates, as this was not supported by our customers who preferred value to be related to their views, rather than the impact on the wider industry. We would note that our leakage performance is at the industry frontier, and we will continue to innovate, collaborate and share our approach with other companies as we improve it further.

Customers indicated they were equally supportive of the package developed based on Bristol Water's customer views, or proposed by Ofwat based on benchmarking water companies against each other. However, overall customer support for the level of incentives is much more aligned with the Bristol Water plan. When discussed in more depth at the Bristol Water customer forum, there were stronger views towards the Bristol Water package of incentives, as well as a scale of incentives that also matched that in the survey. The main preference confirmed earlier customer research – a view that incentives should focus on top priorities such as leakage and supply interruptions, not penalise for adverse weather circumstances, and not to place strong incentives on metering and per capita consumption as customer felt that these incentives could be divisive. The full research write up is provided in ***A3f. Customer Forum August 2019***.

Ofwat's review of ODI incentives and interventions should have relied more on evidence than judgement. This is the largest area of hidden risk in the draft determination.

Recalibrated ODI range

Ofwat quotes a P10 ODI range of -3.5% for the draft determination – this is in excess of other companies. Our own estimate, given the interventions is -4.6%.

It is odd that Ofwat relies on comparisons, but then do not question the wide range of outcome incentive interventions, or the impact of them. In our response to the fast track draft determinations we raised this issue but it was not addressed by Ofwat at the draft determination. Although Ofwat has asked for additional data tables on outcome designs, this does not provide any confidence or certainty that the Final Determination will not raise a different set of comparative challenges, with a further set of detailed interventions, without the logic and long term impact being explained adequately.

Below we show our revised incentive package in comparison to the draft determination. For the draft determination illustration, we have assumed that voids performance risk will not rise above 5% and metering fall below 57.5% – the theoretical incentives for voids are 20 times greater than shown.

In our response, we largely eliminate unlikely large penalty incentives where CRI penalties or DWI enforcement would take place in any case should we fail. Third party risk to metrics such as supply interruptions also justify a reduction in incentive risk, so that incentives are better balanced to customer priorities and industry asset evidence and logic.

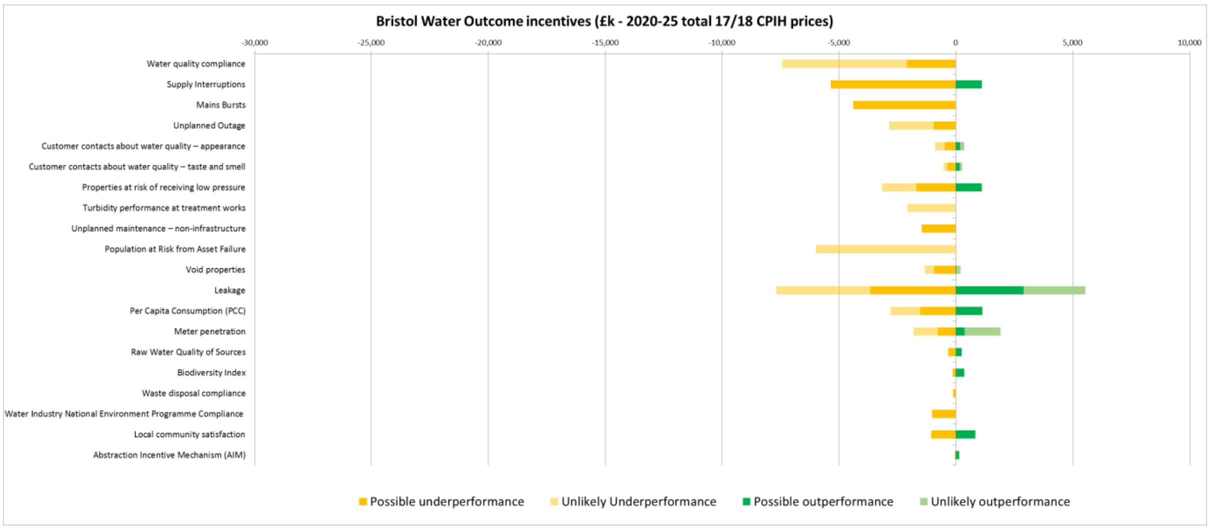

Figure 6: Outcome incentives proposed in our draft determination response

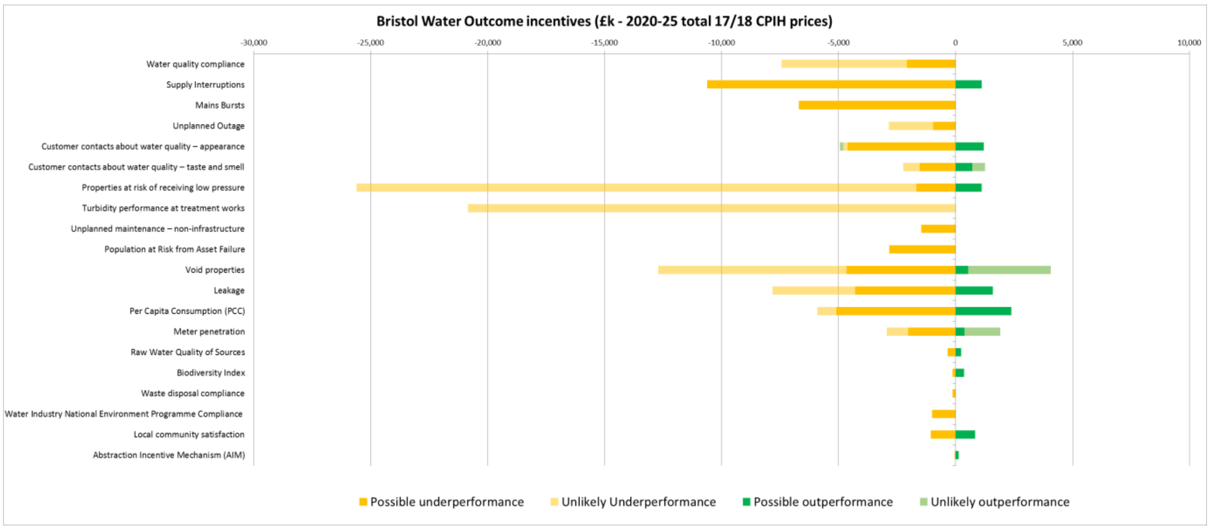

Figure 7: Outcome incentives from the draft determination

8 Financial issues

Ofwat's expectation on Boards to provide financial resilience assurance on an unjustifiably low cost of capital is inconsistent with Ofwat's duties. We provide assurance consistent with our response to the draft determination. We also provide assurance that we will continue to comply with our licence obligations to maintain an investment grade rating. We update our financial resilience scenarios to illustrate this, and describe how the Board will continue to ensure that Bristol Water meets its obligations to customers.

8.1 Financial resilience

The strength of challenge to long-term financial resilience that the draft determination represents risks companies undertaking inefficient financing for the long-term, because of the short term inconsistency between Ofwat's draft determination assumptions and the financial needs of the water sector overall. Companies can manage short term financial ratio challenges through financial restructuring, but in our view this should not be triggered by notional financing assumptions as appears to be the case at the draft determination. Ofwat has worked hard to force some in the industry to resolve the transparency and legitimacy concerns that past financial restructuring has caused through the "sector back in balance" work, which we have supported. We are therefore concerned by short term financing assumptions that imply that the industry will need to restructure existing efficient financing in order to meet its obligations, particularly given the higher notional efficient cost of small local water companies.

The revised plan submitted in April was supported by Board assurance that the plan was financeable over the long term. This considered that notional financing should remain in line with Moody's Baa1 expectations. The draft determination is not consistent with this, even at the cost of capital before the 40bps reduction Ofwat proposes. We also considered that, because of our low new financing requirement, we could maintain a Baa2 investment grade credit rating without incurring additional financing costs. We also demonstrated how we would maintain this financial resilience, reflecting that our significant cost risks were from the Canal & River Trust (where Ofwat agrees that a Notified Item is appropriate) and that customers support incentive changes with the bill impact mitigated to £2.5m p.a., to avoid bill volatility. We took into consideration that Moody's had placed Bristol Water plc on negative watch for a one notch downgrade from Baa1 to Baa2 as a result of PR19.

We discuss our financeability further in BW04. The conclusion of our assessment is that our draft determination response on the cost of capital is necessary for efficient notional financing for the industry as a whole. We also demonstrate that it is necessary for the actual financing of our efficiently incurred embedded debt. We demonstrate that, even with assumptions on efficient cost and successful outcome delivery, a 4% equity return is insufficient to cover our efficient forecast debt costs, even without any equity returns. The financial ratios Ofwat uses in financeability assessment at the draft determination show a positive picture for Bristol Water compared to other companies – the assessment has limitations, and Ofwat should consider the alternate cash interest cover ratio.

We explore some of the evidence below, and describe the impact on Bristol Water of alternative assumptions.

8.2 Cost of capital

Ofwat has done a thorough job in assessing the cost of capital. The evidence for a lower equity beta is based on two listed companies, and is driven to implausibly low levels based on two-year averages, rather than at levels that would reflect expected returns for the industry as a whole. These companies are somewhat immune to the risks Ofwat now sets out (including the changes in methodology) in the draft determination which must, if left uncorrected for the final determination, increase the industry relative risk to other sectors and the market as a whole.

No single organisation reflects the upper quartile for service and totex efficiency –considering either costs (particularly with enhancement cost challenges) or incentives. No individual companies can be expected to achieve these targets and no evidence is presented as to an assessment of this likelihood. The expected return must therefore be lower than the cost of equity Ofwat assumes, even more so if Ofwat lowers it further at the final determination and this reduces equity headroom further.

This is particularly true for water only companies. Ofwat continues to define notional efficiency with respect to WASCs, such as increasing the embedded debt outperformance “halo” from the cost of embedded debt. Ofwat’s own evidence in the Company Specific Adjustment calculation that was provided to us suggests this estimate is overstated. This is an example of selective use of evidence, rather than considering consistent assumptions, within the draft determination.

Instead Ofwat prefers a benefits test of little validity, rather than being consistent in setting a) a cost of debt for the industry without an increased 25bps outperformance halo, when the evidence suggests 10bps to the relevant IBOXX index and b) a 40bps embedded debt cost of debt premium for all the small water only companies – where customers strongly support this as both Bristol and Portsmouth have demonstrated. We assume SES and SSC could show similar support levels with similar structural reasons to assume an embedded debt premium, as Ofwat’s own evidence clearly demonstrates.

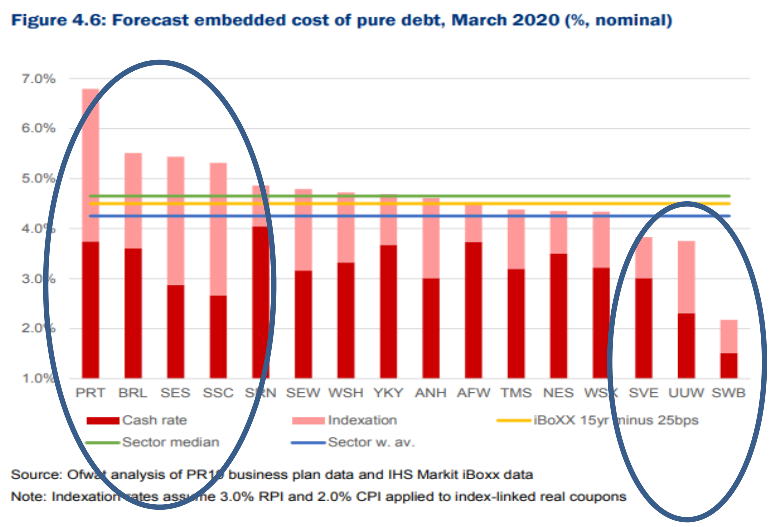

Figure 8: Figure 4.6 from Ofwat’s draft determination cost of capital technical appendix

Summary table	Woc Spread	WaSC spread	Difference	Cost of carry
Spread to gilts - unweighted	1.42%	0.97%	0.45%	
Spread to gilts - weighted	1.34%	1.02%	0.32%	
Spread to Iboxx Avg - unweighted	0.16%	-0.25%	0.41%	
Spread to Iboxx Avg- weighted	0.12%	-0.23%	0.35%	
Spread to relevant Iboxx - unweighted	0.33%	-0.07%	0.40%	10-15bps
Spread to relevant Iboxx - weighted	0.28%	-0.12%	0.40%	10-15bps

Table 3: Summary table from the Ofwat document 'BRL CSA Analysis – Level of uplift.xls'

We propose a cost of capital that is higher than Ofwat's draft determination on the cost of equity, and reflects the draft determination on the cost of debt, plus 38bps from a small company specific cost of capital adjustments (CSA) (40bps on embedded debt and 30bps on new debt). This equates to 2.5% vanilla WACC on an RPI real basis. We have not made an adjustment for our actual split between new and embedded debt, but highlight that our requirement for new debt over the period is low, such that the balance between embedded and new debt further exacerbates our concerns regarding the allowed cost of debt below.

A review by Economic Insight suggests that a higher cost of equity for the whole industry, and a small company cost of debt premium of 40bps as well as a small company premium of 16% on the cost of equity is supported by the evidence. The cost of capital we set out above is at the low end of their assessment for the industry as a whole, even with our small company cost of debt adjustment included. This provides strong support that our proposals reflect an efficient cost of finance and is the minimum consistent with customer's interests for stable long term financing of the water industry.

We do not agree that the cost of equity should reduce for the draft determination or further for the final determination as Ofwat indicates – we demonstrate that this is largely based on short term evidence on betas for United Utilities and Severn Trent, and therefore does not reflect an appropriate level for a notionally efficient water only company. As a result, we have adopted a higher cost of equity in our response than Ofwat indicates in the draft determination, but believe that this is at the lowest end of the range acceptable for the industry as a whole.

We show below our proposed cost of capital compared to the alternatives.

		With small company premium	Without small company premium	Draft Determination	Draft Determination less 40 bps	Economic Insight Low range (no SCP)
Notional gearing	%	60.00%	60.00%	60.00%	60.00%	60.00%
Total Market Return (TMR)	%	8.63%	8.63%	8.63%	8.63%	9.14%
Risk free rate (RFR)	%	1.54%	1.54%	1.54%	0.99%	1.69%
Equity Risk Premium (ERP)	%	7.09%	7.09%	7.09%	7.64%	7.45%
Debt beta	dec	0.125	0.125	0.125	0.125	0.10
Raw equity beta for listed company comparator	%	68.00%	68.00%	64.00%	57.70%	69.16%
Actual gearing of listed company comparator	%	54.70%	54.70%	54.70%	54.70%	54.70%
Asset beta	dec	0.38	0.38	0.36	0.33	0.37
Re-levered equity beta	dec	0.75	0.75	0.71	0.64	0.77
Overall cost of equity (used in WACC)	%	6.88%	6.88%	6.56%	5.86%	7.43%
Cost of embedded debt	%	4.90%	4.50%	4.50%	4.50%	4.50%
Cost of new debt	%	3.66%	3.36%	3.36%	2.61%	3.46%
Ratio of embedded to new debt	%	80.00%	80.00%	80.00%	80.00%	80.00%
Issuance and liquidity costs	%	0.10%	0.10%	0.10%	0.10%	0.10%
Overall cost of debt (used in WACC)	%	4.75%	4.37%	4.37%	4.22%	4.39%
WACC ~ vanilla (pre-tax cost of debt and post-tax cost of equity)	%	5.60%	5.38%	5.25%	4.88%	5.61%
Tax (marginal rate of corporation tax)	%	17.00%	17.00%	17.00%	17.00%	17.00%
WACC ~ fully post-tax	%	5.12%	4.93%	4.80%	4.44%	5.16%
Retail margin deduction	%	0.11%	0.10%	0.11%	0.11%	0.10%
Wholesale WACC	%	5.49%	5.27%	5.14%	4.77%	5.50%

Table 4: Proposed cost of capital comparison

Equity dividends have been based on a dividend yield of 3.4% and real growth of 0.9% p.a. - a total blended RPI/CPI cost of equity of 4.3%. This uses the 80:20 notional to new debt ratio to split between dividend yield and real growth.

We have continued to work with KPMG to analyse the benefits test within Ofwat's methodology for assessing the Company Specific Adjustments to the cost of capital (CSA). Alongside our own analysis, and without assuming any improvements to the historic efficiency modelling which we set out in BW02 – cost & efficiency representation, we are confident we pass this assessment, once reasonable adjustments are made to the existing methodology. Reflecting our actual CSA proposal (38bps), rather than the mechanical 44bps that Ofwat claims was our case at the draft determination (in reality, we proposed 38bps) reduces the cost of the uplift by £3m. Rolling forward the non-totex benefit value from 2025, rather than the average over 2020-25 to future periods, another simple corrected assumption, also changes the result of Ofwat's test. The results of these adjustments are reflected in the table below:

CSA Forward looking NPV for Bristol Water £m	Draft determination - just changed for cost of uplift and post 2025 non-totex benefits	Ofwat draft determination
Base water wholesale totex	7	7
Contribution of non-base totex factors	23	12
Cost of uplift	-20	-23
NPV	**9**	**-5**

Table 5: Draft determination changed for cost of uplift and post 2025 non-totex benefits only

KPMG (**BW04-1 *Setting a company-specific adjustment to the allowed cost of capital for Bristol Water*)** conclude that the CSA benefit ranges from -£1.4m to +£85.6m from a range of scenarios for both totex and non-totex benefits, with a mid-point of £43.5m. This is a more sophisticated process than the simple adjustments we illustrate above (shown in **BW04-4 CSA benefit spreadsheet**). This is based on the core Ofwat CSA benefit analysis methodology. Further changes that KPMG also consider our valid extend this range to £47m - £219m.

We do not accept the validity of the CSA test, given that the historic embedded debt cost was efficiency incurred; however, notwithstanding this fact, we clearly pass Ofwat's test and therefore, based on Ofwat's own criteria, we are confident that Ofwat will be able to include a cost of capital including our CSA proposal in the PR19 final determination.

We clearly demonstrate that small companies like Bristol Water are trusted by customers, and this lowers the WTP for improvements, but also creates a strong support for the additional cost of finance associated with small, local companies, with a deep connection to the community. Ofwat has recognised this, but not when considering outcome incentives and the cost of capital at PR19.

Operational gearing for a smaller company is ignored (the low RCV per customer of a WOC and in our case a low enhancement plan, because as far as regulators like the DWI and EA are concerned performance is good and risks to customers and the environment low). We had so far in PR19 assumed that we would include a cost of equity for small companies with our PR19 proposals – based on the balance of risk in our plan. However, based on the draft determination for the cost of capital and the cost and incentive challenges imposed top down based on WASC-weighted analysis, a cost of equity premium could prove to be justified.

8.3 Financeability and financial scenarios

Ofwat's main ask of responding to the draft determination is for the Board to provide financial resilience assurance, that services can continue to be delivered in the face of a range of shocks, with a 40bps further reduction to the cost of capital. Ultimately the draft determination does not provide sufficient return on capital to cover efficiently incurred interest costs.

We can commit to continuing to meet our licence obligations to maintain an investment grade credit rating, irrespective of the final outcome of PR19. We provide evidence, similar to that in our original and revised plan, which assesses this. *In extremis* this may rely on financing restructuring which goes against the general trend in the industry. Whilst this has been used for company specific financing situations in the past, and can be done transparently, this feels inconsistent with Ofwat's "sector balance" approach. The potential does not mean that Ofwat should avoid its duty to ensure that efficiently incurred costs and financing is maintained.

Given the uncertainties and errors in significant aspects of Ofwat's draft determination, this limits the ability for the Board to provide reassurance on potential outcomes not based on our response to the draft determination. We reflect our testing of financial scenarios in detail as well as the actions we commit to take to fulfil our legal obligations now and in the future.

Our response to the draft determination suggests financial ratios for Moody's AICR just below the 1.25x level suggested in our revised business plan, despite improved forecast performance for AMP6 and lower forecast interest rates.

We have aligned the inflation forecasts within the Ofwat financial model and feeder models to latest ONS information and Bank of England forecasts (for 2018/19 and 2019/20). The various feeder models and financial model used in the draft determination had slightly different inflation assumptions and had not been updated for 2018/19 actuals throughout.

For notional ratios, Ofwat should target Moody's AICR of c1.5x to be consistent with Baa1 notional ratios, which is the equivalent of the alternative ratio shown in the financial model. Our response to the Draft determination on a notional basis, but including our CSA adjustment, achieves this 1.5x in the later years of the plan using a cost of capital of 2.5% RPI real.

This confirms our view of both our cost of capital, and that Ofwat should not profile revenues as part of the notional model outputs. In addition, critical to the Board's financeability assessment of the Company are also the ratios on the actual balance sheet and the Company's corporate model. These are set out in the table below and show stress on the Moody's AICR ratio in particular, even when targeting a Baa2 rating and assuming the cost of capital noted above, as well as expenditure in line with the proposed allowance and in the absence of any AMP7 penalties.

We summarise the outputs of our financial stress testing scenarios in the table below:

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**	**1.40x**	**12.4%**	**1.16x**	**9.3%**	**1.23x**	**8.9%**
Base plan without CSA	Mitigated with returns	1.40x	12.3%			1.15x	8.5%
Scenario 1: 10% totex increase	Mitigated with returns	1.25x	9.7%	1.09x	7.2%	1.07x	6.5%
Scenario 2b: Low inflation	OK	1.39x	12.3%	1.09x	8.4%	1.20x	9.2%
Scenario 3: Bad Debt	OK	1.40x	12.4%	1.16x	9.3%	1.22x	8.8%
Scenario 4a: £2.5m cap on ODI adjustments	Mitigated with returns	1.21x	11.9%	0.97x	8.7%	1.03x	8.2%
Scenario 5: New debt financing	OK	1.40x	12.4%	1.16x	9.3%	1.24x	8.9%
Scenario 6: Fine of 3% turnover	OK	1.40x	11.5%	1.16x	8.5%	1.22x	8.2%
Combined scenario 7 10% totex, 3% ODI year 3 (£2.5m cap) 1% turnover fine)	Fails viability	1.01x	8.6%	0.96x	6.7%	0.65x	4.8%
Scenario 8a: Cost of capital as per DD (no CSA)	Debt restructuring (long term)	1.33x	12.1%			1.09x	8.2%
Scenario 8b: Cost of capital DD-40bps (no CSA)	Debt restructuring	1.32x	11.9%			1.01x	7.8%
Combined scenario 11 With ODI cap and canal cost mitigation	Mitigated with returns	1.03x	8.8%	0.96x	6.7%	0.77x	6.4%
Combined scenario 12 - as 11 with cost of capital as per DD (no CSA)	Fails viability, implies forced Debt restructuring	0.94x	8.3%			0.65x	5.8%
Combined scenario 12 - as 11 with cost of capital as per DD - 40bps (no CSA)	Fails viability, forces Uncertain mixture of equity and debt restructuring	0.90x	8.2%			0.57x	5.5%

Table 6: Output of financial stress testing scenarios

The Board's task was not assisted by the significant changes in methodology in the draft determination from the PR19 methodology (see Section 4**Error! Reference source not found.** above) and on top of this, Ofwat signals a number of further changes in methodology in the Final Determination (see Section 4.3 above).

Ofwat knows that our financial ratios are tight, and puts Bristol under extra scrutiny for our Board assurance as a result (although in the relevant draft determination policy document it refers to high gearing, which is not the case for Bristol Water). We believe these financial ratio concerns apply across the industry, but is particularly acute given a cost of capital methodology that focuses on WASCs, and then puts additional barriers in the way for a notional WoC to ensure its efficient functions can be financed. Positive equity returns, even before a potential 40bps reduction, seem highly unlikely for a notional company, even before you consider a small company like Bristol Water.

In the draft determination, Ofwat puts additional pressure on financial ratios by re-profiling revenues because of a potential £2 bill change in 2025/26. This is too low a change to justify re-profiling given the normal bill variation that could be expected at PR24, or in any individual year. We assume no revenue re-profiling in our draft determination response, and Ofwat should only intervene for clear and material reasons to do so, rather than as standard.

9 Return on Regulated Equity

The draft determination did not present an accurate view of industry risk. On ODIs it assumed a calibrated range of underperformance P10 risk of 3.5%, which in reality was 4.6% when taking into account the increase in risk when performance interventions were changed. Further, Ofwat did not update the RoRE range for some policy changes, such as the skewed and increased D-MEX proposals.

Our response to the draft determination presents a Return on Regulated Equity range similar to our revised plan. This is largely through calibrating outcomes incentives to -2.5% to +0.8% from the more stretched draft determination. This remains above the industry average for underperformance risk even based upon the draft determination.

The conundrum we face is how we can consider the incentives package in the draft determination within a RoRE framework which may not show any positive equity returns in practice, from a Bristol Water perspective. We have reflected hard about this, including presenting a thinkpiece we have collaborated with ICS Consulting to produce *"Will it all be Upper Futile in the End?: Reflections on where we are headed with incentives in the water sector"* which demonstrates how stretching this conundrum is, particularly given the differences between water and wastewater services. The piece is designed to be thought provoking, as ownership of the incentive balance goes to the heart of public service provision from the water sector to customers. ICS observes:

> There is also a sense that the outcome on ODIs that Ofwat has duly delivered in the Draft Determinations doesn't yet quite match up to its methodological commitments. For a start, ODIs as conceived at the beginning of PR19 represented a top and tail to the overall regulatory framework. A bit of icing on any outperformance cake or a reminder that underperformance would cost companies money and PR19 was about providing a bit of stretch to both.
>
> But the climate that has rained on PR19 suggests ever so subtlety and perhaps unwittingly that the ODIs carrots and sticks have in reality offered a useful barometer of how tough the regulatory settlement could be. Being tough on water company execs and the returns they can deliver would sit quite comfortably with the Khruschev like message that people running water companies just needed to be made to work harder. A case perhaps of the temptation to side with "could we tweak the ODIs" appearing too great without asking "should we tweak the ODIs".

Our revised plan RORE at PR19 was forecast to be -1% to +8.4%. This aligned with the Ofwat methodology, which suggests RORE of 4.7% real cost of equity (50% RPI, 50% CPIH) +4% / -5%, taking into account +/- 2-3% for ODIs and c.+/- 2% for Totex.

The lower cost of equity at the draft determination lowers the RORE central point from 4.7% to 4.1% (and could reduce to 3.8% at the Final Determination). However the underperformance risk range has increased, from -5.7% to -6.8% based on Ofwat's view, -8.0% based on our initial view of the ODI changes (which is higher than Ofwat's high level interpretation), and -12.7% if totex risk was taken into account (although Ofwat argues RORE is based on notional efficiency). As we show below, our draft determination response suggests a 4.5% real cost of equity, with a range from -1.1% to +7.9%.

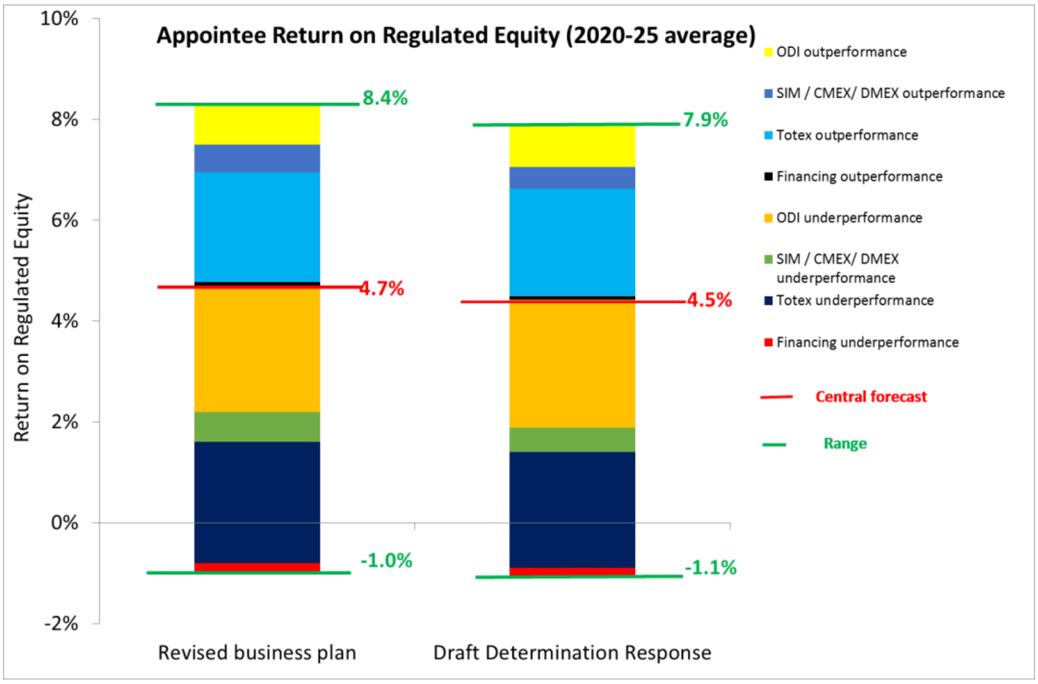

Figure 9: Appointee Return on Regulated Equity

There were many draft determination outcome interventions that were inconsistent with the regulatory framework and the cost of capital. For instance an uncapped void incentive based on the wholesale bill that assumed that all voids were occupied, effectively removes the benefits of a revenue control on reducing revenue risk in its entirety. We do not accept these interventions and do not consider it useful to analyse them in a notional RORE analysis.

The Ofwat draft determination skews incentive ranges, both on cost and efficiency, and did not present an accurate picture of these interventions. We calculated however that ODI risks were significantly higher than the -3.5% that Ofwat presents, and that totex had not been considered properly by Ofwat because base and enhancement judgements had not been considered together. P10 ODI ranges of -4.6% more than offset the 4% cost of equity. Ofwat does not scale ODI standardised ranges to equity returns but to household comparisons. Totex challenges add to this skewed risk for Bristol Water, after adjusting for our analysis of what reflects an efficiency challenge on totex and what reflects Ofwat assessments that do not reflect totex consistently. This analysis ignores some of the extreme risks in the draft determination that lie outside of P10 (such as the potential £395m penalty on voids). The full risk range capping voids risk aggressively at 5% is -11% RORE, even in isolation this is three times the equity returns, before considering totex risks that would arise in extreme circumstances such as this.

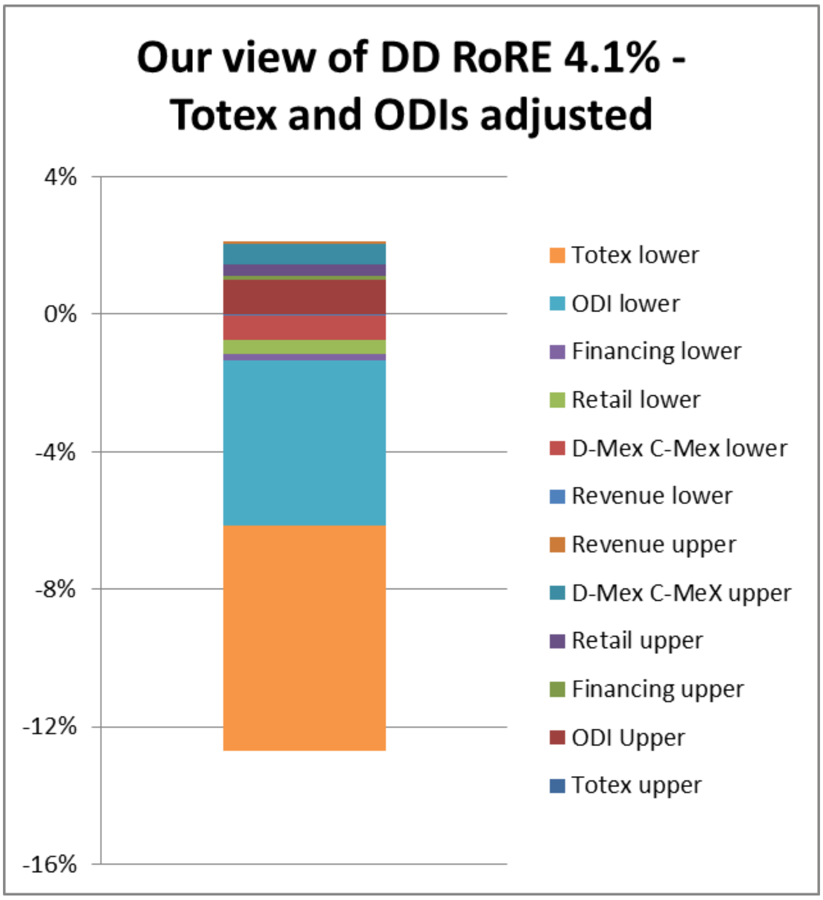

Figure 10: Our view of RORE in the draft determination

Ofwat's own comparisons in the draft determination illustrate that the base and total wholesale cost challenge for Bristol Water was beyond that proposed for most other companies. As we show below, our response moderates this to more credible levels, by demonstrating adjustments Ofwat can sensibly make to efficiency assessment.

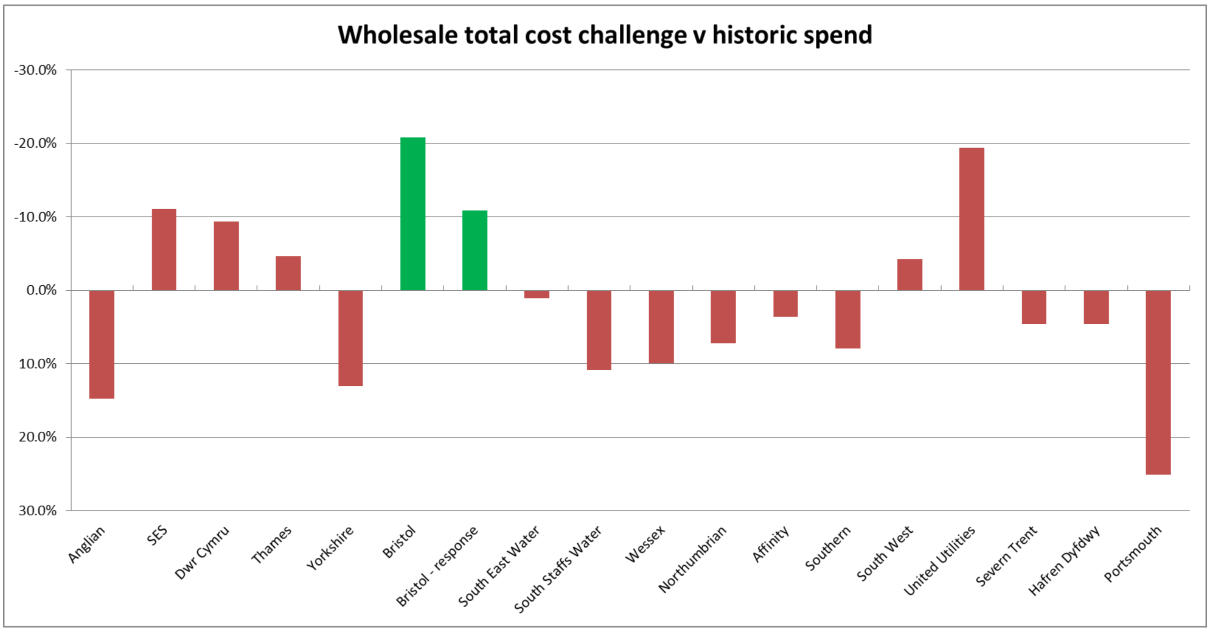

Figure 11: Wholesale total cost challenge versus historic spend

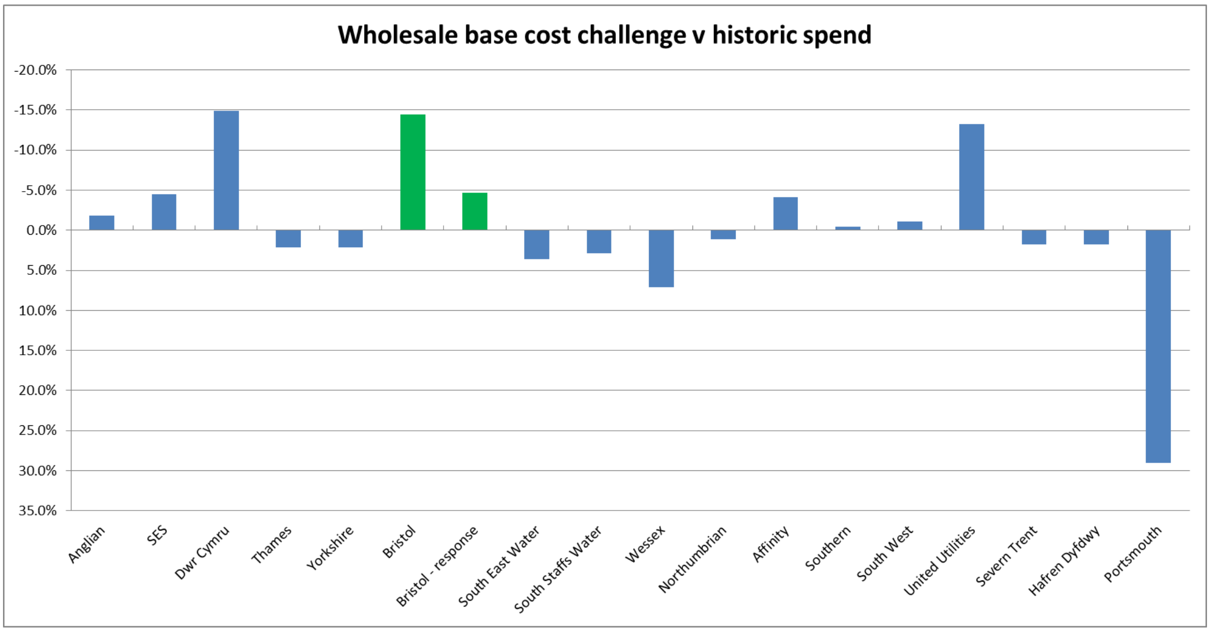

Figure 12: Wholesale base cost challenge versus historic spend

The balanced RoRE position we present for the notionally efficient Bristol Water in response to the draft determination therefore requires the range of assumptions and proposals we make in our representations.

10 Progress update on our Transformation Programme (one year on)

A Transformation programme was initially setup at Bristol Water in early 2018 to substantially improve the internal capability of our people, processes and technology, as well as how we work and collaborate with our supply chain. The objective of the Programme is to deliver early benefits in AMP6, as well as prepare the company for the tough challenges in both efficiency and delivery of customer outcomes in AMP7.

We have made excellent progress against all areas of the Transformation programme. This section highlights some of the achievements to date and provides an update on progress with the Transformation Programme.

Some of the highlights of the programme so far include:

- Our response to draft determination includes a very challenging Totex efficiency level of c.80m over AMP7. The Transformation Programme has identified just over 50% of the efficiencies in current initiatives with a good level of confidence in delivery, with another c. 20% in early evaluation stage. This reflects a substantial share of our proposed efficiencies, considering that it does not cover business as usual savings and other innovation opportunities.
- We have appointed an experienced Transformation Director, reporting directly to the CEO, to work with the Executive team and to develop and implement the transformational initiatives across Bristol Water. The Board of Bristol Water is fully engaged with the Transformation Programme, receiving quarterly updates on progress.
- We have appointed three new supply chain partners for delivery of all Network Maintenance activities of Bristol Water, starting on 1st October 2019. This will deliver improved Totex efficiency, better customer experience and increased confidence on outcome delivery for customers.
- We have transformed our Asset Management Capability resulting in better and more focused Totex decisions for both AMP6 and AMP7, leading to improved efficiency and confidence on delivery of outcomes such as achieving our leakage targets in the last and current financial years, and into AMP7.
- We are on track to deliver an innovative Network Optimisation and Automation project by installing a fully integrated system to manage and automate all water production and pumping schedules, leading to reduced energy costs in readiness for AMP7.
- We are on track to install a gas-fired power station to move our largest water production site at Purton towards self-sufficiency from the electricity grid, reducing energy costs and improving our carbon foot-print in readiness for AMP7.

Delivering for customers and the community

Our Transformation approach has already seen great outcomes in the enhanced way we service our customers and communities. During the year service improvements were recognised by the Institute of Customer Services with the award of their 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 and an assessment of employee engagement within Bristol Water.

We have invested in new processes and systems to engage with customers in new ways providing real time feedback for front line staff supported by enhanced service training. This has resulted in improvements in first time resolution of customer contacts and positive reputational feedback. Subsequently our written complaints reduced by 19% and unwanted calls by 27% overall in the year with written complaints down by 49% in the final quarter.

Service performance improvements to our wider customer activities such as New Connections and Developer Services have also been delivered through greater ownership of the end to end customer journey. One measurement of this is the Water UK development services comparison data where we have moved significantly up the rankings and stayed there. In the Business Retail Market the industry received its first rankings based on comparative performance and Bristol Water ranked 1st overall which endorsed the focus we have put on making this new competitive market work for customers and business.

Delivering for the community remains a major focus as we transform. The Bristol Water Bar is an innovative, free to use, pop-up bar promoting the benefits of tap water. This year our passionate teams have taken the bar on the road to local festivals and events in a mission to fight against plastic waste.

We have also been actively promoting and delivering new public Refill drinking water stations with Bristol's busiest areas benefiting from eight new free-to-use water fountains in a bid to fight against plastic waste. The new water fountains will quadruple the number of refill fountains that will be installed by the end of the year in partnership with Bristol City Council and Bristol Waste. Collectively, they will prevent the equivalent of 50 miles of plastic bottle waste and save local people half a million pounds a year, versus bottled alternatives.

Supply Chain Transformation

We embarked on transforming our supply chain in 2018 and have successfully appointed three new contractors who will start 5-year contracts on 1st October 2019 to cover all aspects of our water network maintenance. This Network Maintenance Supply Chain (NMSC) project is a major milestone in our company's history, and critical for our preparations for the next AMP period. The new contracts and new ways of working are designed to deliver over 10% of the overall Business Plan Totex efficiency over the AMP7 period and include:

- Bringing control of planning, design, scheduling, and prioritisation of all network maintenance work back in house to improve the services we deliver to our customers.
- New contractors working in partnership with us, as our delivery partners, sharing the same business objectives of customer excellence, operational safety and efficiency.
- All contractors using our systems and working seamlessly across our processes.
- All working under our brand, demonstrating and living our values, and enhancing our reputation.

People and Culture: Purpose, Values and Competencies

In 2018 we launched a series of internal and external initiatives to re-set our company purpose and values, and early in 2019 launched the first Social Contract in the industry. These initiatives are designed to engage the employees and to re-orientate the organisation towards an ambitious, fast-changing, customer centric and efficient water company. In May this year we launched a company-wide competency framework to under-pin the behaviours and technical capabilities of the workforce. As we show in our systems-thinking action plan and our outcome delivery strategies, this way of working is as important to many of our performance commitments as traditional optimised totex asset investments.

Asset Management Capability Improvement: Asset Strategies, Asset Planning, Data and Information Management

Our Asset Management Capability Improvement Programme achieved a milestone in its maturity development this year when it was independently assessed as “Fit-for-purpose” against the maturity framework of the Institute of Asset Management. The improvements in our asset strategy and planning have resulted in better Totex decisions for both AMP6 and AMP7, leading to improved efficiency and confidence on delivery of outcomes (such as achieving our leakage targets in last and current financial years) and into AMP7. Further improvements plans are documented in the “systems thinking” action plan.

Energy Optimisation

We are on track to deliver an innovative Network Optimisation and Automation project (NOEM) by installing a fully integrated system to manage and automate all water production and pumping schedules, leading to reduced energy costs in readiness for AMP7. We are also on track to install a gas-fired power station to make our largest water production site at Purton approaching self-sufficiency from the electricity grid, reducing energy costs and improving our carbon foot-print in readiness for AMP7. These two projects are designed to deliver just under 10% of the overall Business Plan Totex efficiency over the AMP7 period.

Organisation and Operating Model: Centralised operations planning and work scheduling, Lean Support Services

We strongly believe that the accountability to deliver an excellent service to our customers should sit internally. In order to implement the new ways of working and integrate the new delivery partners with Bristol Water, we are making changes to the network organisation, structure and roles within areas impacted by the new NMSC contract. We are making these changes now to ensure we are operationally ready for when the new contracts commence on 1 October.

Innovation and Continuous Improvement

We have taken great strides in making innovation and continuous improvement embedded in the day to day operation of our business.

We have taken great strides in embedding innovation and continuous improvement in the day to day operation of our business.

One example of the application of Continuous Improvement practice of *"Analyse Performance, Understand Root Causes, Act"* is the approach to target the reduction of written complaints over the past 18 months (further described in the BW02-06 Deliverability document). The graph below shows how a series of operational incidents that affected major mains burst and supply interruption events driven by external factors had resulted in peaks in complaints, but improved operational performance and complaint handling has smoothed this out. The graph is normalised to set each metric to 100 at April 2017:

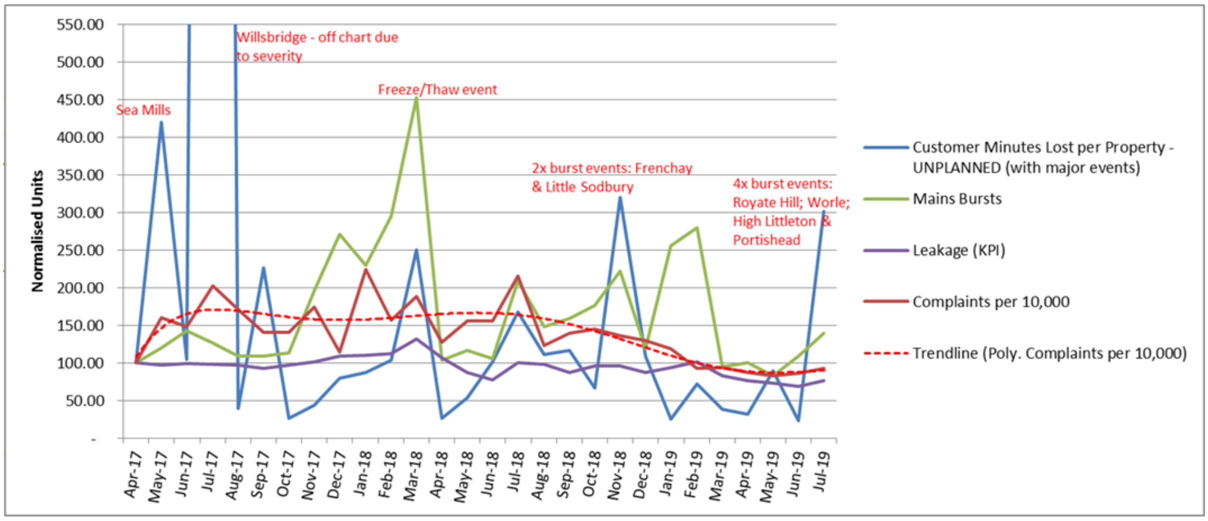

Figure 13: Relationship between service levels and customer complaints

Improved supply interruption and mains burst performance is one factor in reducing customer complaints performance. Generally, most events that are handled well mean that the uptick in complaints is short lived. For bursts, the main spike with the Freeze-thaw event in March 2018 saw few complaints, in part because the weather was so severe that customers understood and the response for any issues that arose was handled effectively. What we can see is even where incidents are handled well, the disruption to our operations after a major event can make a difference to the general improved trajectory. With supply interruptions, the service response we have in place shows less peaks in complaints, as well as less peaks in supply interruptions and bursts.

Improved delivery means we have for now substantially de-coupled customer complaints from operational incidents and "smoothed" the written complaints performance, noting that:

a) the causes of asset performance are now better understood,

b) learning from operational events quickly translates into improvements,

c) the causes of customer complaints and improved handling as operational circumstances change quickly reacts and turns into improved performance, and

d) the world is not static and neither are we – as changes and trends emerge, we do not assume that the past will necessarily be the only guide to the future of these relationships.

We have had a successful employee innovation programme (Brainwaves) in operation for the past three years. We have collaborated with local technology start-ups and acted as technology incubators to implement technologies such as Robotics Process Automation (RPA) and in April 2019 we organised a region-wide innovation day in collaboration with partners including the West of England Combined Authority Mayor, local universities and innovation hubs. The latest innovation strides are documented in the update to "Bristol Water…Clearly Resilient" which contains our resilience action plan.

We have a thriving in-house LEAN business process improvement and training programme and are the first utility company to obtain accreditation to run an in-house LEAN Certification Scheme (LCS) for our employees.

11 Summary of our revised proposals

Bills - The impact of our response is that average bills are forecast to fall from £183 in 2019/20 to £174 in 2021 and £165 in 2025. This compares to a flat £155 in the draft determination and £175 in 2021 and £172 in 2025 in our revised plan. We do not propose re-profiling bills as this is not supported by financial ratios.

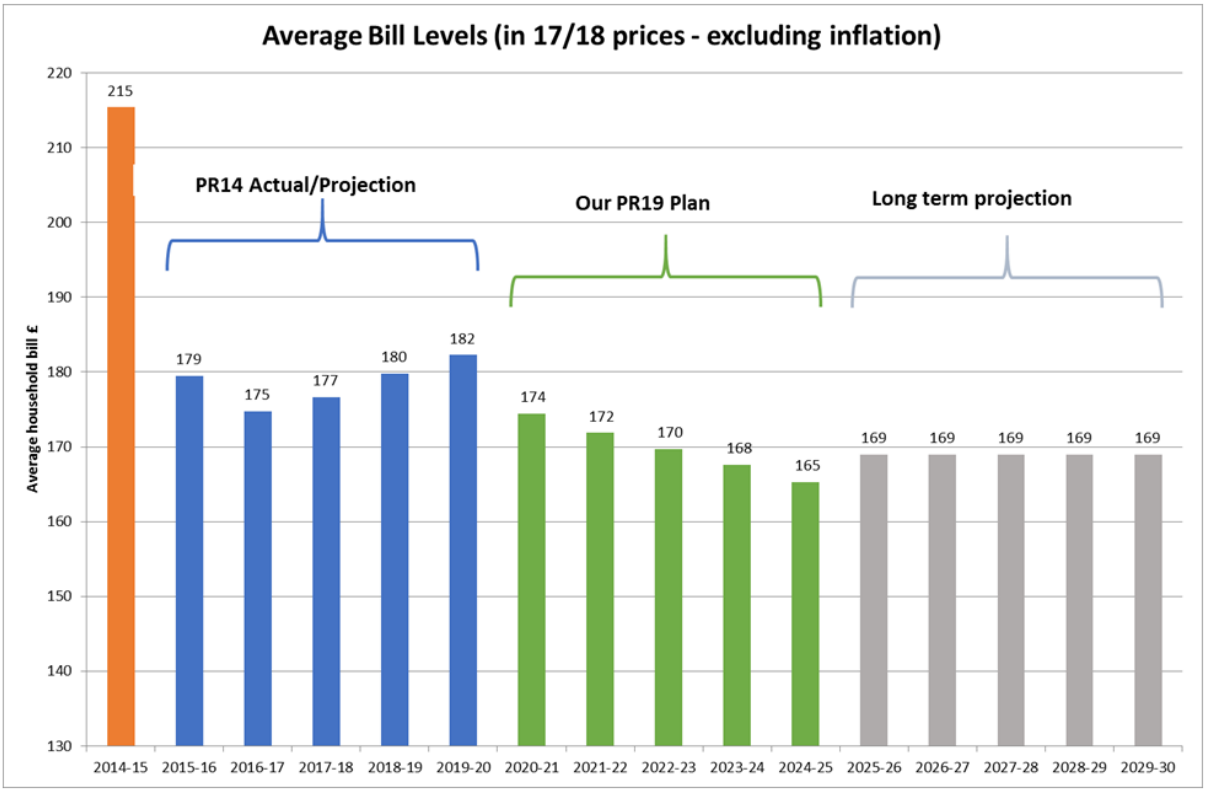

Figure 14: Average bill levels in our response (17/18 prices excluding inflation)

Financial resilience - Our actual financial ratios provide sufficient financial headroom to maintain Baa2 for 2020-25 based on our draft determination response as a package of assumptions.

Totex - We have reduced our costs by £15m since our revised plan, and provided compelling evidence for the remainder of the draft determination efficiency gap. Depending on the approach Ofwat takes, our response reflects efficiency costs, but if this proves not to be the case, given that it depends on other company responses and Ofwat's modelling approach, then ex-ante totex sharing revenue adjustments should be applied using the original PR19 methodology approach.

Outcomes – We consider Ofwat's outcome interventions on a case by case basis. Ultimately we propose a range consistent with the level of risk that we can support of 2.5% underperformance. This level of risk is consistent with customers' views, except we cannot in the PR19 methodology reflect customer views that there should be more symmetrical opportunities for outperformance due to the way that Ofwat applies the methodology. Ofwat could have allowed this potential for the resilience investment, but we acknowledge Ofwat's methodologies by suggesting a penalty only "output" ODI for delivery delay for our entire proposal, rather than just the Glastonbury – Street element.

We cannot accept Ofwat's "ODI range" methodology is superior to our customer research given that Ofwat has not addressed our response to their IAP action with the review from NERA of the innovative customer-tested triangulation. If Ofwat had chosen to work with companies to test this further through such an approach, which we proposed following the IAP, then we may have had more evidence to explain WTP variation across the country rather than unexplained statistical variation. We address all the points Ofwat raises on application of WTP in the draft determination, where a specific point can be identified.

We see the case for some balance in incentive rates towards customers compared to the company if there is a clear case of inefficiency compared to the average, but based on the draft determination with an upper quartile and a frontier shift there is a strong argument for 50:50. Given the nature of our response, we think the slope should be smoother and the challenge capped at the original proposals of c. 40:60. But we are of the view this should not apply further to ODI rates – this is a further complexity in the regulatory regime and puts further pressure on all companies to aim for the theoretical upper quartile company that does not, and cannot reasonably be expected, to exist.

Cost of capital – The impact of Ofwat's draft determination approach is that a small company cost of equity premium could be justified. This is not our preference, but will be necessary as an assumption to maintain sufficient equity headroom for the risks the industry faces unless the industry cost of equity is at minimum sufficient levels that we believe to be at least 6.9% nominal. We present ample evidence that we pass Ofwat's tests (although the benefit test is unstable to minor changes in Ofwat's PR19 methodology – we show we pass this test marginally across a range of Ofwat's assumptions and by a significant margin with alternative approaches).

We have however considered the company specific cost of debt premium further. KPMG have adjusted their analysis of the size of the CSA in response to Ofwat's challenges, which produces a range of 37bps – 71bps, with a narrower range of 41bps to 71bps excluding the gilts method which is less preferred as an approach, given Ofwat's approach to the "outperformance halo" for WASCs and its relationship with IBOXX. If we focus on the spread to the relevant IBOXX index, then this suggests a 41-45bps embedded debt CSA. The WOC spread to IBOXX of 33-34bps also reflects a suitable estimate for a new debt CSA. We adopted 40bps embedded and 30bps new debt, with an 80:20 weighting (as per Ofwat DD) to our own total assumption of 38bps.

The range that Ofwat quotes of 25-40bps should have increased, at least because of Ofwat increasing the assumption of WASC outperformance on embedded debt below IBOXX indices to 25bps up to February 2019 compared to the 15bps in December 2017.

Developer services – the proposed correction mechanism should be split between direct services to developers and to SLPs/NAVs. We set out our proposals in BW02.

12 Bristol Water Board – Assurance on draft determination Response

All decisions and our proposals in response to Ofwat's PR19 draft determination have been made by the full Board. We have considered carefully both the challenges and the evidence, as well as the significant progress made by Bristol Water since September 2018 when the business plan was submitted.

The full Board provides comprehensive assurance that demonstrates that Bristol Water will deliver, and that the Board will continue to monitor the delivery of, our outcomes. We have confidence that these outcomes will more than meet the relevant statutory requirements and licence obligations and also take into account the UK Government's strategic policy statement.

We have pledged many service improvements in our plan, improving customer satisfaction, reducing leakage and supply interruptions as well as improving the habitat around rivers and reservoirs to name just a few. We have a transformation programme in place that is organised and undertaking investment so that many of the efficiency and service improvements are in a position to be delivered as soon as practicable. We will monitor, report on and appropriately respond to performance on outcome targets contained in our business plan.

The statements that we made in the Board Assurance statement with our revised plan in April 2019 continue to apply to our response to the draft determination. We have continued to apply the same assurance processes as were applied to our September 2018 and April 2019 plans. We have received assurance, including from PWC on the checks carried out on data tables, that our business plan tables are consistent, accurate and assured, based on the processes that delivered this assurance for the original business plan.

12.1 Governance process

We have taken collective responsibility for assuring the business plan. We set the values and standards, make the strategic decisions, and provide leadership for the long term success of Bristol Water. We believe this is achieved through having the appropriate governance and assurance processes in place and the development and assurance of our business plan has followed a consistent governance structure for close to two years.

As a Board we delegate certain roles and responsibilities to committees and these committees assist us by focussing on specific areas and making recommendations in line with their terms of reference. We formally constituted the PR19 Board Sub-Committee (the Sub-Committee) with terms of reference approved by the Board during November 2016.

The Sub-Committee played a key role in supporting the Board with its responsibility for oversight of the development of the business plan and the revised business plan in response to Ofwat's IAP. The Sub-Committee is chaired by our senior independent non-executive director (Tim Tutton) and also comprised:

- The independent non-executive Chair of our Audit & Risk Assurance Committee (Paul Francis);
- A non-executive director (Paul Malan);
- Our Chief Executive Officer (Mel Karam); and
- Our Chief Financial Officer (Laura Flowerdew).

The Sub-Committee is routinely attended by our Director of Strategy & Regulation supported by wider management as required. Other non-executive directors have an open invitation to attend the Sub-Committee, and this was extensive during the draft determination response period.

The primary function of the Sub-Committee is to ensure that the business plan is governed appropriately, diligently developed and robustly challenged to ensure that it meets the expectations of customers, regulators and stakeholders. In particular, the Sub-Committee, supported by management, has taken steps to ensure that the voice of our customers has been reflected in its agenda. Jim McAuliffe, an independent non-executive director, attended meetings with the Bristol Water Challenge Panel and fulfilled the role of liaison with the Board to ensure that they had sufficient information and contact with the Bristol Water Board to fulfil their independent and valuable scrutiny and challenge role.

The Sub-Committee is not a decision making forum and the Chair of the Sub-Committee is responsible for reporting to, informing and consulting the Board as appropriate to enable it to meet its obligations. The development of the PR19 business plan has been a standing item at Board meetings since the Sub-Committee was constituted, with programme updates provided by the Chair of the Sub-Committee, and specific items provided to Board for approval.

The process we followed for the draft determination response is set out below:

Sub-Committee / (Full Board)	Key Agenda Items
20th June 2019 (Sub-Committee)	Approach and plans for responding to the draft determination
21st June 2019 (Full Board)	Update from responses to Fast Track draft determinations. Approval of approach and plans for responding to the draft determination Update on PR19 reconciliation adjustments submission
4th July 2019 (Full Board call)	Approval of PR19 reconciliation adjustments
24th July 2019 (Sub-Committee)	Review of analysis following receipt of Ofwat's PR19 draft determination. Approach to key workstreams noted.
25th July 2019 (Full Board)	Review of analysis of PR19 draft determination. Approach to key workstreams noted
1st August 2019 (Sub-Committee update call)	Update on key topics, including efficiency, cost of capital and financial resilience
7th August 2019 (Sub-Committee update call)	Update on outcome incentives. Indicative decision for recommendation on the cost of capital

14th August 2019 (Sub-Committee update call)	Update on financial resilience. Indicative decision for recommendation on outcome incentive design, cost and efficiency
22nd August 2019 (Full Board)	Detailed scrutiny of response to draft determination. Supporting reports from KPMG, NERA, ICS Consulting and Economic Insight received. Social Tariff, ODI additional customer research and customer forum reports received. Peaches Golding (BWCP Chair) attended the discussion and provided the Board with an update. Approval of Systems based resilience action plan.
28th August 2019 (Full Board call)	Approval of response to Ofwat's PR19 draft determination.

12.2 Financial Resilience

Statement:

We consider that our plan is financeable on both the notional and actual basis and that the plan updated for our response to the draft determination protects customers' interests in both the short and the long term.

Actions taken:

- We have reviewed and critically appraised the options for a company specific adjustment relating to the cost of capital including reviewing all of the independent advice and the customer acceptability and on that basis regard the option selected as both required and justified. We have reviewed the evidence presented by Ofwat on the cost of capital and analysis prepared for Bristol Water on these topics and have approved our response to the draft determination based on this analysis.
- We have obtained an independent view of our methodology for determining financeability and are satisfied it is appropriate.
- We have had the financeability of the draft determination response presented to us, both on a notional and actual basis, including stress testing through scenario analysis, and have been able to challenge the key assumptions that our financeable plan is based upon.
- We have consulted with customers in relation to financing of investment, including views on intergenerational responsibility for investment, and have reflected these views in arriving at appropriate PAYG / IRE / CPIH adjustment rates from a range of scenarios which have been incorporated in the plan.
- We have critically appraised the approach taken with the long term viability assessment in our annual performance report and the business plan.
- We have considered long term outcome targets and potential resilience related investment requirements to assess total expenditure profiles over the longer term and have not identified step changes in expenditure levels over AMP7 and AMP8 in the short term, and at a higher level over the period of the WRMP, which would be required to deliver service levels and which

could give rise to material changes in bill levels, including their acceptance and affordability (our interpretation of protecting customers in the long run).

- We have undertaken stress testing of our response to the draft determination using Ofwat's required scenarios (along with Board's own scenario and stress testing as per our annual Long Term Viability Statement assessment) and considered RORE analysis in relation to penalties and returns, and have also incorporated mitigation measures to meet customer preference for reduced volatility in bill pricing from year to year, as well as giving increased assurance of financial viability.
- We have considered Ofwat's requirement to consider alongside these scenarios based on our response to the draft determination, alternative scenarios within our financial viability testing based on the cost of capital in the draft determination (without company specific cost of capital adjustment) and the lower possible cost of capital for the final determination that Ofwat indicates.
- We have considered carefully the strength of our case for a company specific adjustment (CSA) to the cost of debt and equity, alongside the alternative cost of capital scenarios described above. We have considered our financial resilience for revenue controls based on these alternate cost of capitals.

Bristol Water currently holds a Baa1 negative outlook investment grade credit rating with Moody's. The Company's investment grade strategy underpins the current financing structure. Our assessment of a Baa2 rating based on our response to the draft determination supports the ability to raise new debt or equity in the future. Our key strategic planning risks remain as set out in the Long Term Viability Statement within our 2018/19 Annual report and financial statements.

Based on our response to the draft determination, and based on the stress testing set out within our response to the draft determination, the Directors confirm they have a reasonable expectation that the Company will be able to continue in operation and meet its liabilities as they fall due over the period ending March 2030.

Should the outcome of PR19 vary from the assumptions set out in our response to the draft determination, this reflects one of the strategic risks set out in our Long Term Viability Statement and tested for financial resilience in our response. For all the strategic risks, mitigating actions available to the Company include restricting dividend payments, financial restructuring and the timing of discretionary operating expenditure and/or pro-active capital expenditure. We present the alternative of additional equity for more extreme scenarios, although as gearing remains below 70% this is unlikely to be necessary within the range of outcomes tested. These actions will be sufficient, as a minimum, to maintain the requirements of licence and legal requirements.

Taking into account the strategic risks, the Directors of Bristol Water will continue to ensure that it meets the requirements of condition I13 of our Instrument of Appointment:

"shall at all times act in the manner best calculated to ensure that it has adequate
I13.1 financial resources and facilities; and
I13.2 management resources
to enable it to carry out of Regulated Activities (including the investment programme necessary to fulfil its obligations under the Appointment(s))."

The Board commits to continue to undertake suitably robust stress tests to support our Long Term Viability Statements and to report on the outcome.

Approved by the Board and signed on its behalf on 28 August 2019

M Karam Chief Executive Officer

L Flowerdew Chief Financial Officer

13 Dividend and Executive Pay policies

In response to Ofwat draft determination, we have set out in the following sections how our Dividend Policy and our Executive Performance Related Pay Policy addresses Ofwat's specific comments. The updates to these policies were approved at a Bristol Water Board meeting on 22 August 2019. On both Dividend Policy and Executive Pay, the Board will continue to evolve our policy as business needs and circumstances change, but will always provide transparency through our annual reporting.

13.1 Our Dividend Policy:

Ofwat comment:

"… insufficient detail has been provided on which obligations or commitments to customers will be considered, and how they will affect dividend payments. We expect the company to be transparent in this area, to demonstrate that in paying or declaring dividends it has taken account of the factors we set out in our position statement and we expect the company to be clear about how it will take account of the particular risks to its long term financial resilience as set out below. We also expect the company to demonstrate that its dividend policy takes account of performance in delivery against the final determination along with wider obligations. We expect the company to respond to these issues in its response to our draft determination."

"In the context of Bristol Water ***we do not accept that treating preference shares as equity for the purposes of the calculation is in the customer interest*** *as it is unlikely interest payments on preference shares could be reduced to reflect, for example, circumstances related to poor performance or to maintain financial resilience which would be consistent with the expectations we set out in our 'Putting the sector in balance: position statement'.*

Our response:

Our response is substantially unchanged from the text in Section 10.2 of our Business Plan. We found that our Dividend Policy was in-line or better than best practice in most areas. The only additional factor we are proposing for making dividend payment decisions is in consideration of the general obligation of the company to adhere to regulatory and legal requirements. This was identified as best practice from Affinity Water's Business Plan. We have however presented our response in a more structured decision-making process with a table of factors which will be considered by the Board when making decisions on dividend payments (Table below) and a flow diagram describing the decision process steps more clearly (Figure below). On treatment of preference shares, we believe treatment of preference shares as equity is correct in the context of assessment of gearing, and is consistent with such treatment in other parts of Ofwat methodology, including regulatory assessment of returns. Although Ofwat did not link the two factors within the IAP or sector balance documents, as we note the comments in the draft determination suggest that Ofwat does see a link. Therefore by setting this out as part of our dividend policy, we believe Ofwat can accept our proposal to exclude preference shares from the calculation of gearing for the gearing benefits sharing mechanism.

Table 7 - Factors affecting Dividend payments

Factor	Specific elements considered in dividend decision	How will the factor impact dividends	Reference
Customer commitments	Performance against: • ODIs (including Leakage, Water Quality, etc.) • C-Mex • Communities outcomes • Totex	• We will pay a level of ordinary dividends that reflect efficiency, management of economic risk and delivery of performance commitments to customers, comprising of an annual level reflecting the dividend yield of 3.4%, with 0.9% p.a. real growth assumed in our business plan (Note 1). • We will adjust dividend payments to reflect the actual outcomes and expenditure performance, for the full range of ODIs over the period, with reference to the commitments in our business plan. • 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 our customers and communities. • We will publish details of how we have applied our dividend policy in our Annual Performance Reports and in our publication "Trust Beyond Water". This will include any changes to the dividend policy and its application.	• Bristol Water plc Dividend Policy • Business Plan Chapter 10.2 • Board Assurance Statement
Actual vs nominal capital structure	• Financial ratios under actual capital structure • Investment grade credit rating	• 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.	• Bristol Water plc Dividend Policy • Business Plan Chapter 10.2 • Board Assurance Statement
Regulatory metrics and sharing factors	• Actual gearing	• If gearing increases above 70%, we will share the benefits with customers (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	• Bristol Water plc Dividend Policy • Business Plan Chapter 10.2 • Board Assurance

		our annual report how this is consistent with financial viability over the future period. • We will adjust dividend payments to reflect the impact of any changes in gearing to maintain the level of equity return stated in our business plan (4.3%).	Statement
General obligations	Company compliance with regulatory (licence), and legal (environmental and health and safety regulations)	We will consider dividend payments to be capped at base level if the company is prosecuted/equivalent formal enforcement action and found in material breach of regulations where there are national reputational implications.	New proposal
Employee interests	Pension deficit/surplus	Dividend payments do not adversely impact employees, given there are no pension schemes that require future deficit contributions.	• Business Plan Chapter 10.2

Note 1: Excludes annual dividends paid on irredeemable preference shares which are considered debt on the balance sheet, and are shown within financing costs rather than dividends. Also excludes 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. Excludes preference shares and debentures.

Note 2: References to our business plan will, where relevant, refer to our plan update to reflect the outcome of PR19.

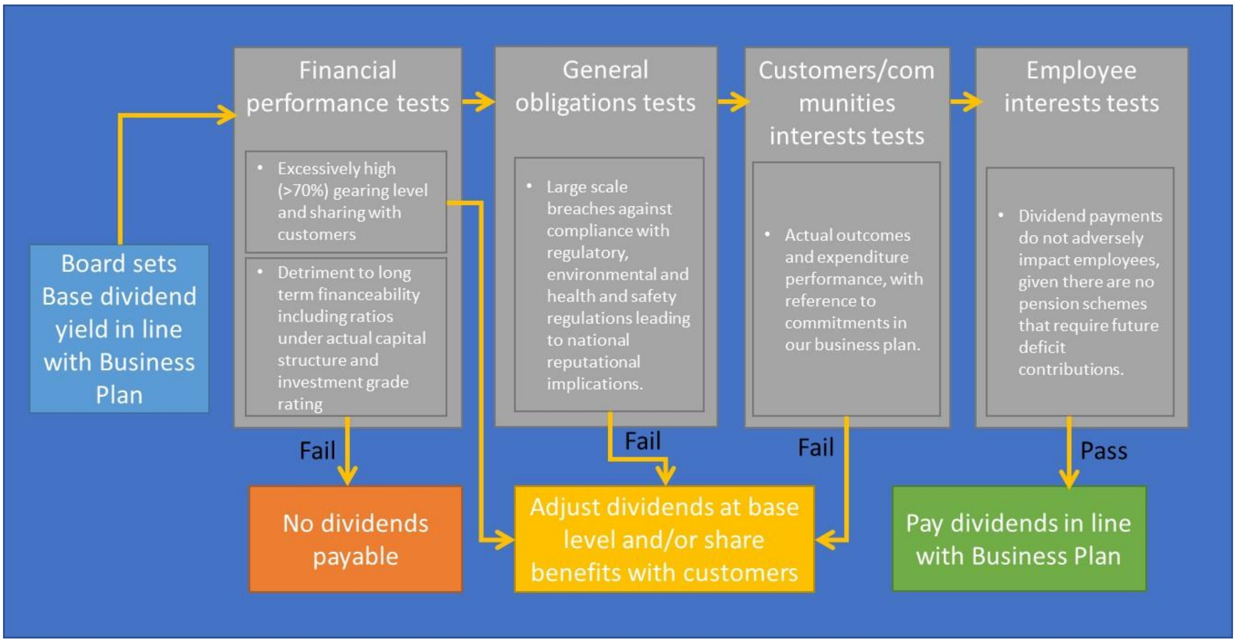

Figure 15: Decision making process used by the Board of the company for dividend payments

Where the green box is reached, and net outperformance on regulatory incentives (totex and outcomes) is sustained, then out-performance dividends can also be paid. The Board will consider forecast performance over the remainder of the period in this forecast in considering what performance is sustained. There is no obligation on the Board in these circumstances to pay an outperformance dividend.

13.2 Our Performance Related Executive Pay Policy:

Ofwat comment:

"We expect Bristol Water to provide an update on this in response to its draft determination. We expect Bristol Water to demonstrate that its policy on performance related executive pay demonstrates a substantial link to stretching performance delivery for customers through 2020-25. We expect the company and its remuneration committee to ensure executives have stretching targets linked to performance delivery for customers and that any further updates to the policy for 2020-25 are transparently reported to stakeholders in its Annual Performance Report."

Our response:

Our response is substantially unchanged from the text in Section 10.2 of our Business Plan. We found that our Executive Pay Policy was in-line or better than best practice in most areas. We are however providing extracts from the company Annual Report 2018/19 in Table 2 below demonstrating the structures of the Annual Cash Incentive Plan (ACIP) to demonstrate the strong links between performance and pay. We are also providing extracts from the July 2019 Remuneration Committee paper on LTIP (Table 3) for AMP7 to demonstrate the continuing commitment to this strong relationship.

Table 2: Details 2018/19 Annual Cash Incentive Plan (ACIP) from Annual Report 2018/19

Policy and link to strategy	Performance areas and Link to customer interests	Changes proposed for AMP7
To drive and reward performance against personal objectives and selected financial and operational KPIs which are linked directly with business strategy and customer outcomes - Ofwat's measures of success. • 80% based on objectives which are either direct customer measures, customer delivery measures, or customer centric measure of efficiency • 20% on achieving customer centric, role specific strategic personal objective for the Executive Director	Business objectives include: • Direct customer service measure, SIM (15%) • Operational targets identified by customers as priorities such as water quality, leakage interruptions to supply (15%) • Customer centric measures of safety, and efficiency (30%) • Business Plan quality (20%) Personal factor at the discretion of the Board, having regard to the recommendation of the Remuneration Committee, including organisation change and transformation to ensure delivery of AMP7 for customers, and management team development.	None.
Stretching objectives	On-target performance only achieves 80% of ACIP. Stretching targets based on comparative industry position, or upper quartile performance, are set for payment of 100% of ACIP.	None

Gateway and Underpin	Any employee or contractor fatality will result in no payment under the Safety measure.	None
Malus and Clawback provisions	Remuneration Committee reviews the application on Malus and clawback provisions on the anniversary of the ACIP payment	None
Transparency and reporting	Full details of the performance measures, any payments and how they are assessed are included in Annual Reports.	None

Table 3: Proposed AMP7 Executive Long-Term Incentive Plan (LTIP) from Remuneration Committee paper July 2019

Policy and link to strategy	Performance areas and Link to customer interests
The objectives of the LTIP are: • to incentive long-term delivery of safe, excellent quality water, outstanding customer service and achievement of financial objectives; and • to align CEO and CFO long-term interests with those of customers, long-term shareholders and other stakeholders.	Proposed business objectives include: • Totex Performance Measure (20%) • Return on Regulated Equity (10%) • ODI Performance Measures (Leakage, Metering, Water quality contacts, Supply Interruptions, CRI) (25%) • C-MeX (10%) • Company Monitoring Framework [or equivalent] (10%) • PR24 Preparedness (Business planning capability, Transformation outcomes) (10%) • Resilience in the round (Asset health, Resilience Project, Biodiversity Index) (15%)
Stretching objectives	For ODIs that feature in the business plan, the committed performance level is set at 80% for LTIP Stretching targets based on comparative industry position, upper quartile performance, or outperformance caps, are set for payment of 100% LTIP.
Gateway and Underpin	Any employee or contractor fatality will result in no payment under the Safety measure (relevant element of Resilience in the round and transformation outcomes).
Malus and Clawback provisions	50% of any payments due under LTIP are withheld for one year. Remuneration Committee reviews the application on Malus and clawback provisions.
Transparency and reporting	Full details of the performance measures, any payments and how they are assessed are included in Annual Reports. We do not incentivise payment of dividends. 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." and why the weightings are expectations, which could be varied by the Remuneration Committee to ensure the principles are retained. Our policy states: "We adopt the expectations on performance related

	pay Ofwat sets 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."

14 Ofwat policy documents – our comments

One theme we have identified with the draft determination is that it is a thorough, but often inconsistent, assessment of individual actions, response points and interventions. By reviewing all of Ofwat's policy documents, we document below why we need to respond to the draft determination based on the individual comments and justifications that Ofwat provides. This is a reminder that we support the PR19 methodology and believe it should be fit for purpose, and that we have responded positively with detailed and assured information to assist Ofwat's process. We document this to highlight why we respond extensively on particular points of detail, that will often appear in isolation to be minor and company specific.

Ofwat document	Ofwat comment	Our response
Aligning risk and return technical appendix, page 4	We have not accepted the adjustments proposed by Bristol Water and SES Water because we are not convinced there are there are benefits that adequately compensate customers for the increased cost of the uplift.	We provide extensive evidence that demonstrates that this benefit exists. Ofwat's methodology continues to focus on benefits to Ofwat's regulation, rather than directly to customers. As well as following this approach, we demonstrate that there is an intrinsic value to local companies that it is reasonable for Ofwat to take into account. Ofwat continues to take an "all or nothing" approach, which is inconsistent with good regulation and Ofwat's duties in consider adequate returns for efficient financing.
Aligning risk and return technical appendix, page 6 Page 89	All companies have proposed to adopt a gearing outperformance mechanism, though Thames Water, South Staffs Water and Bristol Water propose amendments to our default mechanism. Bristol Water proposes its gearing calculation should exclude £12.5 million of preference shares, as it considers these specific historical financing arrangements can be considered an element of equity, rather than debt in some circumstances. In the context of Bristol Water we do not accept that treating preference shares as equity for the purposes of the calculation is in the customer interest as it is unlikely interest payments on preference shares could be reduced to reflect, for example,	We disagree with this conclusion, which runs counter to Ofwat's exclusion of preference shares from the industry embedded cost of debt. This is an inconsistency in logic which Ofwat should take into account – Ofwat treats preference shares as equity in financing and then debt within this mechanism without presenting an objective reason. These comments appear to reinvent the purpose of the gearing sharing payment mechanism, which was to not to require lower dividends to keep gearing below a particular level, but to share benefits of higher gearing on financing with customers. Ofwat do not set the cost of debt or equity in a way that considered preference shares, and do not include preference shares in the calculation of debt or equity in the cost of capital Ofwat's explanation for not accepting this adjustment contradicts the argument used in the "sector balance position statement" – this was about sharing the benefits of financing outperformance. "Companies with gearing levels materially above our notional assumption, should propose, in their business plans, outperformance sharing mechanisms that allow customers to share in the returns equity investors achieve from high gearing." and "Gearing outperformance mechanisms proposed by companies in their business plans can differ from the illustrative mechanism if the alternative delivers equivalent benefits for customers in the round." and "Companies with gearing that is currently below the 70% trigger threshold should consider the steps they will take in the event that they carry out a future financial restructuring that increases gearing to levels above threshold." The position statement notes that we strongly supported Ofwat's approach, which was about avoiding increasing gearing, and to provide an incentive with those above 70% to reduce it. As preference shareholders would not benefit from such an increase in gearing, Ofwat's draft determination

Ofwat document	Ofwat comment	Our response
	circumstances related to poor performance or to maintain financial resilience which would be consistent with the expectations we set out in our 'Putting the sector in balance: position statement'.	statement conflates the objectives of the policy statement and the logic we proposed should be maintained – this adjustment delivers equivalent benefit for customers in the round based on this statement. The wider impact is there is no additional risk borne by customers, as the historic £12.5m preference shares is not a risk or opportunity that they currently bear. We do not believe the alternative - for us not to accept the gearing sharing payment mechanism and then for Ofwat to consider adjustments at PR24 should we increase gearing - is a proportionate approach to take. Our voluntary sharing proposal could, for instance, be an objective reason to consider a different approach, but we do not consider this as it complicates what should be a very simple adjustment. As per the regulatory accounts, we make the distinction between the £12.5m irredeemable preference shares (listed on the London stock exchange) and the £1.6m of debentures, which are also traded. It is a matter of change in accounting treatment since the preference shares were issued, and the adjustment for these is shown in the regulatory accounts already. Therefore, we do not accept the default mechanism as Ofwat defines it in the draft determination, as we do not accept that Ofwat's draft determination position is in line with the default mechanism set out in the position statement, and that reasonable adjustments would be made that did not represent a change in risk for customers. We would however welcome further dialogue on this point as the explanation in the draft determination does not match our understanding of the objectives of this mechanism.
Aligning risk and return technical appendix, page 15	In their representations to the fast track determinations, a number of companies raised concerns that RoRE ranges represent an asymmetric skew on expected returns.	Our concerns on this point increased with the draft determination compared to the IAP. We present evidence and our response to the draft determination prevents asymmetric skew on expected returns, supported by evidence.
Aligning risk and return technical appendix, page 22	while we have not accepted the company specific cost of debt adjustment for Bristol Water, we have not assessed there to be a need for us to intervene in the cost of new debt RoRE range for Bristol Water in our draft determination	As we believe our company specific cost of debt adjustment reflects notionally efficient financing for a local water company, it does not affect our RoRE range calculations. This is technically correct, but should be skewed in the Final Determination if the reason for not allowing this is due to the customer benefits test, as strictly that would reflect Ofwat not allowing a notionally efficient cost of debt for a local small water only company.
Aligning risk and return	Bristol Water proposes a notified item	This notified item remains required for the Final Determination. Arbitration arrangements are

Ofwat document	Ofwat comment	Our response
technical appendix, page 25	under Condition B of its licence in respect of possible changes to its costs for abstracting water from the Gloucester and Sharpness Canal which are presently subject to an arbitration process.	currently being made.
Aligning risk and return technical appendix, page 38	Dŵr Cymru, Bristol Water, South East Water and South Staffs Water provide sufficient evidence of the approach taken and/or the calculations to support their chosen RCV run-off rates in their revised business plans and we accept their approach to setting the starting position for RCV run-off rates.	We have not amended our approach to RCV run-off rates for our response to the draft determination.
Aligning risk and return technical appendix, page 49	Each company is responsible for maintaining its own financial resilience over the long term, taking account of its financing and capital structure. For Southern Water, Affinity Water and Bristol Water, we are setting specific actions to set out the steps they are taking to maintain the financeability and financial resilience of the actual company structure.	In our view, Ofwat conflates our stable financial resilience with the impact of the draft determination assumptions. Despite this, we provide assurance that we will continue to take steps to maintain financial resilience as required under our licence – this is no different to the obligations on other companies and we see no particular reason for this specific action. An additional step we are taking is to respond to the draft determination, to highlight the inconsistency in Ofwat's notional financeability assessment, to show very high and positive Bristol Water ratios in the draft determination documents, and yet challenge actual financeability (low gearing and low cost of finance amongst WOCs) when our ratios are similar to others.
Aligning risk and return technical appendix, page 51	In response to a query, Bristol Water confirm that the target credit rating for the notional company is Baa1 (Moody's). The company states that it considers a notionally geared and financed Bristol Water would be	We set this out clearly in our revised plan. However, this sentiment may change based on the draft determination but remains our assumption that Ofwat should target Baa1 using a Moody's ratio. As we demonstrate however, the cost of capital in the draft determination for the industry, alongside other incentives, is insufficient to make this assumption hold. We retain a small new funding requirement, which shows that the challenge on actual financial resilience is misconceived. Whilst targeting Baa2 is acceptable for 2020-25, with a low new debt requirement meaning there is

Ofwat document	Ofwat comment	Our response
	expected to be in line with a strong Baa2 (Moody's) based on current rating agency sentiment, but in the long run would be expected to be Baa1 (Moody's). Bristol Water considers the current sentiment on the regulatory framework to be a short term perspective. The company has a relatively small funding requirement through 2020-25;	not a significant additional cost of financing for Bristol Water (which will affect others in the industry), Ofwat is selective in the evidence they consider. We set out in our cost of capital a report from Economic Insight that demonstrates the impact of this selective use of evidence, and then show how, given our particular financing position, the company specific cost of finance is, in reality, consistent with an overall cost of capital for the industry as a whole. We do not provide specific financial resilience assurance on a lower cost of capital than one we believe is justified for ourselves and the industry as a whole, but we do provide assurance (consistent with our licence obligations and set out in our annual report) that we will continue to fulfil these obligations.
Aligning risk and return technical appendix, page 53	Bristol Water refers to successful refinancing as providing confidence of its financeability at efficient and competitive pricing levels. Bristol Water also refers to the long-dated existing debt and relatively low refinancing requirement as support that it is targeting an appropriate credit rating. It considers that the company will be in a strong and financeable position to raise the low level of debt required of approximately £9 million in the forthcoming period at a Baa2 rating from Moody's. However, we consider there is limited headroom in the projected financial ratios and we expect Bristol Water to provide further Board assurance of the actions the company will take to maintain its financial resilience;	We have already provided this reassurance and provided detailed support and analysis with our original and revised plans. We update our analysis for our draft determination response, and maintain our approach on this basis. We will continue to provide assurance in line with our licence obligations.

Ofwat document	Ofwat comment	Our response
Aligning risk and return technical appendix, page 63	Adjusted cash interest cover ratio is impacted by a company's approach to recovering infrastructure renewal expenditure through PAYG or RCV run-off and its accounting policy for treating these costs as operating and/or capital expenditure. For example, Yorkshire Water and Bristol Water capitalise a part of infrastructure renewal costs in their accounting policies while recovering these costs in period through PAYG rates.	Ofwat continues to assume companies have a wide choice of accounting policy and this is not subject to external scrutiny by auditors. The point however is that all ratings agencies adopt methodologies that allow for comparison across the industry, regardless of accounting policies or similar; as such, the Moodys AICR measure aims to adjust out the impact of RCV run off/PAYG to understand the underlying value of the business. We therefore set out evidence as to why Ofwat should focus on their alternative ratio or Moody's ratios in considering the financeability position of a company.
Delivering outcomes for customers policy appendix p.48	We intervene for Bristol Water as the evidence provided by the company is low quality, and there is no planned improvement in the performance commitment level by 2030 (ie over 10 years). We set the performance commitment level at the forecast 2019-20 level for the first four years of the period, reducing to zero in 2024-25.	We disagree that the evidence was low quality. The guidance changed late in the process and we tested this specifically with independent technical assurers (Jacobs) because of this uncertainty. We expect that the interpretation of other companies as to their target levels (e.g. zero) does not reflect the guidance, as it is counter-intuitive given our water resource position.
Delivering outcomes for customers policy appendix p.51	All companies state they accept the data checking element of our proposed performance commitment. However, four companies (Thames Water, South Staffs Water, Bristol Water and Dŵr Cymru) argue for a different interpretation of 'proactive interaction' than we set out at IAP.	We accept Ofwat's draft determination approach, and welcome the consideration of our response point.
Delivering outcomes for customers policy appendix p.51	Some companies challenge the premise that ODI rates would be expected to converge and express a	We disagree that it is for companies to prove this point, when Ofwat presents no quantification or logic in return. We present further evidence that shows why the range does and should exist. We had presented ample evidence that demonstrated that trust in a local company affected their view of the

Ofwat document	Ofwat comment	Our response
	concern that the approach to defining the IAP reasonable range was arbitrary. Similarly, many companies (Anglian Water, Bristol Water, SES Water, South East Water, Wessex Water, Yorkshire Water) respond that the evidence on which their rates are based is robust and the best basis for setting ODI rates as it is more likely to be reflective of the views of their own customers. Some companies (Bristol Water, Portsmouth Water, SES Water) offer reasons why their ODI rates might be higher/lower compared to the industry average (including differences in average bill size, average income of customers, existing performance levels and marginal cost) but do so without providing supporting evidence to demonstrate or quantify the effect.	need for investment (and therefore WTP), due to trust, reputation in response to the rare levels of failures (e.g. supply interruptions) that occur, and preferences for stable bills rather than potentially baking in additional cost for the future. The NERA triangulation review and the research that tested company views has been presented and confirmed through additional revised plan research. We are not convinced Ofwat considers this, as it covers the whole (as WTP should), rather than each individual outcome in isolation. We present evidence from past industry studies which demonstrate why WTP should not converge, and precisely that it had converged at PR14, but Ofwat's PR19 methodology reduced the degree of consistency based on what companies were asked to do under customer engagement (i.e. triangulation rather than convergence through reliance on stated preference surveys). As Ofwat's draft determination showed, the interventions now made are inconsistent with the PR19 objectives that Ofwat sets out for company research. Bristol Water (uniquely as far as we can tell) recognised this issue with the triangulation through draft business plan research that NERA validate as being leading practice.
Delivering outcomes for customers policy appendix p.96	In some cases companies proposed ODI rates that were not properly based on customer evidence. For example Bristol Water uses customer willingness to pay evidence to improve supply interruptions without taking into proper account how the investment would improve service and so overestimated the benefits of the investment.	This paragraph does not reflect any actions we had and does not make sense to us in the context of supply interruptions. The Willingness to Pay includes the impact of investment for improving service, as can be seen in our triangulation. We assume this comment may relate to our resilience scheme, where Ofwat continues to believe it links to supply interruptions. We disagree, and presented evidence of the lack of link, and resilience investment does not specifically affect customer WTP or ODI rates for supply interruptions, which is base service and operational improvement driven. We present evidence that demonstrates that we showed a wide range of interruptions and have calculated the net impact in our supply interruptions ODI rate. We do not use WTP for the resilience schemes, as we can as an alternative use a cost based approach – we compromise to make it clear to Ofwat that we are happy to consider this alternative output, rather than outcome, as it does not benefit supply interruptions within P10 levels of performance.

Ofwat document	Ofwat comment	Our response
Delivering outcomes for customers policy appendix p.100	We intervene on performance commitments which relate to investment proposals for schemes that have been rejected or are no longer material post-adjustment. This involves either removing performance commitments where there was no customer benefit from keeping it or making the performance commitment non-financial (for example, Bristol Water's Population at risk of asset failure).	There is no logic in making this performance commitment non-financial, as it links to customers' views that all population centres should benefit from financial resilience investment beyond normal supply interruption service levels, and this should be over a ten year programme which should be delivered earlier if it is beneficial. As Ofwat intervenes and remove the investment, this form of incentive should be removed. There is no benefit to customers of keeping a non-financial commitment without the investment promised to customers for their community. Instead, we provide evidence on the investment as distinct resilience measures and propose a penalty only ODI as part of what Ofwat terms "Glastonbury Street". The logic of only focussing resilience on large improvements rather than all individually identified (cheaper and local) options contradicts Ofwat's PR19 methodology on long-term resilience, and a systems based resilience approach.
Delivering outcomes for customers policy appendix p.127	In their September 2018 business plans, four companies (Bristol Water, Northumbrian Water, Southern Water and South West Water) stated they can improve their performance on mains repairs whilst also reducing leakage. Both South West Water and Bristol Water also state they will reduce mains repairs and leakage, but do not provide detail of how this will be achieved.	In our view, Ofwat conflates five year delivery plans that have been optimised, with long term industry investments in mains. We included investment cases that were very specific of how mains repairs would be reduced (it is the benefit of the investment programme targeted at improving leakage, whilst maintaining the base maintenance in mains replacement and refurbishment necessary for the long term at 20km mains per annum). We present extensive evidence on these relationships for Bristol Water, and the industry as a whole, within our response as this optimisation does not support a lower mains burst target that would not be efficient to deliver. We included evidence on our Network Optimisation, PODDS, network monitoring, Calm DMA innovations in multiple places within our business plan. Therefore it is unreasonable for Ofwat to make this statement that we do not provide detail on how mains repairs and leakage reduction will be achieved, when this was fundamental to our business plan, our revised network contract and all of the elements of our plan **as a whole**, rather than what appears to be selective interpretation to justify top down interventions based on very high level statistical analysis. We already have smart transient technology and have presented evidence on this, our plan reduces both leakage and mains repair levels, without major enhancement spend, reflecting an optimised programme, in part because of wider disbenefits such as traffic congestion. In the IAP there were similar comments on preferences for "hard solutions" compared to catchment

Ofwat document	Ofwat comment	Our response
		management which did not reflect our plan, and is not a concern in the draft determination as we could clearly demonstrate specific schemes and approaches that contradicted this. We take a similar view now with the draft determination that a query could be asked by Ofwat which would allow us to reference the extensive evidence and analysis we do have, and have already provided. Networks are different and even if the same solutions are provided, the outcome may be different. That is why customer priorities (supply interruptions and leakage) should be accompanied by serviceability led asset health indicators (mains bursts). Leading indicators (used to monitor pressure, transience, water quality and discolouration) also contribute. We clearly recognised that a minimum level of mains replacements and refurbishment over time was required and produced modelling on this (including in the network age and materials cost adjustment claim which is not required in the final IAP or draft determination models, which we included as evidence for this purpose). If Ofwat do want more reassurance than outcome incentives (and companies carry the risk of Ofwat intervention if they exceed ODI thresholds of poor performance in any case), then we would suggest an industry standard mains replacement output could be considered, although it would not be in line with a totex/outcomes framework. The 20km average p.a. (0.3%) we produced evidence for and used as a long-term constraint in our investment plan is the example of a commitment we are willing to make should the regulatory framework wish to put Ofwat's logic in this section into practice, rather than thorough proxies through outcome interventions and searching for national relationships when none may exist.
Accounting for past delivery technical appendix, page 25	Bristol Water demonstrates good practice in providing bespoke action plans for each performance commitment (with the exception of mains repairs).	We included our mains bursts improvement within the other bespoke action plans – because that is how it is planned. The whole appendix to C7 on transformation described this approach, including the new contracting arrangements, the leakage arrangements, how metering would be delivered alongside these mains replacements. This makes it clear the driver is discolouration as well as the specific actions Ofwat request. We would point out that Ofwat did not indicate such an action was required, in terms of describing mains bursts delivery separately to these other descriptions. The policy document itself suggests that this is the approach companies should take. We provided the general reference in the action tracker. We provided further information in our Annual Performance Report demonstrating that short term performance in 2016/17 and 2017/18 on mains bursts was weather related and stable performance based on 2018/19 and early 2019/20 can be demonstrated. This is different from 2020 and beyond given the change in holistic delivery in the bespoke action plans. We believe Ofwat should recognise that this information was provided.
Accounting for past	**Leakage performance commitment**	This contradicts the statement made on the previous page. Ofwat provides no justification.

Ofwat document	Ofwat comment	Our response
delivery technical appendix, page 26	The company provides insufficient evidence to support the deliverability of the stretch in its 2020-25 business plan. We therefore consider it necessary to intervene to protect customers.	
Accounting for past delivery technical appendix, page 26	**Mains repairs performance commitment** The company does not provide additional deliverability evidence or an action plan for continuous improvement for mains repairs. We therefore consider it necessary to intervene to protect customers.	See above – the information was not requested, but it was included within our section C7 appendix. As before, therefore there is no justification for the intervention. We would note there are no obvious examples in the draft determination of any evidence which avoided a standard intervention.
Accounting for past delivery technical appendix, page 26	**Meter penetration performance commitment** The company provides insufficient evidence to support the deliverability of the stretch in its 2020-25 business plan. We therefore consider it necessary to intervene to protect customers. We are intervening to protect customers by increasing the company's outcome delivery incentive underperformance rate for meter penetration to its PR14 outcome delivery incentive rate as we consider that a stronger incentive is required for the company to achieve the level of stretch in the 2020-25 business plan.	This contradicts the delivery plan comments. The outcome incentive rate from PR14 is not relevant as a response to the concern, the WTP was criticised by Ofwat at the time as over-estimating customer support, and is not relevant as the metric is customer demand and housing market, rather than company delivery performance (i.e. there is no customer impact from non-delivery specifically).
Accounting for past delivery technical appendix, page 26	**Customer complaints handling** The company provides insufficient evidence to support the delivery of its	The short term operational issues have been resolved, and performance has improved. CCWater are no longer monitoring written complaints or complaints handling at Bristol Water, and wider customer satisfaction measures for CCWater monitoring are industry leading in many aspects. We propose a

Ofwat document	Ofwat comment	Our response
	targets for 2020-25.	reputational ODI based on the discussions that Ofwat asked for, where we provided in an early document to allow for additional time for Ofwat to consider.
Cost of capital technical appendix A1	Though we did not accept the validity of the 55bp uplift to embedded debt in our January assessment, Bristol Water retains the assumption, citing analysis carried out by KPMG which Bristol Water claimed produced a range of appropriate notional uplift from 39 to 60bps on the cost of embedded debt.	We deal with the references to our company specific adjustment to the cost of capital in the relevant section of our response. We recognise that Ofwat considered our previous IAP response, and make further representations, particularly where we identify further adjustments to the analysis as information is revealed from the draft determination. Ofwat however mischaracterise our approach. We proposed an overall uplift of 38bps. To focus on the embedded debt only, or to describe this as 44bps based on an Ofwat change in embedded debt assumptions, and then to reject the whole value as being outside of a 25 – 40 bps range is not reasonable.
Securing cost and efficiency technical appendix page 27	We recognise that the Competition and Markets Authority (CMA) did not apply an upper quartile catch-up efficiency challenge in Bristol Water's PR14 price determination but instead used an average-efficiency benchmark to which real price effects and productivity improvements were applied. However, the total net efficiency challenge applied (productivity improvements minus real price effects) was arguably more challenging than Ofwat's upper quartile approach.	We agree with this reference and the conclusion that the CMA net efficiency challenge was arguably greater than Ofwat's PR14 upper quartile approach, although this only applies at totex and not botex level which is relevant to PR19. This therefore does not support Ofwat's PR19 approach. The use of upper quartile at PR14 was in the context of water **totex** rather than botex (or botex plus growth) modelling. The CMA use of average-efficiency was in the context of rejecting the use of the totex models for the Bristol Water PR14 price determination, and used average efficiency in that context. The other regulators quoted in this section used upper-quartile **totex** efficiency. Ofwat at PR19 use upper-quartile for base efficiency, without considering whether there are offsetting efficiencies in enhancement. We disagree therefore that there is evidence to support Ofwat's use of upper quartile catch-up on base efficiency given the PR19 modelling, from these references which do not describe the context. Instead, if the reference is valid it supports using average efficiency for botex modelling separately from individual enhancement cost assessments. The reference similarly does not support this enhancement cost being based on a catch up efficiency from base modelling where Ofwat makes no assessment of enhancement cost (e.g. shallow dive efficiencies at PR19, the developer services modelling approach, or the negative implicit allowance for enhancement opex). Neither does it support a totex/outcomes 0.5% p.a. efficiency frontier being applied.
Securing cost and efficiency technical appendix page 95	In the light of latest data submitted by companies we no longer consider that such an upfront payment is appropriate. So far in the 2015-18 period companies have outperformed our efficient cost baselines by an average of 4%. This is even for some companies such as Bristol Water,	We believe that there is an argument on scope as Ofwat has put forward, but we do not believe this is material enough for the overall conclusion to be considered robust. As noted above, the CMA review removed scope from the Bristol Water determination. They also assumed a 50% cost sharing rate, which is different from Ofwat's PR19 draft determination stated approach. The presence of outperformance (which Ofwat use separately to argue for the 0.5%p.a. outcomes frontier efficiency) also is not considered – Ofwat did not assume a frontier shift at all at PR14. Therefore, for Ofwat to move away from the PR19 methodology on the basis of this analysis,

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	whose PR14 business plan costs were far higher than their final determination as determined by the Competition and Markets Authority (CMA). Some of this reduction in costs reflects improved efficiency and some of it reductions in scope from schemes that we did not fund in company business plans. We therefore consider that our efficient cost baseline rather than company business plans are likely to be a better guide to the outturn performance of a company. We therefore no longer consider that an upfront payment is required and have not included one in slow track draft determinations. This does not affect the overall cost sharing incentive – only the timing of this reconciliation.	without considering the other PR19 assumptions, on the basis scope and efficiency potential is unjustified on this basis. Given the changes in the efficiency model, and that the developer services expenditure does not appear to have a robust rationale (given that Ofwat has confirmed that the numbers in the draft determination are incorrect and the methodology has subsequently changed), there is sufficient uncertainty about efficiency for Ofwat to maintain the financial resilience through not ascribing precision to their outputs. The timing of this difference is not sufficient justification without this needing to be considered within the cost of capital.
Bristol Water draft determination p.8	In the 'Putting the sector in balance' position statement, we also encouraged companies to adopt voluntary sharing mechanisms, particularly where, for example, companies outperform our cost of debt assumptions. Bristol Water has not proposed any voluntary sharing mechanisms, apart from a mechanism which would share up to 100% of any company-specific adjustment it is awarded, if it does not achieve its performance targets in customer and stakeholder satisfaction surveys.	We requested correction of this mischaracterisation of our approach at the IAP stage, as well as prior to the draft determination. Our voluntary sharing is **not** and never has been dependent on the Ofwat acceptance or otherwise of the company-specific adjustment to the cost of debt. It is **linked** to the value, because that addresses customers priorities for legitimacy (the research we did with Accent in Summer 2018 referred to above highlighting the desire for a social contract rather than nationalisation of local water companies and similar utilities such as Bristol Water) , including dividends and executive pay, because the mechanism connected the Board to current customers, employees and future customers. This transparency and connection of financing responsibilities to service has been included in our corporate governance statement (see 2018/19 accounts), and reflects our commitment to the "sector balance" initiative, as well as reflecting Bristol Waters' social purpose. This was central to our plan, and we believe Ofwat should recognise this in the elements of executive and dividend pay policies. The contribution to the systems thinking action plan because of the link to resilience is also something we wish to make clear. The link to our views on other aspects of Ofwat's potential interventions such as PCC targets should also be noted and reflect our strategy.

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		When Ofwat intervenes in the price control (e.g. dismissing the importance of a "zero water poverty" metric that has local stakeholder support), this leaves open the question from the Accent research that customers can feel the same way about local public services that are connected to a community in the same way about effective service providers (e.g. Amazon, supermarkets, John Lewis) where they see choice – it makes sense to customers in the same way. We would contend it is not Ofwat's role to determine that services should be nationally, rather than locally determined, without considering the research we continue to present that suggest this is not what they want. Our voluntary sharing mechanism should be seen as the ambitious commitment we make to ensure that local public services in Bristol (and arguably not just water) have the same support as the most effective market services that customers perceive. That was the intention of our strategy.
Bristol Water draft determination p.10	This online-only research is of a satisfactory quality, with the customer challenge group providing positive assurance, but we note that the results do not support all of the company's proposals, for example, on deadbands.	This is not the only research that was relevant. The online research supported deadbands, as did the related focus groups which tested each individual ODI design in more detail. We have carried out further research to illustrate these two points together (online and with our customer forum), with the Bristol Water Challenge Panel's involvement. This research was carried out and submitted in the IAP response. The Challenge Panel's conclusion and the views that the ODI designs and service levels reflect customers' priorities and views should not be neglected. Ofwat also do not reference the further evidence on triangulation, which continues to be mischaracterised from the IAP despite our further independent review that it reflects innovative best practice. Where Ofwat challenge our unit rate calculations for ODIs, we received some additional information that was more specific through the draft determination query process. However, every unit rate that we queried in the draft determination questions Ofwat confirmed was wrong, and often by material amounts. We asked for a full calculation audit trail but none has been provided. These minor criticisms (which were not balances of judgement and are not well founded) should be compared to the lack of transparency and inaccuracy in the wide range of draft determination interventions. Without further transparency before final determinations, it is clearly unsafe to rely on these calculations, or Ofwat's assurance approach. Where the calculation approach (e.g. leakage) has been provided following our queries, we have not been able to replicate the revised number provided. We set out in our response our calculations using Ofwat's approach (sometimes it is higher than the number provided), but any criticism of our calculations should reflect the extensive assurance provided by ICS, the self-reporting of one minor calculation error we identified at IAP stage, and the extensive and consistent evidence

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		through the calculation approach we provided (full spreadsheets with detailed WTP estimates, triangulation and marginal benefit calculations for different investment scenarios).
Bristol Water draft determination p.22	Bristol Water did not propose any costs to comply with the Traffic Management Act in its September 2018 business plan but does in its April 2019 business plan. The company bases the costs on the forecast introduction of permit schemes in its area. The timing of the introduction of permit schemes has not been confirmed by the relevant highways authorities and the company does not provide sufficient evidence to explain its forecast number of permits. Due to this uncertainty we do not make an allowance for Traffic Management Act costs in our draft determinations.	The uncertainty is minor and exists in other company areas where Ofwat has made an allowance. We provided updates that demonstrate that schemes will be introduced, and propose a totex allowance adjustment should this not be the case. At the time of the September 2018 business plan the Government had not given the councils an April 2020 deadline to implement these schemes.
Bristol Water draft determination p.22	The company does not demonstrate its current cost of water is atypical and uniquely high. The payment represents the most efficient source of supply for many of Bristol Water's customers, and there are economies of scale from obtaining 45% of supply from a single source. We consider our modelled allowance, which includes industry costs for sourcing water is sufficient for the current Canal & River Trust costs.	If this statement was the case, then there would not be an efficiency gap for Bristol Water based on base water resource costs. This implies totex efficiency (which would be the case for reservoirs and water sources over an assessment over the very long life of the asset), not based on the PR19 efficiency assessment approach. The Ofwat efficiency models also suggest constant returns to scale, so if this statement is true that there were economies of scale, then the Ofwat PR19 efficiency models must be incorrect. We therefore contend that Ofwat's initial assessment was correct, and we present compelling further evidence, including a calculation of an immaterial implicit cost allowance that assumes there are 20 times the number of similar circumstances in the industry than the one other we have been able to identify.
Bristol Water draft determination p.23	However, the most material area of enhancement cost challenge for Bristol Water is in leakage. For leakage our expectation for base	We applied Ofwat's methodology in our IAP response. Ofwat then treats this as our unit costs, and reduced the allowance further. We present evidence that this methodology did not work as it allowed the lower of industry average and our unit costs, but did not include our unit costs.

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	service levels is that an efficient company should achieve industry forecast upper quartile performance by 2024-25 in both normalised measures (per property and per kilometre of main). This performance is funded through the base allowance. We allow enhancement costs only where a company's performance commitment goes beyond the forecast upper quartile threshold. As this is achieved by Bristol Water, we allow some funding under enhancement, for the volume of leakage reduction delivered beyond the forecast upper quartile threshold the leakage reduction using the unit cost the company identifies to make the allowance. Our allowance is less than the company proposes as enhancement expenditure. Companies are able to earn outperformance payments if they deliver leakage reductions beyond their stretching performance commitment levels.	We provide an updated assessment based on shadow reported data, which shows a larger benefit using Ofwat's methodology and our original plan unit costs (in part this reflected us removing opex enhancement costs, because Ofwat's IAP approach assumed no opex enhancement costs – to have unit cost lowered because this approach then changes, and ascribing an efficiency gap to base by taking historic enhancement efficiencies for some companies off base, applies three adjustments for a single comparison). We support the methodology as a whole, but the application of it is too mechanical at the draft determination to acknowledge that we had supported it in the revised plan.
Bristol Water draft determination p.50	In all other areas we have retained Bristol Water's proposed RoRE range. There is a negative skew overall, driven primarily by outcome delivery incentives. Our view is that an efficient company should be able to achieve the base equity return on the notional structure. We expect Bristol Water to consider necessary revisions	The negative skew on outcomes applies to all companies at the draft determination, and therefore we see many reasons to suggest (unless Ofwat amends its PR19 methodology application back to that originally described that would allow the RORE ranges presented in the methodology document, such as ex-ante totex sharing and D-MEX higher and skewed incentives) that the RORE at the final determination exhibit a negative skew on outcomes. We make revised outcome incentive proposals and present Monte Carlo simulation of expected RORE impacts that inform, together with P10 and P90 ranges, our outcomes design for the draft determination response. This includes the asset evidence supporting the ODI relationships.

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	to its overall RoRE range in response to the draft determination.	