

Evidence against quality tests **Risk and return**









Water

Water

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Introduction

This document summarises the work South West Water has undertaken to assess the financial balance of the business plan to 2030.

Our plan is founded on a thorough assessment of:

- The impact of the building blocks of allowed revenues, including the cost of capital on customer bills
- How financeability has been assessed, including for the most recent market data on the cost of capital
- The factors affecting risk and return to providers of finance
- How uncertainty and risks should be mitigated, and the approach to fairly sharing any outperformance or changes in our delivery with customers.

For the period 2025-2030 Ofwat has set out expectations that companies will set stretching performance targets from base expenditure, whilst achieving symmetrical potential for risk and return.

We set out in this document the new and compelling analysis we have undertaken, supported by expert third-party analysis, to address this important challenge:

- We explore what change in service level has been achieved through past base ("what base buys") and enhancement expenditure, and what the performance trends are for cost benchmark expenditure and industry median performance
- Our outcome incentives reflect new research on customer views, translated to a "top-down" allocation as a percentage of RORE
- Finally, we build on our risk analysis at previous reviews by using the combined power of the "what base buys" analysis to truly ground our risk analysis in the relationship between service and efficient cost for customers.

This analysis has allowed us to keep bill increases to a minimum, using regulatory levers with customer interests and financial resilience in mind - a fair balance of risk and return.

Document Map

Level 1 • Main documents



Level 2 • Our strategic priorities



and resilience







gains



affordability and

delivering for customers



Action plans to 2025







Data.

information

and assurance



efficiency



and





Engagement affordability

of delivery

Level 4 • Supporting documents and data table commentaries

strategy







Enhancement business cases

an an an



What we have heard from customers and communities





commentaries

Markets and competition Strategic plans to 2050



Our Strategic Direction to 2050



South West Water Water Resources **Management** Plan



Bristol Water Water Resources **Management Plan**



South West Water Drainage and Wastewater **Management Plan**



Long-term Drinking Water Quality

Executive summary

Producing the right plan has required us to consider very carefully how we will finance our plan and the balance of risk and return consistent with the need to finance this essential investment. In this section we set out the financial building blocks that contribute to the revenue controls. We have used Ofwat's PR24 early estimate of the cost of capital. We set out our testing of financial resilience against both the notional and actual capital structures. We have provided additional testing based on an updated view of the latest market data as at the end of July 2023.

To support this testing of our plan we set out our analysis of the key risks that we face. We set out our view of the Return on Regulated Equity (RORE), and information on how this will need to be calibrated, both through outcome incentive design and through risk mitigants and uncertainty mechanisms.

Customer affordability and acceptability

Our plan sees real bill increases before inflation of 22% in the South West and Bournemouth areas and 18% in the Bristol area.

We are maintaining the differential between South West and Bournemouth area bills at 66%, which was the commitment at the time of merger in 2015.

Bill profiling

A key part of our plan has been to minimise bill impacts by smoothing the profile of bills. We have included PR19 totex reconciliation adjustments within the RCV, rather than split between fast and slow money. This, and the £600m of efficiencies we assume in our plan, have reduced bills by c.£40. We can do this without affecting our financial resilience, whilst balancing risk and return through our ODI design and targeted uncertainty mechanisms. This is the main thread for this Risk and Return section of our PR24 plan.

Balancing risk and return

Cost of capital

Although we have used Ofwat's 'early view' cost of capital (as per the Ofwat guidance) for the business plan modelling, we there are methodological changes would be appropriate. There are several issues that may merit updates to the WACC parameters.

The cost of equity is set without sufficient headroom over the cost of new debt. As debt investors have a seniority of claims over a company's assets, equity investors are subject to greater risks and as such require greater returns.

One test of adequacy of equity returns relative to debt is the Asset Risk Premium to Debt Risk Premium (ARP-DRP) framework developed by Oxera.¹ ARP calculated as unlevered cost of equity minus risk-free rate, estimates the risk premium required by capital investors to invest in risky assets. DRP—calculated as the cost of new debt minus risk-free rate minus expected loss, estimates the risk premium required by investors to hold risky debt. Due to priority of claims, rational investors will always require ARP to be sufficiently higher than DRP.

Ofwat 'early view' implies an ARP-DRP of 0.65%. This is a significant decrease from the historical precedent—1.70% in PR19 Final Determinations. This signals that the cost of equity may be set too low.

Ofwat may wish to revisit the position taken by the CMA at PR19 on the inclusion of a convenience premium on the risk-free rate. The CMA has determined that non-government bonds face additional liquidity risks relative to government bonds. Hence, the use of AAA-rated non-government bond yields is a suitable input to the RFR estimation.

Since the publication of the PR24 Final Methodology, the risk-free rate has risen significantly. There is a considerable expectation that the risk-free rate will continue to rise and remain at a relatively high level over AMP8.

¹ Oxera - Cost of capital for PR24: Final report for South West Water (25 August 2023)

As we illustrate below, the RORE framework, if we follow precisely the PR24 methodology, would continue to exhibit a material asymmetry for ODI incentives. Industry underperformance on totex and ODIs in AMP7, in particular in 2022/23, provides evidence for this. We have worked with Oxera to develop compelling analysis tools and evidence in these regards.

Our ODI design and uncertainty mechanisms avoid the need to take the same steps that the CMA did at PR19 of "aiming up" of the cost of capital. Both the CMA, UKRN guidance and the PR24 methodology prefer solving the incentives asymmetry at source. We present compelling evidence in our plan in support of this – it is better to have balanced incentives rather than higher returns. We do not agree with a regulatory framework that implies we are likely to fail a range of targets even where we are performing well overall as a business. This approach is not sustainable for the water sector in the long-term.

Return of Regulated Equity (RORE)

Our overall notional RORE risk range in our plan is 0% to 8.6%, around our central forecast for a market updated cost of capital of 4.6%.

The balance of risk and return in the PR24 methodology could be improved, as we believe it is difficult to accept that there is a greater than 10% chance of negative returns to equity as implied by the PR24 methodology. Our risk testing suggests a much greater risk of significant negative returns to equity without mitigating the key risk factors, as proposed in our plan.

Even with risk mitigation, we believe this may need Ofwat to revisit the cost of equity in order to provide sufficient returns to investors to finance the essential enhancement investment set out in our plan.



We describe the key risk factors within this RORE range further in the section below.

Key risk factors affecting RORE

Totex

We estimate the total totex risk range at +1% to -1.2%. This reflects a) the stretching efficiency assumptions we have assumed in our plan to ensure that customers only pay for efficient services b) the uncertainty that exists within the cost of storm overflow enhancement upgrades; and c) economic uncertainty affecting supply chain costs, in particular labour, power and global materials and construction supply chains.

We have mitigated these risks with our proposed uncertainty mechanisms – there would be a wider totex risk range of +1.6% to -2.8% without these proposals.

We propose risk mitigants below to help offset this risk, which is in both customer and investor interests.

ODIs

Ofwat's approach to ODIs and Price Control Deliverables (PCDs) would benefit from further iteration in the best interest of customers and investors. We present compelling evidence supported by customer research.

We believe that given the delivery risks we face, it is appropriate to target a ODI RORE risk range of +/- 2%. Our analysis shows a RORE risk range of +1.7% to -2%. We have made a number of proposals (set out in our outcomes section) to achieve this balance, including a range of deadbands, collars and caps. We also include our own incentive rates and justified bespoke ODI proposals – these are all necessary to provide a reasonable balance of risk and return and to protect customer interests.

The RORE framework in AMP7 already demonstrates a significant level of risk, with no companies outperforming common ODIs in 2022/23. The overall RORE ODI average is -0.8% with a range from +0.7% to -3.6%. No companies net outperformed common metrics. As target levels improve, the RORE risk across the industry can increase across an AMP7, and the PR24 methodology framework is notably harsher. This is not sustainable or conducive to the efficient financing for the long term of the water sector.

Customer measures of experience

We do not believe that the C-MeX proposals Ofwat consulted on in July 2023 provide a range of risk consistent with the -0.65% to +0.5% set out in the PR24 methodology – for instance the potential restriction of C-MeX upside to companies with a UKCSI score higher than the all sector average. This would only have applied to Bristol Water in 2022/23. To achieve the RORE incentive range, there should be a symmetrical balance across the customer measures of experience, C-MeX, D-MeX and Br-MeX

Financing risk

Our embedded debt costs at 2.4% are c.0.25% below our expectation for the cost of embedded debt when updated for latest market data. We assume that the cost of new debt will be in line with our assumption of 3.28% real from the Ofwat PR24 methodology. Recent industry new debt raise costs are broadly in line with relevant indices so Ofwat should not assume any discount, or this will create asymmetry in the notional financing risk range.

Interest costs are therefore reflective of the cost of capital and rise in line with debt requirements. Therefore, financing risk is chiefly related to expenditure risks, which are mitigated through our totex proposals.

Revenue risk

Our plans for fairer and progressive charging mean there is more potential for RFI variation as we use this approach to ensure new capacity is paid for fairly. To meet the Ofwat PR24 expectation, we propose (as per the recent RFI consultation response) that revenue variation risk from novel tariffs is not penalised through the RFI framework.

Uncertainty mechanisms

Our plan should be viewed as a package of measures. Our aim is to get essential investment financed and delivered, in a way that minimises bill increases to customers.

We propose the standard totex sharing rates, including higher customer shares for EA charges and business rates to reflect appropriate risk management allocation. We do not include specific Notified Items in our plan, on the basis that any remaining uncertainty in statutory requirements from WINEP will be clarified before Final Determinations. We assume the standard Direct Procurement for Customers Notified Item would apply due to its likely use for major new water resource developments such as Cheddar 2.

We propose a specific uncertainty mechanism for Storm Overflows, reflecting the unusual cost uncertainty and the scale of the programme. To maintain efficiency incentives, we suggest this should be based re-assessing delivery efficiency at the end of AMP8, using the same models as Ofwat develop for PR24. This could replace the complexity that PCDs will add to PR24.

WaterShare+

We propose to maintain our existing WaterShare+ mechanism. It is a unique approach, and puts social responsibility at the core of our business by sharing the benefits of prescribed outperformance by allowing customers to have a share and stake in the business, or a bill reduction. To date c.1 in 14 of South West area customers have taken up the share options. We are targeting uplifting this to 1 in 10.

At PR14 the original WaterShare framework included a scorecard that set out how performance was shared with customers across cost base, delivering outcomes and other factors such as legislative change. For PR24 we propose to use WaterShare+ to track and be transparent about delivery against our obligations and new cost pressures that arise.

The financial lever proposals as part of our plan already provide some early benefit to customers. We propose to track PCDs through WaterShare and if there is a net benefit arising for customers, consider the impact on voluntary sharing. We think this approach could help to simplify PCDs, which could become very complex and risk unintended consequences if there are changing obligations that means programme delivery naturally changes. Ongoing scrutiny and transparency of through WaterShare will allow a simpler regulatory framework, with Ofwat acting as a backstop through its annual monitoring and PR29 frameworks.

2027/28			
WaterShare+	TOTAL	CUSTOMER	SHAREHOLDER
PERFORMANCE	Cum. £m	Cum. £m	Cum. £m
Delivering outcomes	10	3	7
Cost efficiency	10	5	5
Other factors	(10)	(4)	(6)
Impact of financial lever choices at PR24	(5)	o	(5)
Total	5	4	1
SHARE			
Net costs carried forward	(10)	(4)	(6)
WaterShare+ Bristol Water merger and other benefits	20	20	
Amount already shared	(10)	(10)	
Total	0	6	(6)
Return on Regulated Equity			8.1%

Supporting Financial resilience

Building blocks of our plan *RCV*

The opening RCV at 31 March 2025 of £4,985m (2022/23 FYE prices) reflects the outcome of the PR19 reconciliation mechanisms and includes uplift for green recovery accelerated investment.

We have also included the additional RCV for IFRS16 confirmed by Ofwat in 2020.

The RCV grows by 4.5% p.a. in real terms because of the enhancement investment programme.

Wholesale expenditure

We demonstrate in the cost and efficiency section of our plan the effectiveness and efficiency of our projected £1.7bn of wholesale base opex and £1bn of wholesale base capex. We forecast these costs will overall reflect an upper quartile cost allowance, providing evidence that this is an appropriate assumption.

This includes 0.5% frontier shift on base costs, but does not include a potential 1% p.a. Labour Real Price Effects that was also supported by market evidence. In addition to this our base costs do not include £300m of anticipated expenditure which are investment require, although in part this is where we believe there may be innovative solutions across different areas of expenditure that will help deliver them.

We also believe our enhancement programme to be efficient and effective – evidence is also provided for this for each investment case. We set out where we have identified overlaps with base investment, deducted this from our proposed expenditure, and then not added this to base costs unless there are new obligations. There is c£300m of cost savings identified in enhancement projects that will come from innovation, operational improvements and programme management (c£600m efficiency savings overall). This would double count the application of any additional frontier shift, which has been incorporated into our cost projections as part of our cost confidence and deliverability work.

PAYG

We have maintained intergenerational equity using a PAYG rate that, as historically, includes both Opex and infrastructure maintenance expenditure. Our infrastructure maintenance expenditure projections are aligned to AMP7 outcomes, and therefore we believe this provide sufficient evidence that this should continue to be included.

The weighted PAYG rate is 40.3%, a significant reduction from the 57.4% at PR19, due to the increase in enhancement investment. The PAYG rate is 49% water services and 31% wastewater based on the differential level of the enhancement programme.

RCV run off

The enhancement capital investment requires a significant uplift in funding in future AMPs.

Hence, the selection of an appropriate RCV run is key for ensuring that the costs are distributed fairly between the current and the future customers. We are opting to maintain our RCV run-off rates from PR19. Given that Ofwat's methodology provides a cap of 4.5% of RCV run-off rate—where our PR19 rates were above this level, we have assessed a slightly higher level of 4.6% based on our depreciation needs and future investment. The water service rate is 4.4%, wastewater 4.9% and bioresources 4.8%, based on the future profile of investment and depreciation. This is a reduction on the weighted 5.0% from PR19.

We have not adjusted RCV run off rates or PAYG rates for financeability purposes.

Retail costs and margins

Retail costs overall are expected to be efficient. We also apply a 1% net margin on wholesale costs.

Reconciliation adjustments

There are £218m of revenue adjustments from PR14 and PR19 reconciliation mechanisms. The largest of these is for SWB totex sharing, which reflects additional expenditure on priority performance areas. This £129m of revenue we have adjusted to increase the RCV rather than recover on a PAYG basis.

Financing the plan

To attract and maintain efficient financial funding for that investment, we require a fair return for our investors whilst ensuring that customers' bills are as low as they can be.

We seek to ensure that our business priorities are reflected in our financing approach. We have developed and implemented a sustainable financing framework, one of the first of its kind in the UK. All our debt financing requirements will be assessed under this framework, which benchmarks South West Water's performance against environmental, social and governance factors alongside the cost of funding. Since implementing the framework, all of South West Water debt has been raised complying with its requirements. Sustainable financing through green, impact and social loans is a developing market, and access to this market gives South West Water increased options and flexibility.

A financeable plan Target credit rating and financial ratios

We confirm that our financial ratios continue to be consistent with a strong investment grade rating of at least Baa1. We expect to comfortably maintain financial ratios at a level required for at least Baa1 rating, both on notional and actual company basis.

We confirm that we will obtain two credit ratings for the purpose of licence condition compliance by the 1 April 2025, consistent with the requirements of our licence. Gearing is forecast to be below the 61.7% 2022/23 actual at 61.1% at the start of AMP8 before increasing to 64.6% at the end with the increase in the capital programme.

Our key financial ratios are:

	2025- 30	Planning Target
	actual	
	average	
Gearing Net Debt/RCV	63.4%	<65% to 70%
Adjusted cash interest cover (Ofwat measure)	1.82x	>1.5x
FFO/net debt (Ofwat measure)	10.4%	>10%

Financing assumptions (including refinancing, new to embedded debt)

We plan to finance c.60% of existing debt between 2025 and 2030, which is above our prudent notional assumption of 34%. We currently have one of the lowest nominal cost of debt and regulatory gearing close to 60% at 31 March 2023. Therefore, we are confident that the debt assumptions included in plan are sustainable.

Our embedded cost of debt is forecast to be 2.4% CPIH real, compared to the 2.5% estimated by KPMG in its recent study, and the Oxera estimate of c2.65%. Our forecast cost of new debt is expected to be consistent with the iBoxx indices. We do not believe that the 0.15% outperformance wedge approach taken by Ofwat in the PR24 methodology is supported by the most recent water sector issuances. Although we have not made this methodological change to support Ofwat's goal of calculating bills with a consistent cost of capital, we anticipate Ofwat will consider this evidence before draft and final determinations.

Due to our sustainable financing framework our debt/RCV gearing ratio has reduced to 62% in 2022/23. We therefore consider it is realistic for us to adopt Ofwat's notional gearing assumption of 55% for PR24. This has been supported by the increased retention of equity given recent inflation leading to higher levels of RCV growth.

We do not need to raise new equity to finance our plan, but keep the option open as part of our sustainable financing framework.

Financial resilience

We confirm that we remain financially resilience to a range of plausible adverse scenarios, both based on notional and actual financing structures.

Our financeability scenarios show that our plan is resilience to a range of plausible scenarios. The standard Ofwat scenarios generally show little impact, and therefore we have also considered our own combined scenarios. These scenarios do not require mitigation measures such as restricting dividends, raising new equity or expenditure reprofiling.

An example of the scenario output that shows broadly stable ratio trends and the difference to the base plan profile is shown below:



The scenarios demonstrate that the actual capital structure provides sufficient resilience to maintain Baa2 levels of ratios in the years where the underlying cause of the scenario stress factor applies. As ratios recover after the event, the ratio profile means that strong investment grade credit ratings of at least Baa1 are maintained.

Outcome Incentives

We have calibrated our outcome incentives and thoroughly tested that this design forms part of a fair balance of risk and return. Based on our ODI design, rolling our 2022/23 performance into the PR24 incentives framework alone produces a downside risk of -2.6% using our incentive rates.

We believe our investment programme is appropriate to support a lower range of risk, and the RORE risk assuming 2024/25 targeted level of performance is -1.1%. Industry performance in 2022/23 illustrates that there are a wide range of external factors, in particular weather and external third party events that it is not efficient or effective to expect the water industry to fully mitigate through investment. Our customer research demonstrates that this is not their expectation. This must be reflected in RORE design, such as through deadbands for CRI and mains repairs that are particularly affected by external factors, where the customer detriment is not generally there when weather impacts occur (and customers are also protected through compensation arrangements e.g. supply interruptions).

There are a wide range of risks which are not within direct management control and where data to calibrate ODIs is limited, including data and definition uncertainty, particularly where Ofwat are setting ODI common levels based on new or changed definitions. The proposed symmetrical adjustment (sharing 50% above 3% and 90% above 5% return on equity) with customers is insufficient protection – a range of adjustments to the PR24 methodology is justified by the evidence we present in our plan.

We have undertaken our own robust top down ODI research. Our analysis based on the probability ranges, targets and deadbands shown on the previous page supports this, with a +0.8% to -0.9% if we link probabilities where there is a connection (e.g. leakage and mains repairs).

We welcome Ofwat's engagement with our emerging thoughts on how we can balance incentives within the regulatory framework. This has helped us construct a highly ambitious plan that ensures our region gets the services it wants at a fair price, with investors attracted to the water industry. We are ready to deliver for the region and look forward to discussing the range of options we and others set out in business plans during 2024.

Our plan sets out a summary of the supporting customer research which includes:

- A robust methodology for establishing ODI incentives top down, based on customer priority research
- A "What base buys" tool that ensures the targets that we set are stretching and linked to efficient base cost forecasts. This includes a methodology for considering across the industry what contribution has been made from past enhancement expenditure
- A new analytical tool that builds on the "What base buys" analysis to then look at the statistical relationship between performance metrics in order to thoroughly test the service-cost relationship and performance risk, in order to demonstrate whether ODI designs are well constructed.

We have undertaken linked risk analysis, supported by Oxera, which has further developed the Bristol Water undertook at PR19 and informed the CMAs cost of equity "aiming up" and ODI design adjustments. This is built on the "what base buys" analysis we have also developed with Oxera.

Our testing demonstrates that our ODI design proposals produce a balance of risk and return.



Our analysis tests what ODI risk exists through Monte Carlo simulation in two stages – first assuming independent distributions based on P10 and P90 ranges for each measure, and then linking the probability for related measures such as leakage, supply interruptions and mains repairs, and flooding, pollution and storm overflows. We consider the overall ODI design through this suite of analysis. Our Business Plan 2025-2030 • Risk & Return

Dynamic incentives

Our analysis demonstrates that ODI risk and return performance remains sensitive to weather and third party impacts, as demonstrated across the industry in 2022/23. It proves hard, particularly with new ODIs, to arrive at a symmetrical balance of risk and return without calibrating with ODI caps, collars and deadbands. For many metrics we identify an alternative - using dynamic incentive targets that could keep the full power of incentives to deliver improved performance, whilst not penalising companies for external factors that have widespread industry impacts. This novel approach could help to balance stretching targets with balanced risk and return.

Price Control Deliverables (PCDs)

We have developed Price Control Deliverables In 18 groups, tested using thresholds of 1% and 0.5% of relevant totex. We have not deducted the value of outcome incentives from our Price Control Deliverable adjustment rates, given the ODI protections we have included in our plan and that most of our ODIs are appropriate as scheme delivery outputs, rather than outcomes.

We do not believe it appropriate to include outcome based PCDs without this being reflected in the RORE range. The PCDs we have assumed within our proposals are therefore largely based on the delivery of the specific enhancement schemes. This approach avoids a further value risk being necessary within the RORE risk framework. Many of these schemes have been proportionately allocated between base and enhancement and affect multiple enhancement categories and ODIs.

We believe that most of these PCDs will operate as one-way adjustments for delayed schemes, but should there be a good case for two-way adjustments because of agreed changes with regulators or stakeholders, this should be considered at PR24.

We also propose that we track PCDs and other notified items through the WaterShare+ framework, and if there is a net benefit to be shared with customers early on these items, this is taken into account at PR29.

Transparent and clear policies

Dividend policy

We plan to continue with our existing dividend policy which we believe fully complies with Ofwat's expectations. This policy means that the dividends we pay reflect our performance against regulatory targets.

Dividends

We have assumed a dividend yield of 2% and real growth of 0% p.a. This reflects that our real RCV growth is above 2% and therefore retains equity.

Because of this we do not anticipate raising new equity at this stage. Therefore, we have not included in our plan the cost of raising new equity that the PR24 methodology would allow, which at a 2% cost of raising new equity is c.£7m over 2020-25.

Executive pay and remuneration policy

We set out an updated and comprehensive executive remuneration policy within this document. A number of changes have been approved, increasing to 70% the share of the annual bonus arrangements that are linked to the four priority areas of water quality and resilience, storm overflows and pollution, Net Zero and environmental gains and affordability and delivering for customers.

As part of these arrangements, the remit of the WaterShare Customer Advisory Panel will be expanded to vote on South West Water Executive Pay.

Long-term incentives within variable pay are expected to reduce by 50% and replaced with a restricted stock plan linked to the share price and overall performance of the business.

DPC and Strategic Water Resource Investment

As set out elsewhere in our plan, we do not have any schemes that meet the criteria of being suitable for DPC, other than the Strategic Water Resource Option schemes for Cheddar 2, Poole and Mendip Quarry. For Cheddar 2, we have not included any ARD payments in this plan, as construction is expected to complete in 2033 and operational use in 2035, therefore this will only trigger ARD at this point. The preparatory work commences at the site in 2028. As Cheddar 2 goes through the gateway process, the form of the financing approach will be confirmed, and we propose a notified item similar to that used in other schemes to allow for the financing approach taken to be reflected in customer bills, and also to allow for interim determination in the unlikely event that this is financed through the standard revenue control/RCV process.

Key Messages



Customer affordability and acceptability

Bill Levels

The average bill increases range from 18% (3.4% per annum before inflation) in the Bristol area to 22% (4.1% per annum before inflation); in the South West and Bournemouth areas. The bill increase has been phased in through financial levers, expenditure phasing and a small amount of bill profiling, without any negative impact on financeability. The South West bills shown below are before the application of any £50 Government Contribution.



Average bills, £ real 2022/23	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	Total increase	Average annual
South West	£507	£545	£577	£606	£617	£620	22%	4.1%
Bristol	£205	£219	£227	£234	£237	£242	18%	3.4%
Bournemouth	£137	£148	£159	£165	£166	£167	22%	4.0%

In the Bournemouth area we maintain the differential between South West and Bournemouth area water bills at c.66%, which was the commitment at the time of merger in 2015.

The Bristol area bills include c.£12m of voluntary deferment of revenues (5% less K factor than determined in 2023/24 and not recovered in 2024/25). This was agreed by Ofwat as a measure to support customers with the cost of living crisis. This is recovered over AMP8, and without this adjustment the bill increase would have been 8% in real terms rather than 18%.

The main drivers of South West area bill increases are higher totex (c.+12%) offset by lower PAYG rates (-8%). The cost of new investment and a higher WACC both add c.10% to bills.

For Bristol area the chief factor affecting bills is the 10% bill increase from voluntary deferment of K in AMP8. The remaining factors are the higher WACC and the cost of new investment.

Detailed building block information is set out in Annex D.

Bill profiling

To aid with customer affordability we propose some bill profiling, as well as the financial, as we plan to absorb some costs in AMP8 which reflect expenditure in targeted areas to improve performance. Most of our bill profile comes from the financial levers, including totex reconciliation from PR19 being added to the RCV rather than including the PR19 PAYG element to post-financeability revenue adjustments through the financial model.

Customer perspectives on risk and return

We have tested plans with our customers over the last two years – starting in September 2021 around the future direction of our plans and ending with affordability and acceptability testing (AAT) – using the Ofwat approach but also following this with final testing as we looked to made final changes to our plan in light of the results of the AAT testing.

Our research has shown that most customers have an affordable bill. Bills in both our Bournemouth and Bristol regions have been assessed as 100% affordable, with bills in our South West region only slightly behind at 96.1%.² Moreover, the majority of customers (99% across the South West and Bournemouth regions)³ have no problems or rarely have problems paying their bill. This is a stable position from which to build on and achieve our ambitions. We plan to use a mixture of social tariffs and progressive charges, so future capacity is paid for by those who benefit from it, in order to keep bills affordable.

We set out highlights of our research in an Annex A to this document.

² ICS South West Water Affordability survey results 2022/23 for SWW/BW, BRL is taken from the APR 2022/23.

³ ICS South West Water Affordability survey results 2022/23

Key financials

Income statement

The income statement reflects that revenue increases in respond to investment, with increased enhancement expenditure resulting in additional operating profit. PBT stays broadly stable after the initial application of a higher cost of capital. Dividends reduce due to the restriction of the base dividend yield to 2% from the c.3% and 1% p.a. real growth that had previously been applied.

880.848 494.448 0.497 386.897 9.345	943.828 -511.763 0.507 432.573 9.943	981.775 -533.741 0.518 448.551	1,025.727 -559.244 0.528 467.011	1,073.320 -588.085 0.538 485.774
0.497 386.897	0.507 432.573	0.518 448.551	0.528	0.538
386.897	432.573	448.551		
			467.011	485.774
9.345	9.943	10 20/		
		10.294	10.654	11.030
2.199	2.016	1.952	1.705	1.705
158.972	-170.417	-189.651	-204.719	-222.968
0.000	0.000	0.000	0.000	0.000
239.469	274.116	271.146	274.652	275.540
0.000	0.000	0.000	0.000	0.000
239.469	274.116	271.146	274.652	275.540
0.000	23.463	18.576	15.701	13.142
-75.796	-19.116	-25.447	-30.627	-33.900
163.673	278.462	264.275	259.726	254.783
-50.556	-53.806	-57.657	-61.702	-65.605
2	158.972 0.000 239.469 0.000 239.469 0.000 75.796 .63.673	2.1992.016158.972-170.4170.0000.000239.469274.1160.0000.000239.469274.1160.00023.46375.796-19.116.63.673278.462	2.1992.0161.952158.972-170.417-189.6510.0000.0000.000239.469274.116271.1460.0000.0000.000239.469274.116271.1460.00023.46318.57675.796-19.116-25.447.63.673278.462264.275	2.1992.0161.9521.705158.972-170.417-189.651-204.7190.0000.0000.0000.000239.469274.116271.146274.6520.0000.0000.0000.000239.469274.116271.146274.6520.00023.46318.57615.70175.796-19.116-25.447-30.627.63.673278.462264.275259.726

Balancing risk and returns

Cost of capital

For the purposes of our business plan we have used the Ofwat PR24 methodology Weighted Average Cost of Capital (WACC) of 3.29% (appointee real CPIH terms).

We believe it will be appropriate for Ofwat to update this early estimate for changes in market data and new information during 2024. We estimate that the cost of capital based on July 2023 market data is 3.74%. This is due to an increasing risk free rate, which has a small impact on the cost of capital (as in line with Ofwat's methodology we keep the nominal total market return constant) but a larger impact on the cost of new debt. We also for this scenario believe with a larger industry enhancement programme, the new to embedded debt ratio will be higher than the 17% initially assumed, and have assumed this prudently to be 34%. This is based on an industry estimate based on a range from 2 - 4 times the enhancement programme from PR24, also considering the impact of lower gearing and PAYG rates. However, we observe that Ofwat will have better information than we do based on receipt of PR24 business plans and this estimate is only appropriate for the purposes of sensitivity testing.

Our cost of capital summary is set out in the table below:

CPIH – real	PR19 (Ofwat)	PR19 (CMA – excluding Bristol Water company specific adjustment)	Ofwat PR24 methodology	Estimate using updated market data AMP8 estimate (updated to end July 2023)	Potential PR24 outcome when considering industry risk
Gearing	60%	60%	55%	55%	55%
Total market return	6.5%	6.81%	6.00% – 6.92% (mid-point 6.46%)	6.46%	6.95%
Risk free rate	-1.39%	-1.34%	0.47%	1.54%	1.64%
Notional equity beta	0.71	0.71	0.58 – 0.64	0.61	0.63
Return on equity	4.19%	4.73%	3.67% – 4.60% (4.14% mid- point)	4.56%	4.97%
Cost of embedded debt	2.42%	2.47%	2.34%	2.65%	2.69%
Cost of new debt	0.53%	0.09%	3.28%	3.59%	3.74%
New to embedded debt ratio	20%	17%	17%	34%	34%
Issuance and liquidity	0.1%	0.15%	0.10%	0.10%	0.10%
Return on debt	2.14%	2.18%	2.60%	3.07%	3.15%
Appointee WACC	2.96%	3.20%	3.29%	3.74%	3.97%
Retail margin deduction	0.04%	0.08%	0.06%	0.06%	0.06%
Wholesale WACC	2.92%	3.12%	3.23%	3.68%	3.91%

We set out our detailed analysis of the cost of capital in Annex B.

Return on Regulated Equity (RORE)

Risk analysis

We have considered RORE risk from the perspective of the normal business and industry uncertainties against which we deliver our key business priorities. Wherever possible we have considered this from the perspective of the notional company – what evidence is of the general risk facing the industry.

This is challenging in the current context – Annual Performance Report information for AMP7 (including our own analysis based on initial 2022/23 data) suggests the industry as a whole is overspending on totex and underperforming, particularly on common ODIs.



Summary of overall RORE balance

	Ofwat framework	Our range
Quality and Ambition assessment	+0.3% to -0.3%	Zero
Total cost	+1.3% to -1.2%	+1.0% to -1.2%
Outcome incentives	+2% to -2% (+/- 1 – 3%)	+1.7% to -2.0%
Financing	+0.7% to -0.65%	+0.7% to -0.7%
Measures of experience	+0.5% to -0.65%	+0.6% to -0.65%
Revenue incentive mechanisms	0.% to -0.05%	0% to -0.05%
Total upside (10% of the time)	8.84% (+4.7%)	8.6% (+4%)
Central return	4.1% (4.14%)	4.6% (4.56%)
Total downside (10% of the time)	-0.71% (-4.8%)	0.0% (-4.6%)



Our central return of 4.56% represents the return on equity using the Ofwat methodology updated for more recent market data to the end of July 2023. In line with the Ofwat methodology we have undertaken bill impacts and present our plan based on the original 4.14% September 2021 point estimate.

The overall RORE range is broadly consistent with Ofwat's PR24 methodology. Despite our ODI design and totex protections, there remains a small element of asymmetry with a RORE range of 0 - 8.6% / +4% to -4.6% around the central return on equity. Therefore, as part of plan calibration we believe there will need to be some additional consideration on the return on equity. Given the uncertainty mechanisms that we propose, we believe this degree of asymmetry to be appropriate. It should also be seen in the context of:

- Our proposals on financial levers, which reduce bills by c£20, including £1 from assuming dividend retention rather than raising new equity.
- Our actual financing which on an actual / notional basis may allow for financing outperformance of 0.3% 1.8% per annum, subject to Ofwat's view on the cost of capital evidence we provide. On this basis we believe
 the notional RORE range would be symmetrical at between 0 9% and 2 10%. We note the 2 10% range
 this higher range would be consistent with PR14 and PR19 determinations and increasing investor
 expectations given the uncertainties surrounding the regulatory framework.

The totex risk (wholesale and retail) amounts to $\pm 1.0\%$ to $\pm 1.2\%$. We show this as a joint range as the main retail risk relates to the pressure on bad debt from rising wholesale charges, but our view of retail cost risk broadly aligns to Ofwat's notional assumptions at $\pm -0.2\%$. This reflects that we expect to be at SBB appointee level at the upper quartile level of efficiency across household retail costs. We set out our detailed totex risk assessment in Annex C.

We set out in Annex C the extensive testing we undertook with Oxera for "what base buys", understanding industry performance trends both for the benchmark company and the industry on average. This gives us confidence that the totex mitigations set out in our plan and outcome incentives designs are both necessary in order to produce a balance of risk and return consistent with the allowed return on equity (updated for market data and industry risk). This establishes a clear sector relationship between services and cost, which demonstrates that the efficiency assumptions in our plan our robust, and provides support for both our RORE assessment and our financial resilience testing.

ODI Incentive range (£m p.a.)

The yellow and blue bars represent the P10 and P90 ranges for each incentive. Red and dark green bars fall outside of the P10 and P90 expected performance range, and light green represents the potential impact of enhanced ODI performance incentive rates.



We tested our ODI design through with a number of scenarios – this covered both SWB and BRL separate ODIs and incentive rates, but we consider the overall impact at appointee level. For this analysis we include Isles of Scilly metrics within SWB, although for the key regulatory measures that are monitored separately for Isles of Scilly we propose these should be separated out as ODIs.

As set out above, for outcome incentives we have established, based on our ODI design, a RORE range of +1.7% to -2.0%. We have tested through Monte-Carlo simulation a range of scenarios for what the combined RORE risk range, which suggests a narrower range of +0.8% to -0.9%. However, this is sensitive both to the ODI design and the ranges shown, and given the uncertainty created by changes in ODI definitions and a lack of robust industry data of how cost link to performance for these metrics (e.g. water quality contacts, the changes to pollution incident definitions by the Environment Agency, the increasing trend in CRI within the industry, including raw water outage within unplanned outage definitions), we have concluded following sensitivity testing work undertaken with Oxera that the +1.7% to -2.0% ODI range is appropriate. Details are set out In Annex C.

For financing costs we have adopted the Ofwat notional financing range of +0.7% to -0.65%. We have made a minor adjustment to this range, based on the evidence presented by Oxera that (consistent with the CMA at PR19) that no outperformance wedge should be applied to IBoXX rates on the cost of new debt. Removing the 15bps reduces the downside risk by 0.03% (0.15% * 34% new to embedded debt ratio * 55% gearing). As we set out in the cost of capital section, this is consistent with adopting the December 2021 methodology cost of capital. We do not believe the financing range is likely to change with the updated market data as at July 2021 which we use for financial resilience scenarios.

For measures of experience we believe it is important that Ofwat set a symmetrical range for C-MEX, D-MEX and B-MEX. We disagreed in our response to the recent consultation which set new entry thresholds for C-MEX. Based on 2022/23 performance, if UKCSI was used as an entry point for outperformance, only Bristol Water would have qualified. The consultation was equivocal on the final design, and therefore we assume a symmetrical range in order to be consistent with the allowed return on equity. As elsewhere in our plan it is important this principle of symmetrical and where appropriate dynamic incentives is retained, as the alternative of "aiming up" increases customer bills rather than resolving the asymmetry, which is not supported by customers in terms in general and in particular for customer experience measures of performance.

For revenue incentive mechanisms we include the -0.05% to 0% suggested by Ofwat. We responded to the recent RFI consultation setting out that in order for this range to remain consistent with the regulatory framework, we need to consider the risk that tariff trials and progressive / novel tariffs result (by design) in more revenue variation. If there is not unpredictable revenue variation from these trials, then we will learn little and the purpose of running trials could be negated. Therefore our view of the notional RORE range is that the RFI will exclude incentive penalties for non-standard tariff trials and implemented novel tariffs where the designated purpose is to induce greater variability (e.g. in response to exogenous weather conditions) in revenue than for standard tariffs.



For more information see Outcomes

Uncertainty Mechanisms

Uncertainty mechanisms and risk mitigants

An integrated approach to achieve the minimum impact on bills

Our plan should be viewed as a package of measures. Our aim is to get essential investment financed and delivered, in a way that minimises bill increases to customers. At this price review (and projected into future reviews) there is a significant increase in enhancement investment, and the balance of risk and return with uncertainty mechanisms is important to protect customers, as well as to finance investment at a minimal cost.

In order to minimise bill increases we have gone beyond the minimum expectations of the PR24 methodology and included PR19 totex reconciliation adjustments within the RCV rather than split between fast and slow money. We have also included a lower PAYG rate than historically seen. Infrastructure maintenance remains at a stable level and therefore this remains our view of the long-term natural PAYG rate that maintains intergenerational equity. We have not asked customers to pay the cost of raising equity we do not expect to require. The RCV run off rate is therefore at or slightly above the Ofwat upper limit at 4.5% at 4.6%, based on the weighting of our individual control depreciation and investment profiles.

We can only make our proposal that minimises bills if it is a part of a package of uncertainty mechanisms and risk mitigations included in the plan.

An approach for wider debate and consultation

This is our package of proposals for our business plan but recognise that Ofwat will have a wider set of information from other company plans. We recognise that Ofwat may need to consult on some of these methodologies and proposals where they are different to the PR24 methodology, and where this is the case we indicate these as alternative options. An example is our "dynamic incentives" proposal that is a new form of outcome incentive that can better deal with uncertainty. We set this out as part of our RORE scenario analysis in Annex C.

Our guiding principles are:

- Allocating risk appropriately to where it can be managed
- Sharing the benefits of outperformance fairly with customers
- Supporting long term investment
- Evidenced based, supported by research and modelling

We have shared with Ofwat ahead of submitting our plan some of the approaches (such as dynamic incentives) and evidence (the Oxera "what base buys" analysis and ODI customer research) that supports our considerations. We would welcome the opportunity to share the approaches with other companies as part of a further consultation, alongside other company ideas from their plans, and help construct a consultation ahead of PR24 draft determinations to garner views and ideas to implement some of the options we have identified across the water sector, recognising Ofwat's preference for commonality of approach between companies at PR24.

We propose a number of risk mitigants within our plan. These cover areas of:

- Cost Base
- Notified Items
- Specific Uncertainty Mechanisms and Risk balance
- Storm Overflows

Cost base

These proposals align with the PR24 methodology.

Cost base area	Rationale	% (Company, customer)	What this achieves
Totex sharing rate (water and wastewater wholesale control except bioresources)	Standard totex sharing costs should reflect the overall plan balance. Given the uncertainty and changes in process associated with PR24 we believe this sharing rate is likely to be a fair outcome for PR24, and is our plan assumption ahead of Ofwat's QAA assessment process.	50:50	Enables cost assessment and changes in the programme to be made whilst maintaining efficiency incentives
Business rates (water and wastewater wholesale controls except bioresources)	Business rates are a significant part of our operating cost base. The previously delayed valuation implemented 1 April 2023 saw a reduction in cumulo rates for both SWB and BRL. The business rate revaluation due 1 April 2026 has uncertainty on the outcome which falls outside of management control. The evidence suggests that an increase in cumulo rates is likely. We propose a specific cost sharing rate as the risk / opportunity would appear similar to PR19.	25:75	A significant cost projection and including the estimated increase in our plan means that any variation should be weighted towards customers.
Environment Agency charges (water and wastewater wholesale controls except bioresources)	EA charges represent a material and uncertain part of our water operating cost base and are a material cost element. Changes in abstraction licence cost recovery continues.	25:75	Reflects cost recovery outside of company control which is on behalf of the environment
Wage costs	We have not assumed any above CPIH indexation within our cost projections. We propose continuing the PR19 approach. We proposed that the ONS Average weekly earnings index, electricity, gas and water supply (K57Y) is used, rather than the ASHE average weekly manufacturing earnings index. [Ref: First Economics: PR24 Input Price Inflation (February 2023)].	Indexation above/below CPIH	Reflects macroeconomic uncertainty and avoids ex- ante cost projections
Energy costs	We have assumed a profile for energy prices within operating costs, based on our forward cost projections. We propose that energy operating costs are indexed using the BEIS index of industrial electricity prices, including CCL [Ref: First Economics: PR24 Input Price Inflation (February 2023)].	Indexation above/below CPIH	Reflects macroeconomic uncertainty

Cost base area	Rationale	% (Company, customer)	What this achieves
Retail price controls	We continue to support Ofwat's methodology and that the retail price controls can be simpler. This is on the basis that bad debt costs will be projected to increase proportionately with the increase in wholesale charges, based on the cost models including forecast average bills as a cost driver, and that a long term inflation projection of 2% is included. For labour costs in retail we believe Ofwat should use the RPE forecast of 1% above CPIH in setting retail cost model allowances.	100:0	Consistent with the simpler form of the retail control, in line with Ofwat PR24 methodology.

Notified Items

These proposals align to the PR24 methodology.

We assume in our plan the standard Notified Items for Relevant Causes of Change. We believe this includes the following elements as Relevant Causes of Change, and we expect they will not need Notified Items as a result of the PR24 process. We list them as potential items that could be considered later in PR24 if, unexpectedly, any uncertainty remains by Final Determinations. We also present the option for uncertainty to be dealt with through an update to our WaterShare+ framework, as part of the transparency of risk allocation and sources of performance across our plan delivery.

Changes in statutory programmes

- We have worked closely with the Environment Agency, Ofwat and Defra in order to find the appropriate phasing of investment that meets statutory requirements for AMP8. The phasing between AMP8 and future periods is set out in our Long Term Delivery Strategy. The plan we submit is consistent with our statutory requirements. Any further changes post submission of our business plan should be resolved by Final Determinations, but if there is any uncertainty at that point we believe that a notified item may then be appropriate
- This could also apply to environmental abstraction reductions that are different from the final WRMP assumptions, where there is a loss of deployable output
- One alternative should any uncertainty remain in the WINEP programme, which would reduce the likelihood
 that the notified items set out above would be required, could be to make the Price Control Deliverables we
 set out in our plan two-way, and including additional or accelerated delivery of obligations rather than just
 deferment or non-delivery. This is one option that Ofwat may wish to consider further during 2024. We set
 out below how this could alternatively be achieved through an enhanced WaterShare+ framework
- We assume that any Government changes to net zero targets to include process emissions by 2030 that required investment across a material level of our treatment assets would qualify as a Relevant Cause of Change.

Direct Procurement for Customers

• We assume in our plan that the eventual construction of Cheddar 2 Reservoir or other SRO schemes will be undertaken through DPC and therefore our plan expenditure does not include the AMP8 construction costs which will, under DPC, form part of the potential Allowed Revenue Direction (ARD) payments to the competitive appointed provider (CAP) that would commence when water is delivered from the asset, expected in 2033. We therefore assume that the standard licence condition that enables such ARD will be in place, or equivalent arrangements as identified through the RAPID gateway process. Should the construction expenditure in AMP8 ultimately not proceed through DPC arrangements then the standard Notified Item arrangements for such DPC projects are assumed to apply.

Specific uncertainty mechanisms and risk balance

These proposals align with the expectations for specific uncertainty mechanisms set out in the PR24 methodology. This introduction sets the context of our bespoke ODIs and PCD proposals, before considering the specific bespoke mechanism we propose to reflect the uncertainty on the cost and delivery of storm overflows, given the exceptional scale of this enhancement programme (c.£750m of enhancement totex).

We have considered a range of uncertainty mechanisms and summarise in this section our conclusions. Our proposals should not be considered in isolation of the overall balance of risk and return in this plan. They are consistent with the financial lever proposals we set out that deal with the main priority, which is to minimise the impact on customer bills for the large and essential enhancement programme over several future AMPs, as set out in our long term delivery strategy.

We believe that calibration of outcomes, Price Control Deliverables and the expenditure assumptions in PR24 business plans in 2024 should take the opportunity to re-consider what uncertainty mechanisms are appropriate. We have proposed a range of options for ODI incentive design, including cap, collars, deadbands and definition clarifications. As part of the approach, we have taken we have considered an alternative approach for some of the metrics of using dynamic incentives. This reflects that there is significant uncertainty in some of the ODI definitions, and alongside potential causes of ODI asymmetry such as weather impacts, we think there should be a dynamic incentive approach that creates a deadband between the common target level at PR24 and the actual median performance each year in the industry. This neutralises weather impacts, both out and underperformance and only rewards and penalises companies that fall outside of this range. This avoids fixed deadbands being set ex-ante and reduces the risk of asymmetry for customers or companies. It has the advantage over deadbands that companies do not know the precise level of performance until after year end that will earn a reward / penalty.

We also proposed in our initial submission a set of bespoke ODIs based on our "pay on delivery" customer outputs for long term outcomes, where we want flexibility for emerging customer and community needs and wants, but where we would not include the full cost in our plan. We remain disappointed that Ofwat have not taken a long-term view that outcomes from a customer perspective can contribute towards being long-term outputs. Whilst we are confident we could present sufficient evidence of our delivery plans and customer research in support of the proposals [*ICS Consulting: SBB Performance Commitment and Outcome Delivery Incentive Engagement*] and their valuation [*ICS Consulting: SBB ODI rates report*], we are not willing to risk a inadequate plan assessment based on the QAA process. We would be willing to revisit these proposals as part of the plan calibration process given:

- The Water Available for Use bespoke ODI overlaps with Price Control Deliverables and we consider the appropriate mechanism for those separately
- We accept Ofwat's position that sewer blockages has some overlaps with sewer collapses, internal and external flooding ODIs
- The "smarter healthier homes" options, whilst attractive from a customer perspective, could overlap with a wide range of ODIs. They are now inherent within our other strategies, including the lead and water efficiency programmes at PR24. We intend to cover the cost allocation of such activities through our fairer charging initiatives, providing direct choice to customers and communities, which is set out in a specific document as part of this submission.

We have maintained two areas of innovation through bespoke ODIs:

Data on embodied carbon in the water sector and appropriate methodologies are at a nascent stage. The only
practical approach uses a "spend-based" method, estimated emissions for goods and services by collecting
data on the economic value of goods and services purchased and multiplying it by the relevant secondary (e.g.
industry average) emissions factors (e.g. average emissions per monetary value of goods). Therefore, the
bespoke ODI only applies in 2029/30 at the end of the period to allow embodied carbon to be considered
alongside delivery plans (as a target based on "tonnes carbon per £1m")

A catchment management bespoke ODI based on hectares of catchment management delivered. This does
not overlap with the biodiversity ODI or statutory programme, as none of the expenditure related to this
metric is included in the final WINEP programme due to deferment of the 25 year environment plan activities
to which these related to future AMPs for new "Upstream Thinking" activities, and assumed base allocation
for the continuation of existing schemes. The ODI allows us to continue with the catchment management
activities, including farm visits, that our stakeholders expect.

Our ODI design demonstrates a symmetrical range for risk and return. We could not achieve this without the caps, collars, deadband, incentive rates and ODI definitions. Without these amendments, our risk analysis suggests that a higher cost of equity due to ODI asymmetry ("aiming up") as the CMA found at PR19 may be necessary. Given Oxera's findings on the cost of capital (Annex A) of a narrow gap between the cost of new debt and cost of equity based on recent market data and compared to previous price reviews, it is more important than even at PR19 to consider whether ODI incentives are allowing an efficient and effectively performing company to achieve the return on equity assumed, and have the opportunity to outperform to cover the additional cost to achieve this outperformance. If we had not consider a specific adjustment to expected returns. We prefer not to do this. However, the ODI design is therefore inherent to achieving the intention of the PR24 methodology based on the compelling evidence we present in support of it. We set out our sensitivity testing for ODI risk in Annex C.

We have set out a series of Price Control Deliverables in Annex E and against the individual enhancement investment cases. As part of the package of risk mitigations.

We considered whether there was a case for more in-period adjustment mechanisms, such as those that Ofgem have used at RIIO-2. We have concluded for our own plan that we wish to avoid in-period adjustments other than ODIs, consistent with Ofwat's PR24 methodology. Given the financial lever proposals we have made to minimise bill impacts, more extensive in-period adjustments and re-openers would not support affordability objectives and would not provide more certainty of delivery for our enhancement programme.

Specific Uncertainty mechanism – Storm Overflow

Our proposals include an end of period storm overflows delivery reconciliation, recognising the unusual cost uncertainty associated with this programme. This is necessary for overall plan and risk balance. Our storm overflow proposals have been subject to an exceptional amount of cost and scope scrutiny, but the nature and scale of the programme means that each of the 238 overflow sites will identify additional challenges as we visit them. Our accelerated investment proposals included a focus on storm overflows.

50% of the of the solutions will be catchment based. The mix of solutions require careful creation, ultimately is needed because of the significant differences between grey and nature based solution. The alternative would be a more flexible WINEP that allows changes during the period. Another alternative with less effective incentive properties would be a wholesale totex sharing rate specific to storm overflows which provided more protection for green rather than grey solutions, given the greater uncertainty. However, we do conclude at this stage that this approach would have better incentive properties.

Our operational delivery targets show that once capacity or a nature based solution is in place, we may have opportunities to change our local operations to reduce storm overflow and pollution risk by more than the targets currently suggest. In our plan we have assumed a challenging 20 average spills per storm overflow as being part of base expenditure, and have assumed that the expenditure incurred in this period to deliver that lower and stretching level of performance will be one-off. We have assumed as part of our storm overflow enhancement investment cases that there is a £100m (c12%) unfunded base cost allocation / enhancement efficiency challenge as part of the storm overflow programme.

We have worked with Oxera to identify enhancement efficiency models based on AMP7 APR data for storm overflows, but the scale of existing expenditure varies significantly between companies and the AMP8 programme appears to be very different to the AMP7 programme and does not give us confidence that the model provides useful information. Our own analysis of DWMP published data tables concluded that the information available (which was not published for all companies) was not necessarily consistent given the wide range of unit costs that were suggested for between categories and between companies. We consider this in our *Cost and efficiency* document.

We recognise that PCDs provide some customer protection for non or delayed delivery of storm overflows and it is also appropriate (and supported by our own customer research) to have ODIs on this area of performance. A two-way PCD would provide less one-sided risk than the options Ofwat have suggested for storm overflow PCDs. Although we propose a PCD for storm overflows based on individual scheme cost, this does not resolve the cost uncertainty / opportunity risk.

One alternative is not to have any PCDs, and to have an ex-post review of delivery for storm-overflows. This would include a one-way adjustment in terms of timing of delivery, as per the PCD proposals, alongside ex-post assessment of the solutions implemented. Where the mix of green and grey solutions varied from those originally assumed for each storm overflow, there would be independent third party scrutiny of the optioneering. This would reflect that such optioneering could generally only be on a modelled basis ahead of storm overflow delivery. There would also be ex-post benchmarking of green and grey solution based on actual schemes delivered, with cost sharing for the variance to benchmarking of the delivered cost at the PR24 wholesale cost assessment rate (50:50 assumed).

We anticipate this benchmarking would be to mean average costs based on our analysis of DWMP data but recognise Ofwat will identify the appropriate benchmark based on company PR24 business plan data. The expost adjustment would be on the basis of the same benchmark approach that Ofwat use ex ante to assess storm overflow unit cost proposals at PR24. As Ofwat have not revealed these models at this stage, it is not possible for us to define this element of this uncertainty mechanism, but the principles are justified based on the particular uncertainty we expect to be revealed by the range of PCD options Ofwat are considering. We make this proposal so further development of it can be done prior to draft determinations, should it be considered helpful to develop this option further ahead of draft determinations, given the change in circumstances since the December 2022 publication of the PR24 final methodology.

This potential approach would be end of period adjustments to the RCV, with a forecast included at PR29 and a final reconciliation of the "blind year" at PR34, or applied in 2031/32 charges, depending on the wider PR29 methodology. A review of the approach at PR24 based on company delivery forecasts may identify at this point that the mechanism could continue for future AMPs reflecting the long-term phasing of storm overflow improvements.

Storm Overflow uncertainty mechanism	Evidence
Materiality	Storm overflow costs amount to totex of £760m (£880m before targeted efficiencies).
	The potential impact is 50% of wastewater capex across AMP8.
	The cost risk associated with this programme in our cost risk analysis is therefore +£30m to -£111m.
	The RORE risk is therefore c-0.4% p.a. after 50% standard totex sharing assumption.

Efficiency of risk allocation and customer protection	The nature of the storm overflow programme means there is inevitably uncertainty as to what the eventual costs and benefits will be. We have taken aggressive efficiency assumptions in assuming that base operational improvements can deliver improvements in storm overflows, and this assumption is supported by industry modelling. Therefore, we expect our unit costs to be relatively low, although we could not undertake efficiency modelling to confirm this. Alongside the physical delivery is the balance between community need and desire for nature-based solutions, which means the long term best value solution may not be the least cost in AMP8. In these unique circumstances an end of period review provides suitable protection for both customer and company.
Cost-benefit	The level of uncertainty is sufficient to make the cost benefit of this approach preferable to the alternative of two-way Price Control Deliverables.
	The Price Control Deliverable for Storm Overflows (PCD_12 in Annex E), shows a PCD rate of £1.323m per storm overflow.
	There are a range of scheme sizes from £0.3m to £24m. The average value is £2.8m and the median £2.1m and top quartile £2.8m. Based on the distribution there is a significant skew to smaller schemes. Customers are therefore protected through the PCD appropriate.
	The company cost risk is distributed to the smaller schemes and the cost opportunity to the larger schemes, because where there is a larger concrete solution there is a greater opportunity to reduce costs with green solutions. But for smaller schemes the nature based solution carries the higher cost risk.
	Including the additional £120m of cost in the plan would have a RORE impact of c.0.5%, and increase bills by c.£6. The benefit to customers is less than the £34m risk from PCDs between the average scheme cost and PCD value if 10% of schemes with lower costs were all above average value.
	Therefore, a symmetrical end of period adjustment is likely to be cost beneficial to customers, and avoids the risk that a different balance of green and grey solutions (not funded by customers up front) were ultimately required.

WaterShare+

We recognise that the package of financial levers and uncertainty mechanisms could be more extensive than at previous price reviews, including c.20 different Price Control Deliverables. At PR14 the original WaterShare framework included a scorecard that set out how performance was shared between cost base, delivering outcomes, and other factors such as legislative changes.

The WaterShare+ approach focused on the key industry concern at PR19 of financing outperformance, and shared the benefits of this with customers, with the unique choice between a bill reduction or a stake and a say in the business. We plan to maintain this element of our plan.

As at PR19, the movements in the net interest rates against the cost of new debt is within the PR24 regulatory framework, and therefore no sharing through WaterShare+ is required. We have considered again based on the regulatory mechanisms likely to be in place whether there are any new opportunities to ensure any additional net benefits, particularly from macro-economic changes, are fairly shared with customers.

The historical outperformance on the new debt allowance at PR04 and PR09 has already been shared. We will continue to review the net financing outperformance relating to embedded debt raised in previous regulatory periods. The amount that we may be able to share will inevitably depend on the assumptions on the cost of embedded debt and its refinancing at PR24. We will maintain the principle of sharing 100% of market 'unearned' gains with customers whilst still preserving the incentives for management to efficiently raise finance and investors to appropriately bear risk in this area, and forecast a return that would be consistent with returns to 2020.

Although financing outperformance sharing may not be possible, we will have merger savings from integrating Bristol Water which will be in excess of £20m.

We will continue with the option enabling customers to own a true equity stake and say in our business, a unique mechanism. In the South West area c.1 in 14 customers have taken up this option, and we are looking to increase this to 1 in 10 over the next 5 years. This is a challenging objective, because we are not allowed promote the option in the same way we would promote service offerings or water efficiency.

We will continue to apply our wider approach to truing up risks embedded in our WaterShare mechanism, to ensure that customers do not pay for uncertainty and risk in base prices ahead of a risk manifesting.

It is important that we have transparency on the potential impact of cost and uncertainty mechanisms, alongside our wider performance. Therefore, we intend to continue with the WaterShare+ Customer Advisory Panel that has scrutinised the development of our PR24 plan, and who already act as independent conveners of the WaterShare+ quarterly public meetings to scrutinise:

- Performance delivery (ODIs, customer experience measures and WaterShare+ share take-up)
- Customer measures of experience (e.g. C-MeX)
- The impact of accelerated and delayed investment, equivalent to Price Control Deliverables (based on two-way adjustments)
- o The potential delivery and financial impact of cost delivery and cost sharing
- o Other factors the potential impact of the uncertainty mechanisms
- The benefit to customer bills from the financial lever choices we set out as part of our plan

Performance against each of these areas will be summarised as follows:

WaterShare+	Total	Customer	Shareholder	Impact on Return on Regulated Equity compared to PR24
Performance	Cumulative £m	Cumulative £m	Cumulative £m	Cumulative %
Outcome performance (net – sum of each metric)	Net ODI total	Outperformance total	Underperformance total	+/-x%
Customer measures of experience performance	Net customer measures of experience performance	Outperformance total	Underperformance total	+/-x%
Cost performance	Total expenditure variance	Customer share	Company share	+/-x%
Other factors (Price Control Deliverables)	Net total movement	Early / additional delivery	Late /reduced delivery	+/-x%

Other factors (new obligations and uncertainty mechanisms)	Total net impact	Customer share of changed requirements	Company share of changed requirements	+/-x%
Impact of financial lever choices at PR24	The reduced bill from the totex reconciliation mechanisms recovered through RCV and the impact of additional efficiency assumptions made in this plan	-£m	-£m	
Total	£m	£m	£m	+/- x%
Share				
Net costs carried forward	-£m	-£m	-£m	
WaterShare+ mechanism	>£20m	>£20m		
Bristol Water merger benefit	2220III	~120111		
Amount already shared	(£m)	(£m)		
Total	£m	£m	£m	

This retains WaterShare+, and allows for the timing of the value of the bill reduction/share offer to also consider the net position on regulatory mechanisms. The transparency on outcome, output, cost performance and uncertainty mechanisms will form part of the discussions at the WaterShare+ public meetings. Describing what we are doing about performance and delivery, including affordability measures such as Progressive Charges, link to the trigger points we have identified in our Long Term Delivery Strategy. We will use the feedback from the public meetings and the scrutiny of the WaterShare+ Customer Advisory Panel to inform any use of the uncertainty mechanisms we propose.

This framework makes it clear whether or not that the uncertainty mechanisms, if they are used, are more than the reduction to the customer bill that has arisen from the efficiency assumptions (e.g. where we have not asked customers to pay for elements of our plan we will have to innovate to deliver, or incur increased costs) and the financial lever adjustments that go outside of the PR24 methodology. We will keep this framework up to date as part of the calibration of PR24 assumptions before final determinations.

Ofwat propose to set where enhancement expenditure does not have enough outcome incentive value should there be delays to projects or where they are no longer required. This approach however does not recognise that there can be good reasons to change expenditure priorities, and we often agree this with regulators and communities during a price review period.

We would also like to consider whether this option could provide better transparency and customer protection through incorporating Price Control Deliverables. The principle of sharing unearned gains (e.g. from project deferment or swaps with other obligations) is a founding principle of WaterShare+ and this approach helps to ensure that PCDs do not penalise doing the right thing for customers and the environment, whilst we also provide transparency and adjustments for net financial impacts. We would like to convert PCDs into a flexible part of the WaterShare framework. This provides an alternative to making PCDs two way, and the challenges in calculating them in a way that provides the customer protection, without potential unintended consequences. We also consider this proposal, if accepted, would replace the storm overflow uncertainty mechanism set out above.

2027/28			
WaterShare+	TOTAL	CUSTOMER	SHAREHOLDER
PERFORMANCE	Cum. £m	Cum. £m	Cum. £m
Delivering outcomes	10	3	7
Cost efficiency	10	5	5
Other factors	(10)	(4)	(6)
Impact of financial lever choices at PR24	(5)	o	(5)
Total	5	4	1
SHARE			
Net costs carried forward	(10)	(4)	(6)
WaterShare+ Bristol Water merger and other benefits	20	20	
Amount already shared	(10)	(10)	
Total	0	6	(6)
Return on Regulated Equity			8.1%

Supporting Financial Resilience

Revenue building blocks

PAYG

The PAYG rates for SWB and BRL are shown below. No adjustments have been made to the PAYG rates, reflecting this is natural rate, only covering opex costs and ongoing infrastructure maintenance as historically done.

The only rate that is higher than PR19 is BRL Water resources, which included resilience enhancement investment which is not repeated at PR24. The other PAYG rates are lower by 10 - 35% depending on the scale and nature of the enhancement investment programme. The degree of enhancement and non-infrastructure maintenance investment also impacts the annual profile. Raw water transfers enhancement reduce water resources at the end of AMP8, and bioresources investment is higher at the start of AMP8, based on the statutory programme requirements.

PAYG rates	2025/26	2026/27	2027/28	2028/29	2029/30	2025-30	PR19
Water resources	54.90%	58.96%	51.64%	35.66%	31.14%	43.60%	78.3%
Water network plus	44.69%	46.22%	47.56%	48.39%	54.15%	48.10%	58.8%
Wastewater	34.87%	30.14%	25.62%	27.27%	27.46%	28.76%	51.9%
Bioresources	44.45%	33.81%	50.41%	54.57%	72.40%	48.70%	75.7%
BRL Water resources	78.46%	79.08%	83.48%	85.17%	85.33%	82.29%	79.5%
BRL Water network plus	51.57%	48.45%	46.03%	50.17%	49.93%	49.15%	74.0%

RCV Run-off

Overall RCV run off rates are similar to those at PR19. They are based on depreciation run off and the life of post 2020 assets. Bioresources is lower at 6.18% due to life expired assets being replaced by enhancement investment. The water network plus is above the Ofwat methodology upper limit of 4.5% - the limit is arbitrary and some are rates are below and others marginally above this rate. We prefer to take a consistent methodology to calculation from our asset registers.

RCV run-off rates Pre/post 2025	2025/26	2026/27	2027/28	2028/29	2029/30	2025- 30	PR19
Water resources	2.73%/3.52%	2.73%/3.45%	2.73%/3.43%	2.73%/3.42%	2.73%/3.41%	2.86%	2.64%
Water network plus	4.67%/3.47%	4.67%/3.47%	4.67%/3.47%	4.67%/3.47%	4.67%/3.47%	4.48%	4.69%
Wastewater	5.07%/3.89%	5.07%/3.88%	5.07%/3.87%	5.07%/3.85%	5.07%/3.84%	4.78%	5.12%
Bioresources	7.90%/4.09%	7.90%/4.08%	7.90%/4.06%	7.90%/4.05%	7.90%/4.04%	6.18%	8.54%
BRL Water resources	2.58%/3.33%	2.58%/3.29%	2.58%/3.25%	2.58%/3.22%	2.58%/3.19%	2.62%	2.37%
BRL: Water network plus	5.45%/3.84%	5.45%/3.85%	5.45%/3.86%	5.45%/3.87%	5.45%/3.86%	5.04%	5.47%

Return on RCV

The return on RCV increases in absolute terms due to a) the higher cost of capital and b) real RCV growth averaging 4.5% p.a. over AMP8. After the initial increase the return stays stable at c.22% as other the return on RCV increases on AMP8 enhancement investment.





Tax

Our tax strategy reflects the Pennon Group tax strategy. That means we:

- At all times consider the business's corporate and social responsibility in relation to its tax affairs
- Operate appropriate tax risk governance processes to ensure that the policies are applied

- Comply with our legal requirements, file all appropriate return on time and make all tax payments by the due date
- Consider all taxes as part of ongoing business decisions
- Not enter into any artificial tax arrangements or take an aggressive stance in the interpretation of tax legislation
- Engage with HMRC in a proactive and transparent way and discuss our interpretation of tax laws in realtime, such interpretations following both the letter and spirit of the laws
- Not have any connections with tax havens unless it is necessary for the purposes of trading within those jurisdictions.

We have assumed a corporation tax rate at the current rate of 25% throughout the period. The allocation to tax pools is based on an analysis on the capital plan. The allocation to different tax pools is broadly stable over time.

Financing the Plan

Our proposed financing approach is to continue our already developed and implemented sustainable financing framework, one of the first of its kind in the UK. All our debt financing requirements will be assessed under this framework which benchmarks South West Water's performance against environmental, social and governance factors alongside the cost of funding. Since implementing the framework, all of South West Water debt has been raised complying with its requirements. Sustainable financing through green, impact and social loans is a developing market, and access to this market gives South West Water increased options and flexibility.

We do not believe we will need to raise new equity to finance our plan. We prefer to retain equity, after sharing of unearned financing outperformance through the WaterShare+ framework. We believe we will be able to raise equity should we need to, but do not ask customers to fund the cost of raising new equity that was suggested In the PR24 methodology, preferring a long term sustainable dividend yield of 2%, saving customers c.£7m.

A key to financial resilience is the how the factors affecting financial resilience are managed.

Risk management of financial resilience	How the factor is managed
Revenue	Revenue controls means there is little revenue variation
	Sufficient headroom in financing for normal annual revenue variation
	Revenue variation has little impact on credit ratings and financing costs due to revenue controls.
Financing	Sustainable finance policy
	Low gearing, with recent RCV growth from inflation retained as lower gearing
	Strong track record of financing outperformance
	No equity injection required in order to maintain notional or actual financiability.
Totex	Track record of efficient base costs – our assessment is that we will have more efficient costs than the sector than upper quartile across base costs as a whole
	Enhancement costs – we have confidence our ability and the ability of our supply chain to deliver the enhancement scope and costs set out in our plan. This is set out in our
	Detailed assessment of plan totex risks behind a RORE risk range of -1.3% to +1.0%
	Demonstrated resilience during recent drought
	Operate over a number of areas with different characteristics which allows for flexibility and adaptability of operating model.

Risk management of financial resilience	How the factor is managed
Outcome Incentives	Track record of leading performance in areas of key customer service, whilst also dealing with a challenging environment and scale of assets.
	Strong evidence of customer support for balanced ODI framework of +/- 2% pa. This level of reward / penalty has been sustainable in the past.
Affordability	Track record of responding to cost of living concerns and reprofiling revenues in a sustainable and financially resilient way
	Specific measures proposed at PR24 to manage bill increases
	Achievement of zero water poverty, with sophisticated affordability and tariff modelling that now allows auto-enrolment onto social tariffs
	Detailed fairer and progressive charging proposals that ensure fairness of paying for new infrastructure capacity.
Long-term resilience	Sustainable financing structure
	Track record of additional investment in AMP7 when faced with external events
	Fair tax mark
	Innovative organisation including investment in Centre for Resilience in Environment, Water and Waste (CREWW) at University of Exeter.
Customer and community	Extensive customer and stakeholder testing in support of our PR24 plan and Long Term Delivery Strategy
experience	Catchment management and Upstream Thinking approach
	Investing in skills and apprenticeships – recognised in the top 100 apprentice employers
	Benefit being delivered from Bristol Water merger in terms of customer experience and perception track record
	Unique WaterShare+ mechanism that shares outperformance with customers, and allows them to have a say and a stake in the business.

Financial Resilience

Target credit and financial ratios

Our target credit ratings are set in order to be consistent with our sustainable financing framework. This means that delivery against ESG priorities and key metrics have a role to play as well as financial scenario analysis. These ratios allow for financing at an efficient cost of debt. They provide a strong investment grade credit rating with sufficient headroom for this not to be affected by short term shocks. They allow for investment to be maintained and for the preferred mix of debt and equity to be raised / retained. They also allow our unique WaterShare+ mechanism to be sustained.

- Maintaining gearing within 10% of Ofwat's notional gearing assumption of 55% in normal circumstances, with a higher level of up to 70% from temporary impacts (such as deflation)
- Adjusted cash interest cover of c.1.5x on the standard calculation
- FFO/net debt of at least 7%.

Notional financial ratios target and meet a strong investment grade credit rating of at least Baa1. The levels of financial ratios have been informed by our financial advisors.

For the ratings we consider published methodologies and the weighting of ratios and other factors (such as track record, the regulatory environment and financial policies) which typically are considered.

Notional financial ratios	2025- 26	2026- 27	2027- 28	2028- 29	2029- 30	Average 2025-30
Gearing	56.27%	57.54%	58.77%	59.82%	60.59%	58.74%
Interest cover	4.30	4.26	4.13	4.01	3.92	4.11
Adjusted cash interest cover	1.61	1.61	1.58	1.56	1.54	1.58
Adjusted cash interest cover (alternative calculation)	1.26	1.27	1.26	1.26	1.26	1.26
FFO/Net Debt	12.07%	11.50%	10.95%	10.54%	10.23%	10.98%
FFO/Net Debt (alternative calculation)	11.21%	10.64%	10.11%	9.71%	9.40%	10.14%
Dividend cover	3.17	4.12	3.83	3.60	3.42	3.62
RCF/Net Debt	0.10	0.10	0.09	0.09	0.09	0.09
RCF/Capex	0.64	0.58	0.54	0.57	0.60	0.58
Return on capital employed	6.66%	6.46%	6.30%	6.19%	6.10%	6.32%
Dividend yield	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
RORE	4.20%	4.34%	4.33%	4.33%	4.33%	4.31%
Target Credit Rating	Baa1	Baa1	Baa1	Baa1	Baa1	Baa1
Actual financial ratios	2025- 26	2026- 27	2027- 28	2028- 29	2029- 30	Average 2025-30
Actual financial ratios	26	27	28		30	2025-30
	26	27	28	29	30	2025-30
Gearing	26 61.90%	27 62.65%	28 63.43%	29 64.10%	30 64.57%	2025-30 63.42%
Gearing Interest cover	26 61.90% 3.86	27 62.65% 3.84	28 63.43% 3.73	29 64.10% 3.76	30 64.57% 3.66	2025-30 63.42% 3.76
Gearing Interest cover Adjusted cash interest cover Adjusted cash interest cover (alternative	26 61.90% 3.86 1.83 1.52	27 62.65% 3.84 1.85	28 63.43% 3.73 1.81 1.53	29 64.10% 3.76 1.83 1.56	30 64.57% 3.66 1.80	2025-30 63.42% 3.76 1.82
Gearing Interest cover Adjusted cash interest cover Adjusted cash interest cover (alternative calculation)	26 61.90% 3.86 1.83 1.52 10.90%	27 62.65% 3.84 1.85 1.56	28 63.43% 3.73 1.81 1.53	29 64.10% 3.76 1.83 1.56	30 64.57% 3.66 1.80 1.54	2025-30 63.42% 3.76 1.82 1.54
Gearing Interest cover Adjusted cash interest cover Adjusted cash interest cover (alternative calculation) FFO/Net Debt	26 61.90% 3.86 1.83 1.52 10.90%	27 62.65% 3.84 1.85 1.56 10.67%	28 63.43% 3.73 1.81 1.53 10.26%	29 64.10% 3.76 1.83 1.56 10.08%	30 64.57% 3.66 1.80 1.54 9.82%	2025-30 63.42% 3.76 1.82 1.54 42.27%
Gearing Interest cover Adjusted cash interest cover Adjusted cash interest cover (alternative calculation) FFO/Net Debt FFO/Net Debt (alternative calculation)	26 61.90% 3.86 1.83 1.52 10.90% 10.28%	27 62.65% 3.84 1.85 1.56 10.67% 10.03%	28 63.43% 3.73 1.81 1.53 10.26% 9.52%	29 64.10% 3.76 1.83 1.56 10.08% 9.21%	30 64.57% 3.66 1.80 1.54 9.82% 8.91%	2025-30 63.42% 3.76 1.82 1.54 42.27% 42.27%
GearingInterest coverAdjusted cash interest coverAdjusted cash interest cover (alternative calculation)FFO/Net DebtFFO/Net Debt (alternative calculation)Dividend cover	26 61.90% 3.86 1.83 1.52 10.90% 10.28% 3.24	27 62.65% 3.84 1.85 1.56 10.67% 10.03%	28 63.43% 3.73 1.81 1.53 10.26% 9.52% 3.94	29 64.10% 3.76 1.83 1.56 10.08% 9.21% 3.70	30 64.57% 3.66 1.80 1.54 9.82% 8.91% 3.48	2025-30 63.42% 3.76 1.82 1.54 42.27% 42.27% 3.73
GearingInterest coverAdjusted cash interest coverAdjusted cash interest cover (alternative calculation)FFO/Net DebtFFO/Net Debt (alternative calculation)Dividend coverRCF/Net Debt	26 61.90% 3.86 1.83 1.52 10.90% 10.28% 3.24 0.06	27 62.65% 3.84 1.85 1.56 10.67% 10.03% 4.30	28 63.43% 3.73 1.81 1.53 10.26% 9.52% 3.94 0.05	29 64.10% 3.76 1.83 1.56 10.08% 9.21% 3.70 0.05	30 64.57% 3.66 1.80 1.54 9.82% 8.91% 3.48 0.05	2025-30 63.42% 3.76 1.82 1.54 42.27% 42.27% 3.73 0.21
GearingInterest coverAdjusted cash interest coverAdjusted cash interest cover (alternative calculation)FFO/Net DebtFFO/Net Debt (alternative calculation)Dividend coverRCF/Net DebtRCF/Capex	26 61.90% 3.86 1.83 1.52 10.90% 10.28% 3.24 0.06 0.42	27 62.65% 3.84 1.85 1.56 10.67% 4.30 4.30 0.05 0.29	28 63.43% 3.73 1.81 1.53 10.26% 9.52% 3.94 0.05 0.30	29 64.10% 3.76 1.83 1.56 10.08% 9.21% 3.70 0.05 0.34	30 64.57% 3.66 1.80 1.54 9.82% 8.91% 3.48 0.05 0.37	2025-30 63.42% 3.76 1.82 1.54 42.27% 42.27% 3.73 0.21 0.34
GearingInterest coverAdjusted cash interest coverAdjusted cash interest cover (alternative calculation)FFO/Net DebtFFO/Net Debt (alternative calculation)Dividend coverRCF/Net DebtRCF/CapexReturn on capital employed	26 61.90% 3.86 1.83 1.52 10.90% 10.28% 3.24 0.06 0.42 6.92%	27 62.65% 3.84 1.85 1.56 10.67% 4.30 4.30 0.05 0.29 6.85%	28 63.43% 3.73 1.81 1.53 10.26% 9.52% 3.94 0.05 0.30 6.70%	29 64.10% 3.76 1.83 1.56 10.08% 9.21% 3.70 0.05 0.34 6.59%	30 64.57% 3.66 1.80 1.54 9.82% 8.91% 3.48 0.05 0.37 6.51%	2025-30 63.42% 3.76 1.82 1.54 42.27% 42.27% 3.73 0.21 0.34 6.70%
Financeabilty testing

Our financeability scenarios show that our plan is resilience to a range of plausible scenarios. The standard Ofwat scenarios generally show little impact, and therefore we have also considered our own combined scenarios. These scenarios directly reflect the financial resilience and risk mitigation factors set out above.

We considered testing based on both the the updated market data cost of capital of 3.74% (4.56% cost of equity 3.07% cost of debt) as at the end of July 2023 as well as the 3.29% September 2022 PR24 final methodology estimate.

The scenarios are summarised below:

Basis		Actual rating and ratio sensitivity (AICR - average / minimum)	Actual rating and ratio sensitivity (FFO/net debt- average / minimum)	Headroom to base case £m / stretch % (average)	Outcome / Mitigation actions
0	Plan Baseline	1.82 / 1.80	10.4% / 9.8%	N/A	Baa1 and stable ratio profile
A	10% totex underperformance (2% p.a.)	1.51 / 1.44	8.7% / 7.8%	£293m / 42%	Baa1 No mitigation required – Gearing increase to 72% mitigated by totex sharing
В	3% ODI underperformance (assumed 2028/29 application)	1.82 / 1.79	10.3% / 9.8%	£312m / 14%	Baa1 No mitigation required
С	Inflation of 0% each year	1.74 / 1.66	9.8% / 8.9%	£282m / -15%	Baa1 No mitigation required
D	Deflation of -1% in 2025/26 and 2026/27	1.75 / 1.72	9.8% / 9.3%	£285m / -13%	Baa1 No mitigation required
E	High Inflation: spike of 10% and 2% increase in wedge between RPI and CPIH, followed by two years of CPIH at 5% and 1% increase in wedge	2.01/ 1.95	9.9% / 9.1%	£380m / 15%	Baa1 No mitigation required
F	Increase in the level of bad debt (20%) in 2026/27 and 2027/28	1.82 / 1.79	10.3% / 8.9%	£312m / 30%	Baa1 No mitigation required

	Basis	Actual rating and ratio sensitivity (AICR - average / minimum)	Actual rating and ratio sensitivity (FFO/net debt- average / minimum)	Headroom to base case £m / stretch % (average)	Outcome / Mitigation actions
G	Debt refinanced as it matures with 2% additional new debt financing above forward projections of interest rates	1.52 / 1.48	10.9% / 10.0%	£313m / 19%	Baa1 No mitigation required
Н	Financial penalty – 6% of one year turnover in 2026/27	1.72 / 1.37	9.9% / 8.5%	£275m / 34%	Baa1 – ratios recover after one off penalty
					No mitigation required
	Combined downside operational performance scenario: 5% p.a.	1.64 / 1.59	8.7% / 7.8%		Baa1 No mitigation required, due to totex cost sharing
I	totex, 1% ODI penalties p.a., 1% revenue penalty in year 2	1.04 / 1.39	0.170 1.070	N/A	Reflects ODI asymmetry and no uncertainty mechanisms
J	Higher WACC at market rate update of 3.74%	2.20 / 2.12	12.3% / 12.2%	N/A	A3 Current market rates provide financial resilience

No mitigation is required in the scenarios listed above. Under our Sustainable Financing Framework individual instrument covenants do not constrain our financial flexibility within the tighter limitations of the financial resilience expectations of the regulatory framework, including the licence condition relating to cash lock up and Baa2 negative. We therefore use this level of credit rating for reverse stress testing, although any mitigations would apply before this point given our target rating of strong Baa1.

The scenarios demonstrate that the actual capital structure provides sufficient resilience to maintain Baa2 levels of ratios in the years where the underlying cause of the scenario stress factor applies. As ratios recover after the event, the ratio profile means that strong investment grade credit ratings of at least Baa1 are maintained. Should mitigation have been required the steps would have included.

- These initial scenarios are based on the September 2022 market rates PR24 methodology cost of capital. Our market rate updated estimate is 3.74% compared to the 3.29% assumed above, an increase in returns of 0.45% which would provide additional financial resilience. The higher share of new debt (34%) in this assumption may also be prudent and given the scale of enhancement investment a higher new debt share of c.60% indicated by our projections would provide further financial resilience. The impact on the cost of equity (4.56% on current market rates vs 4.14% in September 2022) would also benefit financial resilience scenarios, given the 2% minimum dividend yield we have adopted for this plan.
- Mitigation would be available from a reduction in dividends below the 2% dividend yield. This is particularly relevant to scenarios A, B, F, H and I where there are aspects of performance directly considered through our dividend policy.

- There are scenarios where the regulatory framework provides mitigation for scenario A there is 50% totex sharing available which would be considered as part of the mitigation. For scenario G, cost of new debt indexation would also provide suitable mitigation, and in those circumstances, ratings would not be affected by a temporary impact on credit metrics given our track record of financial resilience.
- We have proposed ODI designs that have a strong foundation in risk analysis (see Annex C) and are supported by customers. We propose totex uncertainty mechanisms that reduce totex risks (scenario I) compared to scenario J without these protections.
- Confidence in our mitigation proposals is also provided by the WaterShare+ framework. We propose
 tracking new obligations and changes in our delivery (effectively Price Control Deliverables) and considering
 sharing with customers in advance of when might be expected through the regulatory framework.
 Discussion with the WaterShare+ Customer Advisory Panel and the public meetings, alongside the
 customer share ownership option of WaterShare+ all provide transparency on delivery of obligations and
 tracking performance and cost pressures. The scrutiny and transparency of the factors affecting our
 business is a key part of our risk management framework.

The trends in ratios and delta to the base plan for each scenario are shown below:















Equity & Debt assumptions

Financing our plan assumes we retain equity in terms of our dividend strategy, and raise principally debt and also equity as appropriate through the Pennon Group Sustainable Financing Framework. The Sustainable Financing Framework is in alignment with the ICMA Green Bond Principles (GBP), Social Bond Principles (SBP), LMA Green Loan Principles (GLP), LMA Social Loan Principles (SLP), Sustainability Linked Loan Principles (SLP) and the Sustainability Linked Bond Principles (SLBP). Under the Framework, Pennon Group can issue securities as well as enter into financing relationships to support investment across the Group's activities. is aligned to our Environmental, Social and Governance (ESG) strategy which provides an integrated approach to managing the business's goals. The Framework provides the ability to raise the finance required to support our objectives and long term priorities.

The financing includes, but is not be limited to:

- Committed Bank Facilities
- Green, Social and Sustainable Bonds
- Sustainability Linked Bonds
- Private Placements
- Long Funding Finance Leases
- Facilities to support the Group's prefunding requirement.

In addition to the funding secured for the sustainable growth of the business, the Group maintains a level of prefunding through Revolving Credit Facilities (RCFs). The Group aims to secure this prefunding through sustainable financing and will develop a portfolio of green RCFs or sustainability linked loans to support the investments. The Group's prefunding requirement will look to support the Group's ESG objectives with Key Performance Indicators (KPIs) set to achieve these objectives. These KPIs will focus on South West Water's objectives as set out in the latest price review and at a Group level these will look to reflect the whole business including the water business objectives or through an Environmental, Social and Governance (ESG) index issued by an independent ratings organisation.

The split may vary, but the plan assumes a mix of new debt with ratios varying depending on the financing tranches assumed in the plan, driven by pre-financing of new investment and refinancing of existing debt as it is due.



Transparent and clear policies

Dividend Policy

Our dividend policy is aligned with Ofwat's principles and the licence. Dividends will be calculated to take account of delivery of the plan with the overarching principles that the dividend will:

- Not impair the ability of the Company to finance the appointed business
- Take account of services delivery for customers and the environment over time
- Reward efficiency and the effective management of risks to the appointed business
- Be transparent.

South West Water has a well established dividend policy which involves the following components:

- Base dividends derived from the price determination and are made with reference to Ofwat's assessment for a notional balance sheet and paid in the year
- Outperformance dividends linked to business performance and outcomes delivered ahead of business plan commitments (totex, ODIs and financing), paid a year in arrears
- Other dividends payments designed to ensure that key financial ratios are optimised, and gearing remains aligned with Ofwat's notional level, which has historically been set in the range of 55-65% (draft 55% for K8) and does not exceed 70% gearing.

All dividend payments will be approved by the Board annually. Dividend payments will consider the Company's statutory and licence obligations to ensure key financial ratios are not prejudiced, that customer, environmental and other stakeholders are considered, and that the Company has adequate resources to carry out its work now, and into the future.

Dividend payments are designed to ensure that key financial ratios are not prejudiced, whilst also taking into account balance sheet considerations. Payments are also designed to ensure that the ability of the appointed business to finance its activities is not impaired. This dividend policy has been assessed and is supported by our independent WaterShare+ Customer Advisory Panel. Actual dividends are calculated with reference to the projection with the Final Determination and outperformance dividends are directly linked to the delivery of the plan through the return on regulated equity (RORE). Outperformance dividends are paid in arrears to ensure only actual and not forecast outperformance is paid.

In line with Ofwat's proposals for the cost of capital, our plan assumes a 2.0% dividend yield with a 0% real growth rate, reflecting that the real RCV growth rate is greater than 2%, in line with the Ofwat PR24 methodology under the notional capital structures. This compares to a c.3% yield and a real growth rate of c.1% assumed at PR19. The level of base yield chosen, balances the recognition of likely growth in real RCV versus a being able to attract new equity investment if required ahead of or during the PR24 regulatory period. This level of yield is at the lower end of Ofwat's guidance. The base dividend will be adjusted to reflect the dividend yield and growth rates assumed in the final determination.

The outturn dividend yield can be greater or less than the base dividend and depends on the following:

- Whether the company has delivered on its commitments to customers
- The level of out and underperformance against the regulatory allowances including ODIs, totex and financing
- Whether obligations to pension schemes have been met
- The level of financial resilience to ensure the long term viability of the appointed business. Based on the factors already considered within the financial viability testing.

2020-25 Dividends

Throughout this regulatory period South West Water has ensured that dividend payments are aligned with the returns due to investors/shareholders.

Forecast outturn prices	2020/21 – 2022/23	2025/26	2026/27	2027/28	2028/29	2029/30
	£m	£m	£m	£m	£m	£m
Base dividends	136.3	50.6	53.8	57.7	61.7	65.6
Dividend yield	3.2%*	2.0%	2.0%	2.0%	2.0%	2.0%

* average over three years

Base dividend return

The level of base dividend was informed by the final determination for PR19 in which Ofwat viewed a base dividend yield of up to 4% as being reasonable for companies that have little real RCV growth and that perform in line with the determination during 2020- 25. The table above shows the calculation of base dividend and below that the rationale demonstrating that these two tests were met. SWB Board agreed a base dividend of 3% of 2019/20 closing equity RCV with annual growth of CPIH + 1.18% and adjusted for inflation.

SWB believes that the tests shown above were met in the regulatory period to date.

Long term financial resilience is underpinned by the work undertaken to give the Board the ability to state that in its opinion SWB could obtain a credit issuer rating at least that of investment grade.

In addition, the long term viability assessment carried out to support the Company's viability statements published in the APR support our long term resilience assessment. The level of growth in the asset base and measures of long term financial resilience therefore appear consistent with the assumptions described in the final determination as supporting the base dividend assumption.

Performing in line with the determination for 2020-25

The Board considers that there is substantial evidence that the company's overall performance is broadly in line with the final determination, including the obligations and commitments embedded within South West Water's business plan and set out in the final determination for K7. Evidence supporting this view and of the Company's delivery for customers includes the following:

- SWB met or exceeded targets for 80% of its performance commitments in 2020/21 and 2021/22 with c.70% of
 performance commitments met in 2022/23.
- Return on regulated equity a key measure of performance has exceeded the final determination allowances in 2022/23 and on a cumulative basis to date
- Outperformance has allowed resilience against shocks e.g. volatile energy prices arising from wider macroeconomic factors and has enabled reinvestment in emerging priorities such as addressing storm overflows through our WaterFit programme.

Outperformance

Other dividend payments in excess of the base dividend are reflective of current or past outperformance versus the final determination. This outperformance can arise for a number of reasons including cost savings, strong ODI performance, outperformance of financing assumptions or a combination of these. The Board considers whether outperformance should be reflected in dividend payments each year, but payable a year in arrears to ensure that the outperformance element is based on robust, audited data and not on estimates.

Executive Pay Policy

Background

We recognise that customer trust can be damaged when executive bonuses are not perceived to be aligned to water company performance. Our executive remuneration strategy has always been set against a number of key principles:

	 Simple and transparent – clear for all stakeholders to understand
✓ A	ligned with strategy, delivering our business plan – clear alignment with stretching goals, and delivering for customers, communities and the environment
	Long-term stewardship – encourage management to have long-term mindset and act as long-term custodians
	 ✓ Agile – able to respond to evolving priorities of the business, customers and the regulator
	✓ Overall performance – scope to consider overall performance and apply judgement where necessary
	Safeguards against payments for failure – appropriate use of underpins, and malus and clawback provisions
~	Fairness – fair levels of pay commensurate with performance of business, and skills and experience of employees
V	Aligned with best practice – reflects evolving trends for listed companies and corporate governance guidelines

For our last business plan, the South West Water remuneration arrangements were reviewed to ensure clear alignment to the interests of customers, and to align with Ofwat's Board Leadership, transparency and governance principles.

Key changes introduced included re-structuring of the annual incentive arrangement to reflect 70% of the bonus was related to customer (50%) and environmental (20%) measures. The financial measures were reduced to 30%.

Additionally, to ensure rounded performance across all aspects of performance, an underpin was introduced requiring 90% of all ODIs to be achieved for any bonus to be payable against the operational and customer measures.

Finally, we committed to ensuring remuneration out turns were reviewed with the Watershare+ Advisory Panel ensuring that our customers could have a stake and a say in outcomes.

For Financial Year 2023/24 the structure evolved to increase the customer weighting to 55%, 15% weighting against net zero and responsible business targets such as H&S, and a 30% weighting on financial.

SWB Executives are also eligible to participate in the long-term incentive scheme, designed to further encourage stewardship over a longer period, with a three-year horizon and a further 2 year holding period. Awards for 2020-2023 were structured around three measures of equal weighting; RORE, C-Mex and sustainable dividends.

For the 2023 award, to strengthen the focus on environmental outcomes, and in recognition of regulatory and public sentiment, we adjusted targets so that 50% is now directly attributable to reducing the use of storm overflows, a reduction in pollution incidents, EPA rating and customer experience, as well as increasing the population who benefit from WaterShare+. The sustainable dividend measure has been removed.

Proposed approach

For remuneration arrangements for Financial Year 2024/25 and beyond, we propose going further, in aligning arrangements to the things that matter most to customers and as a socially responsible business. The proposals, that we wish to engage with stakeholders on, are detailed below and some early soundings have been taken from the WaterShare Customer Advisory Panel.

- Expanding the remit of the independent customer WaterShare Customer Advisory Panel to vote on South West Water Executive Pay
- Aligning 70% of annual bonus arrangements for South West Water executives to ensure they are remunerated for tackling the biggest issues head on, and the four priority areas in our plan covering water quality and resilience, storm overflows and pollution, Net Zero and environmental gains, affordability and delivering for customers. 30% will remain on financials.
- Aligning the annual bonus arrangements for all employees in South West Water to the same four priority areas and in ensuring the whole organisation is aligned to delivering for customers and communities.
- Encouraging more of our employees to become shareholders in our company and to have a stake and a say in the company through HMRC approved share schemes, and building alignment with our approach to customer engagement through WaterShare+.
- We currently anticipate reducing the overall maximum long-term incentive opportunities by 50%, and therefore the amount that executives can earn in their variable pay by replacing our current long-term incentive scheme with a restricted stock plan with a focus on the long-term health of the business. Under this restricted stock plan, participants earn awards subject to continued employment and build holdings in the Company, with appropriate safeguards in place to enable awards to be reduced if specified performance underpins are not met. The value to these awards will ultimately vary based on the share price and therefore remain linked to the overall performance of the business.

Key benefits of this approach

- Long-term stewardship we operate within a long-term industry with major capital investment and performance, this de-geared pay model encourages a more long-term mindset and focus on enduring value creation.
- More holistic approach appropriate given the scale of change across our industry. Allows business to remain agile and be able to adapt to evolving priorities and focus on performance for our customers, communities and the environment, as opposed to delivery against fixed objectives in three-year cycles.
- Maintains Annual Bonus scorecard pay continues to be strongly linked to performance in the year and holds management to account.
- **Reduction in maximum headline pay levels** this approach would deliver lower headline pay levels.

Pennon Group Arrangements

Executive Directors of Pennon Group who are also Executive Directors of South West Water Ltd have a portion of their remuneration funded by the Group's water businesses (70%) with 30% reflecting their responsibilities to the Group's other business interests. This ensures that customers do not fund activities that they don't directly benefit from.

In FY23, and in direct response to stakeholder and customer feedback and regulator input, a revised Remuneration Policy was put to shareholders strengthening the link with customer and environmental outcomes in both the annual bonus and long-term incentive plan. This included increasing the weighting on the annual bonus for customer & environmental measures to 60% and the financials reduced from 50% to 40%. In addition, the LTIP measures were refocused to be 50% RORE and 50% customer and environmental outcomes. In addition, given the cost-of-living crisis, the Group CEO recommended to the Remuneration Committee that she should forgo her Financial Year 2022/23 bonus and the vesting her 2020 LTIP award. Instead, an equivalent amount has been diverted to a future issuance under the WaterShare+ scheme. In prior years, the Remuneration Committee has also exercised negative discretion on incentive outcomes on multiple occasions.

As a FTSE-listed company, executive pay at Pennon is subject to a different governance regime to South West Water and other privately owned companies in the sector. Listed companies are also subject to a more comprehensive set of best practice guidance. The Remuneration Committee of Pennon is currently minded to implement a similar restricted stock plan for Pennon executives, which would reduce their overall maximum incentive pay. However, this change would be subject to appropriate shareholder engagement in the coming months and approval at the 2024 AGM.

Annual bonus awards will continue to be subject to stretching performance delivery with a significant weighting towards metrics linked to customers, communities and the environment. Outcomes will also continue to be subject to assessment of broader performance, with awards partly deferred into shares. As noted above any restricted stock award would be subject to a safeguard performance underpin and would only be released after five years. In line with best practice, malus and clawback provisions would apply to all incentive arrangements operated for senior executives.

Overall governance

All schemes are approved and governed by the Remuneration Committee, using well established discretion frameworks, to consider the overall experience of stakeholders, customers, financial resilience, reputational issues and safety.

In addition, Executive Directors are expected to comply with the Group's shareholding policy, to ensure alignment of personal and professional interests and reflects a significant personal investment in the long-term stewardship of the Group.

The full Remuneration Policy and outcomes are disclosed within the Annual Report and Accounts and the Annual Performance Reports, with detailed annual targets and performance for the annual incentive reported retrospectively. As a listed company the operation of our pay arrangements is subject to annual approval by our shareholders, with shareholders additionally asked to approve the Remuneration Policy at least once every three years.

Wider Workforce Remuneration

Across the Group, we operate a reward strategy to support delivery of the business plan.

Our focus is to ensure that our total reward position remains relevant to the new generation of employees as well as our valuable long serving colleagues and continues to drive performance against our business plan commitments and longer-term business plans.

The Reward Strategy focuses on four pillars which build to the employee's Total Reward Package:



Base Pay

As only one of 13,000 Living Wage employers in the UK, we ensure that everyone who works for us gets paid fairly for the work they do, and to ensure that pay meets every day needs.

Variable Pay

We believe everyone who works for us, should have the opportunity to contribute towards the success of the Group, and to be rewarded for their contribution through bonus arrangements.

Saving for the Future

Just as we do for customers, we want employees to have a stake and a say in our business, and to save for the future. We operate HMRC approved all-employee ShareSave schemes and comprehensive pension scheme arrangements.

Benefits

Our benefits are designed to support employees in well-being, financial awareness and support as well as growing the partnerships with communities, schools, volunteering days, discounts and family friendly policies. We also offer peace of mind through income protection and life assurance and the opportunity to have a career path underpinned to professional and vocational development.

Price Control Deliverables (PCDs)

We have developed Price Control Deliverables in 18 groups, tested using thresholds of 1% and 0.5% of relevant totex. We have not deducted the value of outcome Incentives from our Price Control Delivery adjustment rates, given the ODI protections we have included in our plan and that most of our ODIs are appropriate as scheme delivery outputs, rather than outcomes.

We do not believe it appropriate to include outcome based PCDs without this being reflected in the RORE range. The PCDs we have assumed within our proposals are therefore largely based on the delivery of the specific enhancement schemes. This approach avoids a further value risk being necessary within the RORE risk framework. Many of these schemes have been proportionately allocated between base and enhancement and affect multiple enhancement categories and ODIs.

We believe that most of these PCDs will operate as one-way adjustments for delayed schemes, but should there be a good case for two-way adjustments because of agreed changes with regualtors or stakeholders, this should be considered at PR24.

We also propose that we track PCDs and other notified items through the WaterShare+ framework, and if there is a net benefit to be shared with customers early on these items, this is taken into account at PR29.

The PCDs we propose are set out in Annex E.

Direct Procurement for Customer (DPC)

Our assessment of potential DPC schemes is included in our Cost and Efficiency document.

The first Approved Revenue Direction payment anticipated to a Competitively Appointed Provider to deliver strategic water resource schemes under DPC is anticipated from 2035.

Merger with Bristol Water

We confirm that we have met the requirements of our undertaking to the CMA. We removed the PR19 Company Specific Adjustment from 2023/24 tariffs. We are on target to achieve merger savings of £20m p.a. by 2025 with an enduring benefit into AMP8.

Ofwat's Quality and Ambition Assessment (QAA)

The table below summarises how we have addressed the QAA criteria and sign-posts where these are detailed with this document.

The assessment for business plan assurance is included in the 'Data, Information and Assurance' supporting document.

Assessment	Test areas	Expectations	Summary of how we meet these expectations	Document Reference
QA3.1: Quality	Customer affordability and acceptability	The company's business plan and long-term delivery strategy demonstrates that its proposals are likely to be fair and affordable for both current and future customers.	For risk and return, we set out the cost efficiency and timing of when costs recognised in revenues (PAYG and RCV run off) from the perspective of intergenerational fairness. We make specific proposals for PR19 reconciliation mechanisms that goes beyond the PR24 methodology in considering intergenerational fairness.	Evidence in this document
QA6.1: Quality	Risk and return	The business plan uses our early view of the allowed return on capital or provides compelling evidence that another rate is more appropriate.	We use Ofwat's early view on the allowed return on capital, for the purpose of core financial modelling. We provide evidence that more recent markets result in a higher allowed return on capital, which we use as a scenario for testing financing. We also demonstrate that alternative cost of capital assumptions are required to achieve a balance of risk and return – this information is provided to inform decisions on calibration of returns and incentives during 2024, as there is sufficient and compelling evidence to justify reconsidering aspects of the PR24 methodology because of changes in the business and regulatory environment.	Evidence in this document
QA6.2: Quality	Risk and return	The company's submission provides sufficient and convincing evidence that the overall business plan provides an appropriate balance of risk and return.	We present a package of assumptions and incentive approaches that will be necessary to provide an appropriate balance of risk and return.	Evidence in this document
QA6.3: Quality	Risk and return	If the company's business plan includes bespoke uncertainty mechanisms and notified items then these meet the expectations we have set out in our methodology.	We present proposals for a bespoke uncertainty mechanism for Storm Overflows, and a preference for this adjustment and other PCDs to be considered through the WaterShare+ framework prior to regulatory consideration at PR29	Evidence in this document
QA6.4: Quality	Risk and return	The company's Board provides assurance that its business plan is financeable on the basis of the notional structure and this is supported by sufficient and convincing evidence of the steps taken to provide this assurance.	Our plan is financeable on the basis of the notional structure.	Evidence in this document
QA6.5: Quality	Risk and return	The business plan uses appropriate cost recovery rates and provides sufficient and convincing evidence for any adjustments to underlying PAYG and RCV run-off rates.	We include as at previous reviews the infrastructure maintenance expenditure (at a level that is consistent over time) within our natural PAYG rate. The RCV run-off rates are supported by asset life analysis. We balance our plan with including totex reconciliation in the RCV rather than partly through PAYG.	Evidence in this document

Assessment	Test areas	Expectations	Summary of how we meet these expectations	Document Reference
QA6.6 Quality	Risk and return	The company's Board has provided assurance that it will maintain financial resilience during 2025-30 and in the long-term, taking account of its business plan under its financing and capital structure. We expect also this is supported by sufficient and convincing evidence of the steps taken to provide this assurance and of the steps to improve financial resilience where necessary.	The Board have provided this assurance on the basis of the estimate of an updated cost of capital for more recent market data. We show the impact of both in this commentary.	Evidence in this documentand in Board Assurance statement
QA6.7: Quality	Risk and return	The business plan sets out the company's dividend policy for 2025-30 and the policy is in line with our guidance.	We set out our dividend policy in this document	Evidence in this document
QA6.8: Quality	Risk and return	The business plan sets out the company's policy for performance related executive pay during 2025-30 and the policy is in line with our guidance and Board leadership, transparency and governance principles.	We set out our executive remuneration policy in this document	Evidence in this document

Assurance

All of our company data is subject to extensive process checks, which include both internal and external assurance.

Board scrutiny and challenge and Executive review and development

The Board has reviewed and scrutinised South West Water's plan and assumptions underlying the assessment that it is financeable and has considered the financeability in a range of scenarios as well as reverse engineering of scenarios which may challenge the financeability of the plan.

Risk and Return aspects of the plan, including both financeability and financial resilience have utilised our financial ongoing modelling and specific modelling for the PR24 process and has been overseen by the Chief Financial Officer. The process undertaken has built on our robust approach to annual assessments of financial viability, which are also overseen by the Chief Financial Officer.

This has ensured our ongoing financial planning, including long term strategic financial planning is also consistent with the development of our PR24 plan.

Three line approach to assurance

All data submissions are subject to an enhanced compliance procedure which builds upon the three lined approach of the long-established Integrated Assurance Framework, including those in respect of PR24.

Data and applicable methodology are subject to 'in the line' reviews by the nominated senior manager reviewer and accountable Director. These checks will include aspects such as the extent to which the methodology complies with the relevant guidance, the source of data used in calculations and judgements and assumptions applied.

Primary third-party financial assurance provider

For PR24, South West Water has appointed KPMG as its main external financial assurance provider. This appointment has been made following assessment of relevant experience and performance, for example when fulfilling a similar role at PR19.

South West Water has considered potential conflict of interest considerations in this appointment. KPMG do not create any significant conflict of interest issues – as they are not our statutory accounts auditors (EY) nor the lead Ofwat advisor for reviewing business plans.

KPMG's scope has included risk and return data tables as well as assurance over financeability of the plan including sensitivity analysis as well as financial viability.

South West Water's Integrated Assurance Framework Elements Utilised

1st Line	2nd Line	3rd Line
PR24 Steering Group	Internal review of scenarios considered	Assurance over financeability of plan
 Programme Office control 	in respect of financeability	including sensitivity analysis by external financial assurance specialists (KPMG)
 Internal review and sign-off of all data tables (including cost and outcome related tables) 		
 Established long-term internal financial modelling, including risk impact quantification and scenario planning 		

Third Party Credentials

ICS Consulting

ICS Consulting was established in 2000 and specialises in providing consultancy and support services to infrastructure businesses and regulators in the UK, Europe and Middle East.

Their expertise covers:

- Customer and stakeholder engagement
- Regulatory economics, covering policy analysis and development
- Economics analysis, including assessing monetary benefits of investment and cost-benefit analysis
- Investment appraisal and optimisation, covering the design and implementation of bespoke asset management systems.

ICS is highly experienced in all aspects of the regulatory and business planning processes in the water industry and supports a number of key periodic review activities, namely:

- Customer research (priorities, willingness to pay, acceptability testing)
- Regulatory analyses (outcomes and incentives design, tariff formulation)
- Investment optimisation and business plan development (cost benefit analyses, scenario planning, business case development)
- Risk assessment (risk appraisal and assessment).

Oxera

Oxera is a leading independent economics consultancy. They advise companies, policymakers, regulators and lawyers on any economic issue connected with competition, finance or regulation. They have been doing this for more than three decades, gathering deep and wide-ranging knowledge as they expand into new sectors. They have a reputation for credibility and integrity among those they advise, and among key decision-makers, such as policymakers, regulators and courts. Today they have offices in Oxford, Berlin, Brussels, London and Rome and are able to advise international clients in a highly flexible way, including providing advice in several other languages.

KPMG

KPMG is a leading provider of professional services, including audit and advisory solutions integrating innovative approaches and deep expertise to deliver real results. They have extensive water industry experience.

They have worked with South West Water over a number of years. Their team has a unique combination of financial analysis skills, combined with regulatory finance and corporate finance expertise; with experience of advising on financial structuring, financial strategy and financial resilience.

Annexes

- A: Analysis of Cost of Capital
- **B: Customer perspectives on risk and return**
- **C: RORE Scenario assessments**
- D: Building blocks of our plan
- **E: Price Control Deliverables**

Annex A: Analysis of the cost of capital

We updated our estimates of the cost of capital based on market data up to the end of July 2023. Oxera produced a report for us [Cost of capital for PR24: Final report for South West Water: 25 August 2023] which informed our market rate update and, alongside our risk assessment, our view of the potential cost of capital that may be necessary depending on plan review and calibration during 2024. Key points arising from this process are:

For the purposes of our business plan we have used the Ofwat PR24 methodology Weighted Average Cost of Capital (WACC) of 3.29% (appointee real CPIH terms).

We recognise that Ofwat will update this early estimate for changes in market data and new information during 2024. We estimate that the cost of capital based on market data up to 31 July 2023 is 3.74% based on analysis from Oxera within their Final report for us on the cost of capital for PR24. This is used for sensitivity testing on financeability in our PR24 plan, as discussed with Ofwat. This reflects that market data may further change during 2024, but is appropriate for financeability scenarios and Board assurance on financial resilience alongside the rest of our risk and return package.

Oxera has produced a report which challenges elements of Ofwat's PR24 cost of capital methodology – they suggest a mid-point estimate for the cost of capital of 3.97%, 5.17% cost of equity and 2.99% cost of debt. This is based on a 17% new to embedded debt ratio which is likely to be an underestimate – our estimate of 34% (based on expectations of higher enhancement expenditure across the sector at PR24) increases their cost of capital to 4.07%, with a cost of debt of 3.18%.

Key points raised by Oxera are:

- Oxera include a "convenience premium" based on the return on AAA corporate bonds in their calculation of the risk-free rate (as did the CMA at PR19)
- There is a slight increase in equity beta by including Pennon in the sample alongside United Utilities and Severn Trent. The Pennon beta has not converged since it became a "pure-play" water utility and therefore the full range of Pennon beta values can be used across the estimation window
- A higher total market return using revised historical CPIH data. This has a mid point of 7.2%, higher than the c6.5% used by Ofwat and other recent regulator determinations
- Oxera have updated the embedded debt following APR2023 data and see a higher rate at 2.65% rather than the 2.34% Ofwat used
- On the cost of new debt Oxera do not find evidence for a 15bps outperformance of the iBoxx benchmark applied by Ofwat which the CMA rejected at PR19, and also differ from Ofwat in applying a 10bps forward premium adjustment
- Oxera test the premium between equity and debt risk in the cost of capital, and used the need for the cost of equity to be higher than the cost of new debt to truncate their lower end range for the cost of equity, with their range for the appointee WACC being from 3.74% to 4.20%
- Some elements of Oxera's methodology do not align to Ofwat's methodology, in particular the estimate for the total market return. Having looked at the incentive risk in our plan, we have taken our own view of what cost of capital may be appropriate when considering our business plan proposals and understanding of systemic risk facing the water sector
- The higher cost of capital is due to an increasing risk-free rate, which has a small impact on the cost of capital (as in line with Ofwat's methodology we keep the nominal total market return constant) but a larger impact on the cost of new debt. We also for this scenario believe with a larger industry enhancement programme, the new to embedded debt ratio will be higher than the 17% initially assumed, and estimate this to be 34%.

Due to our sustainable financing framework combined with recent inflation our debt/RCV gearing ratio has reduced in recent years to 60.8% in 2022/23. It is therefore realistic for us to adopt Ofwat's notional gearing assumption of 55% for PR24. This has been supported by the retention of equity given recent inflation.

Although we have used Ofwat's indicative cost of capital, we do not believe the methodology set out by Ofwat will provide sufficient cost of equity in order to attract necessary future investment.

The cost of new debt has now increased to close to and potentially above the cost of equity that is being allowed (with rising interest rates). This is not consistent with the logic of CAPM. This indicates that the cost of equity is being set too low. Ofwat stated that they would use Market to Asset ratios as a cross check on the cost of equity, but with recent falling share prices it is possible that an MAR cross-check could imply a higher cost of equity than Ofwat's methodology implies.

As we demonstrate below, the risk in the regulatory framework logically suggests a higher cost of equity, which is constrained by the PR24 cost of capital methodology. Oxera demonstrate a range of assumptions that allow this to be reflected. Whilst we agree with Ofwat that asymmetry in the incentives framework should be avoided through incentives design, and make a range of proposals to achieve this, this cost of equity would provide some recognition of this risk. Although the CMA at PR19 allowed a 0.25% uplift in the cost of equity to reflect ODI asymmetry, and our analysis suggests this remains justified, our preference is to resolve this asymmetry at source in the ODI design. This is supported in our outcome incentives customer research in preference to the CMAs solution. The compelling evidence from out risk testing and customer research supports an incentive design that avoids the necessity to "aim up" on the cost of equity.

Gearing

Due to our sustainable financing framework our debt/RCV gearing ratio has reduced in recent years to 60.7% in 2022/23 (South West Water), 61.9% combined with the Bristol Water control. It is therefore realistic for us to adopt Ofwat's notional gearing assumption of 55% for PR24. This has been supported by the retention of equity given recent additional inflation on the RCV.

2022/23		Combined gearing			
£m	SWB	BRL	Combined		
Net debt	2,429.01	445.089	2,874.099		
Equity	1,572.903	199.601	1,772.504		
RCV	4,001.913	644.69	4,646.603		
Gearing	60.7%	69.0%	61.9%		

Total market return

We believe there is a narrower range for the total market return (TMR) than Ofwat assumed in the PR24 final methodology. Ofwat's assumption of 6% to 6.92% (with a mid point of 6.46%) is broadly in line with other recent regulatory determinations (e.g. 6.50% from Ofgem in the December 2022 Riio ED2). However, a higher estimate above the top end of this range (7%) can be obtained as the long-term arithmetical average, is using the new CPIH backcast data set from the ONS.

The low end of 6% appears to be too low, for instance the CMA at PR19 found a range of 6.15% to 7.46% (and used a central estimate of 6.81%), and Ofwat used a 6.25% to 6.75% at PR19. With a central range of 6.25% to 7.00%, a central estimate of 6.62% is likely to be appropriate.

This is a minor difference to Ofwat's 6.46% central estimate, but reflects a narrower range of historical approaches. Since December 2022 there has been a significant reduction in the share prices of the listed water companies. Ofwat's methodology intended to use Market to Asset Ratios as a forward-looking cross check on the TMR at PR24. The listed company share prices have fallen since December 2022, which provides an indication of higher required returns, given the increased risk industry faces. This does not directly affect the total market return, but a combination of using the new CPIH backcast data set, and applying more weight to expost data, using the upper bounds for instance in the overall ex-ante and ex-post estimates produces a higher TMR.

The two KPMG reports provided on behalf of Water UK ('Use of market to asset ratios as a cross-check in the context of regulatory price controls' – September 2022, and 'Exploring multi-factor models as a cross-check on allowed returns at PR24' – November 2022), provide additional useful information in support of higher assumptions on the cost of equity.

For the use of MARs, KPMG find that although MARs have the benefit of relying on publicly available data, they note significant limitations of MARs and specific problems with using and interpreting this data to inform regulatory determinations of the allowed returns. In the circumstance when it is relied on, as a sense check, for regulatory determinations, it was associated with lacking precision, likely biases, and the risks of wrong interpretation based on unsupported hidden premises and assumptions. If we ignore this and accept that there is some role for MARs in indicating market reactions to the regulatory framework and the potential cost of equity, there is clear indication from market reaction since December 2022 that a higher cost of equity to attract necessary equity investment given the challenges of PR24 may be necessary.

The KPMG report on MARs noted that decomposing the average observed MAR indicated that the underlying regulatory MAR varies from 0.88 to 1.30 for SVT and from 0.74 to 1.18 for UU. Share prices have fallen since then, without this being reflected in higher observed equity betas since then.

The second KPMG report highlighted that multi-factor models as a cross-check on allowed returns could be informative compared to other approaches such as MARs. They found that this cross-check suggested there could be a higher cost of equity for regulated for March 2022 of 0.39% to 0.52%, compared to the CAPM midpoint. This data appeared sensitive to when the data was being looked at, and therefore may need to be updated in 2024 to provide a cross-check to the PR24 final cost of equity. However, it does support the potential for some of the methodology elements at PR24 to be reconsidered based on current market data, given the market data from share prices over the last 12 months.

We have followed the Ofwat methodology and UKRN guidance approach of keeping the Total Market Return constant – deducting the risk free rate estimate to obtain the Equity Risk Premium.

Risk free rate

We have followed Ofwat's PR24 approach to estimating the Risk Free Rate – which only considers RPI linked gilts and does not use a forward premium. There is a significant risk that the risk free rate will continue to rise. Ofwat should therefore consider whether a forward rate assumption based on market expectations Is appropriate based on evidence in summer 2024. However we agree that it will probably not be necessary to include such an assumption for the cost of new debt given the ex post adjustment proposed to the cost of new debt to reflect movements in the risk free rate.

We think there will be a strong case to reflect, as the CMA did at PR19, the evidence of the existence of a convenience yield in the returns of gilts, and estimates the RfR as an average between the yield on AAA corporate bonds and the yield on gilts, in line with the CMA's PR19 approach.

In terms of forecasting the risk free rate, Ofwat assume the rates implied by forward rates for 15-year index linked gilt yields, and assume a profile that removes the RPI-CPIH wedge but for AMP8 cost of capital this averages out at 0.40%.

Taking the Ofwat methodology and updating it from the spot forward rates at the end of October 2022 to those in July 2023 suggests an increase in the CPIH real risk free rate from 0.47% to 1.54%.

We have considered an alternative approach suggested by Oxera [Cost of Capital for PR24: Final report for South West Water, 25 August 2023] that:

- a) Forecasts the implied forward rates for 20-year index linked gilt yields 1.04%
- b) Does not include a forward rate premium
- c) Inflation is based on 20-year CPI forecasts to be consistent with the 20-year nominal gilt yields used, with a RPI-CPI wedge over 20 years calculated by Oxera at 0.44%
- d) The value of the risk-free rate is adjusted to account for the existence of the convenience yield in the government bonds by considering the historical spread between the yield on AAA corporate bond indices (1.8%) and the yield on gilts (1.48%), an average of 1.64%
- e) Oxera have also calculated a 5 year forward premium of 0.11% by comparing 5 and 25 year gilt yields.

Equity beta

Oxera present evidence that Pennon beta has moved by a similar magnitude to Severn Trent and United Utilities over time. As there does not appear to have been any convergence with the sale of Viridor and then post-acquisition of Bristol Water, this indicates that Pennon beta data can be used across the estimation windows of two, five and ten years.

Oxera identify an equity beta in the range of 0.59 to 0.66, noting that the lower end of this range is the minimum required to deliver a sufficiently high premium on equity relative to debt returns. Ofwat's early methodology assumption is towards the lower end of this range at 0.62, and we maintain this view based on the evidence within the Oxera report of 0.62 - 0.63 as a central point estimate.

Total market return (TMR)

Oxera find a range for the TMR of 6.96% to 7.39% using arithmetic averages for both CPIH backcast inflation and RPI inflation using the RPI-CPIH wedge, with a point estimate of 7.2%. Oxera suggest that there is sufficient evidence to use a 0.5% range around the point estimate, with a TMR from 6.7% to 7.7%.

We note that other regulatory determinations in recent times have found TMR within a range of 6.5% - 7.0%. Given increasing risks to equity, we believe an assumption near the top of this rang at 6.95% would provide some recognition of higher TMR (and cost of equity) than in recent regulatory determinations.

Cost of Debt

Ofwat estimated a 2.35% embedded cost of debt within the PR24 methodology document. As part of our market rate update, Oxera updated this estimate using the Ofwat published Cost of Embedded Debt model as of 31 July 2023. This produced a higher cost of embedded debt of 2.65%, due to increased SONIA and floating rate debt costs. We do not use the methodological difference of 0.04% identified by Oxera for junior debt and swaps.

KPMG are producing a report for Water UK to develop an estimate for the cost of embedded debt based on company business plans, latest market data and 2023 APRs. It is expected that this analysis will be submitted to Ofwat in November 2023. The emerging findings suggest a number of refinements to the estimate of the industry embedded cost of debt. Some of the emerging evidence in this report highlights that:

- KPMG identify that additional debt financing to capture RCV growth over the remainder of AMP7 should be included in the cost of debt
- Ofwat assume that debt maturing in AMP7 will be refinanced at the AMP8 cost of new debt assumption less a 15bps benchmark adjustment. Both the CMA at PR19 and Oxera's assessment do not find evidence for the 15bps benchmark adjustment for water sector financing outperformance
- KPMG identify that amortisation and accretion of principal balances should extend beyond the end of AMP7 and into AMP8
- The Ofwat CoD model multiplies interest rates by the end of year debt balance. This means that instruments that mature in a year have a zero interest cost in their final year of maturity. This risks distorting the cost of embedded debt.

• The estimate for the embedded cost of debt, before updating for 2023 APR data, is 2.5% to 2.59%.

Together the Oxera estimate and KPMG emerging findings suggest that the cost of embedded debt is likely to be 2.5% - 2.7% CPIH real.

Cost of new debt

Oxera have estimated the cost of new debt using the Ofwat PR24 methodology report and the iBoxx indices up to 31 July 2023 at 3.74%.

Oxera provide evidence that recent water company issuances are broadly in line with the iBoxx indices and therefore no 15bps outperformance wedge should be deducted. This is consistent with the approach taken by the CMA at PR19.

For the purposes of financial resilience testing only, we have included a cost of new debt of 3.59%, reflecting the updated market rates less the 15bps outperformance wedge in the Ofwat PR24 methodology. Ofwat should keep under review the evidence for the outperformance wedge and based on the Oxera and CMA positions do not believe this adjustment should apply.

Oxera also calculate evidence of a 0.11% forward premium on for the cost of debt by comparing the difference between nominal and real gilt yields against 2% long term CPIH inflation. We do not adopt this adjustment for the purposes of the market data update as it does not align to the Ofwat final methodology. Ofwat should consider the evidence for a forward rate premium based on the Oxera methodology during 2024.

Comparison of risk premia on equity and debt

We identified in responding to the Ofwat draft PR24 methodology a concern that the cost of capital methodology used resulted in very little difference between the cost of new debt and the cost of equity. Given the cost of new debt is linked to market benchmarks, and that risk to equity must be higher than risk to debt given the priority claims that debt-holders ahead of equity investors over a company's assets, this provides a clear indication of error in the cost of equity estimation.

	Oxera low ¹	Oxera high1	Ofwat PR24	Updated	Ofwat PR194	CMA PD105	Ofwat PR09	
	Oxer a tow	Oxereinigh		fwat PR24 ³	of water kitz	OWACTATI OWAPATI		
RfR, CPIH real	1.74%	1.74%	0.47%	1.54%	-1.39%	-1.34%	2.00%	
TMR, CPIH real	6.70%	7.70%	6.46%	6.46%	6.50%	6.81%	7.40%	
Asset beta	0.30	0.35	0.33	0.33	0.36	0.33	0.40	
ARP	1.49%	2.09%	1.98%	1.64%	2.84%	2.78%	2.16%	
CoND, nominal	5.92%	5.92%	5.34%	5.82%	2.54%	2.19%	5.70%	
RfR, nominal	4.75%	4.75%	3.71%	4.55%	1.10%	0.86%	4.19%	
Expected loss	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	
DRP	0.87%	0.87%	1.33%	0.97%	1.14%	1.04%	1.21%	
ARP-DRP	0.62%	1.23%	0.65%	0.67%	1.70%	1.75%	0.95%	

Oxera have developed a methodology that considers the Asset Risk Premium (ARP) against the Debt Risk premium (DRP), as a cross check on the cost of equity. Oxera demonstrate in their report that the PR24 ARP-DRP differential is significantly lower than at PR19.

The main reason identified for this is the assumption of the fixed TMR as interest rates risk, which narrows the risk premium in equity compared to the risk premium in debt. This supports the conclusion that a higher TMR and cost of equity may be required at PR24 in order to attract and retain equity investment given the risks faced.

Oxera suggest that there is a lower bound on the ARP of 1.58%, reflecting the DRP of 0.87% divided by notional gearing of 55%. Oxera find that to maintain this difference between ARP and DRP, requires an increase in asset beta from 0.30 to 0.32 (an equity beta of 0.59).

Annex B: Customer perspectives on risk and return

Customers care about the balance of future investment and affordability.

We have engaged customers further as we have looked to understand the affordability of bills today, and how that changes with our proposed plan. We have also discussed other elements that drive bills, such as incentives around the outcomes, and to what extent we should profile bills across the years and generations.

Our priorities research shows that customers are willing to see an investment programme suitably paced to achieve supporting a steady programme of investment, this is preferable to front or back-end programmes. However, the cost of living crisis is impacting on customer affordability and whilst investment in the environment is required, bill increases need to be reasonable.⁴

Affordability concerns continue to weigh heavily on customers in the SWB region and there is some evidence that suggests this view has been exacerbated more recently by the cost of living crisis. For instance:

- Willingness to pay for a 'package' of service investments was reduced in 2022 (£6.90) relative to earlier PR19 research (£9.20)
- The most recent priorities research suggests that, while customers agree investment in the environment is required, there is a steep decline in household customers' willingness to pay above a £50 bill increase with 58% of customers willing to pay a bill increase of £50, but 34% of customers willing to pay a bill increase of £100
- SWB's annual affordability study for 2022/23 finds that, while customers continue to find their water bill affordable despite the increased cost of living (83% state that their bill is affordable), the percentage of customers who sometimes struggle to pay their water bill has increased from 10% in 2021/22 to 14% in 2022/23.

We have reflected this by:

- Going as far as we can to reduce the size of the enhancement investment programme we had extensive discussions to ensure that the investment we are making aligns to the priorities of the Government and the Environment Agency, and any additional investment to this timing is of better value for the economy and communities of the region
- Made significant efficiency assumptions of c£600m (£300m base, £300m enhancement) without reducing the services customers will receive
- Used financial levers to minimise the bill impact on customers including relevant reconciliation adjustments in the RCV rather than through PAYG, where the benefit to customers from the reconciliation is over a period of time.

Qualitative testing for the Affordability & Acceptability Testing (AAT) found that most customer preferred accelerating investment, and bill increases would then reflect intergenerational equity. Using financial levers for investment already made is consistent with maintaining customer support with this approach.

⁴ Report 1.7 - Verve, PR24 Customer Priorities, February 2023

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Source: AAT Qualitative Report: Blue Marble Research

Customers retain their appetite for contributing to social tariffs



Source: 3.14 Social Tariff Report, DJS Research, June 2023

Customers in the AAT quantitative survey supported performance improvements, but the cost of living crisis made many consumers more price sensitive. Their Willingness to Pay for improvements had not declined, but efficiencies and other ways of reducing the bill were welcomed. There was a balance to be struck between large efficiency savings that we had in mind, with the credibility that they could be delivered and the positive contribution investment could make to the region.



Source: Quantitative AAT Additional research report Blue Marble, September 2023

We describe our extensive customer research on outcomes and incentive design in the Outcomes document and on outcomes risk and return later in this document.

Annex C: RORE scenario analysis

We set out below each separate component of our overall RORE scenario analysis



Totex / Cost risk

Efficiency assumption cost risks are described in the efficiency section earlier in this paper.

For frontier shift we assume a variation of +/-0.5% around our central estimate of 0.5%. This aligns to the estimate from the

Economic Insight report [Productivity and Frontier Shift at PR24 - 5 April 2023]. For the purposes of our totex risk assessment, we assume that labour and energy costs are subject to an uncertainty mechanism including indexation. Without this mitigation we would need to assume a wider impact on totex.

For real price effects, the our totex analysis is based on the following ranges:

% cost change p.a.	Low	Central	High
Energy	+3.5%	0% – average profile of future cost changes.	-3.5%
Labour	-0.7%	0%	+2%
Chemicals	-0.2%	0%	+2%
Materials	-0.2%	0%	+1.5%
Other	-2%	0%	+2%

The KPMG report for a number of water companies [Real price effects at PR24 – June 2023] highlighted a number of factors that could affect real price effects at PR24 compared to PR19:

There may be greater volatility in the weighting between different cost components, because of both the macroeconomic environment and the significant increase in the enhancement programme.

Economic shocks, particularly to supply chain and manufacturing experienced in 2020-2025 make cost changes (and frontier efficiency estimates) harder to interpret.

The frontier shift should be lower than the 1% used at PR24, in part because the potential for labour and energy efficiencies (which we estimate at 48.6% of industry costs, and may be higher with recent energy price increases - our table SUP11) are partly reflected in indexation. This is one reasons (alongside the Economic Insight evidence) of why we assume 0.5% frontier shift at PR24.

For labour costs, KPMG find an average wedge of 1.3% over 2003 – 2020, but a lower wedge in recent years. We assume 1% for AMP8, but we assume a true-up reduces the range of risk uncertainty. The uncertainty in energy, and the related chemical and material costs also exist, but we consider energy cost indexation (with a lower frontier shift) is the appropriate risk balance in the regulatory framework that appropriately protects both customers and investors with the degree to which costs are within management control rather than subject to wider external factors.

We have assessed the cost risk associated with the costs we have included in our business plan – this considers:

- Our estimate of botex efficiency from the Ofwat models, compared to our bottom up efficiency calculation in our plans. This includes the range of uncertainty e.g. from cost model consultation responses and other company symmetrical cost adjustment claims
- Real price effects our decision not to include the evidence for an assumption of 1% above CPIH real growth in labour costs over 2025-30, and the range set out in table x above.
- Frontier shift the range of 0.1% to 0.9% around our central estimate of 0.5% p.a, recognising our approach of not Including likely RPEs
- The £300m of base and £300m of enhancement efficiencies assumed in our plan.

The deliverability assessment of our business plan (set out in the Deliverability document which is an annex to our Cost and Efficiency document) and the cost and scope confidence which informed our enhancement scheme investment cases. For enhancement we used a robust assessment framework with a benchmark of 3.5/5 as a baseline cost assessment - each one deviation from the benchmark results is estimated as a 5% cost risk / opportunity.

For each cost element we have considered:

- Our assumption of the probability that the cost opportunity for outperformance and the cost risk of totex underperformance risk will occur
- The cost mitigation or uncertainty mechanism that relates to this risk
- The benefit of a 50% assumed totex sharing rate (for wholesale costs).

This results of this assessment is summarised in the table below:

Cost Item	Plan Base	Upside Risk	Downside Risk	Upside probability	Downside Probability	Mitigation	Post mitigation upside	Post mitigatio n downside
Real price effects & Frontier shift								
Base opex	£1719m	-£60m	+£113m	100%	25%	Labour and energy cost index (50%)	-£30m	+£14m
Enhancement opex	£52m	-£2m	+£3m	25%	25%	Labour and energy cost index (50%)	-£0m	+£0m
Base capex	£1006m	-£35m	+£66m	25%	25%	Labour and energy cost index (50%)	-£4m	+£8m
Enhancement capex	£1846m	-£63m	+£121m	25%	25%	Labour and energy cost index (50%)	-£16m	+£30m
Frontier Shift	£4623m	-£48m	+£16m	75%	25%	Labour and energy cost index (50%)	-£24m	+£8m
Total RPE & Frontier Shift		-£207m	+£319m				-£74m	+£61m
RORE %			Pre mitigation	+1.02%	-0.72%	Post mitigation	+0.57%	-0.47%
Base cost efficiency models	£2725m	-£308m	+£117m	20%	20%	N/A	-£62m	+£23m
RORE %			Pre mitigation	+0.48%	-0.18%	Post mitigation	+0.48%	-0.18%
Specific base cost risks								
Areas with cost below AMP7 run rate			+£65m		10%	N/A		£7m
Areas of planned base spend not assumed that customer fund (not in plan) ⁵		-£180m	+£498m	25%	25%	N/A	-£34m	+£123m

⁵ Network valve maintenance £10m, Leakage mains replacements (base length) £109m, WQ contacts £4m, DWI transformation £51m., Wastewater networks maintenance need offset by potential benefit from storm overflows £151m, Plymouth central STW rebuild multi AMP programme £63m, STW growth £31m, IT systems ageing offset with enhancement £35m, Net zero e.g. electric vehicle one off upgrade cost £31m, Facilities - assuming lab upgrade offset by future Income growth £13m

Cost Item	Plan Base	Upside Risk	Downside Risk	Upside probability	Downside Probability	Mitigation	Post mitigation upside	Post mitigatio n downside
RORE %			Pre mitigation	+0.40%	-1.20%	Post mitigation	+0.40%	-1.20%
Enhancement risks								
Lead - change in programme scale		-£20m	+£26m	10%	10%	PCD	-£2m	+£3m
WRMP - licence capping uncertainty		-	+£60m	-	10%	Notified item	-	
Leakage - investment assumed in base		-	+£32m	-	25%	-	-	+£8m
Water quality contacts investment - mains replacement from maintenance		-£53m	+£100m	25%	25%	PCD	-	-
Water metering - AMI cost risk		-£6m	+£9m	25%	25%	PCD	-£2m	+£2m
Water WINEP		-£10m	+£66m	10%	10%		-£1m	+£17m
DWI WQ programme		-£84m	+£195m	50-100%	50-100%		-£49m	+£125m
Nutrient WINEP - scheme scope and cost confidence		-£60m	+£123m	50%	50%	Notified item	-£8m	-
Storm overflows - nature vs grey solution		-£30m	+£111m	50%	50%	Bespoke uncertainty mechanism	-	-
Net zero enhancement and process emissions		-	+£150m	-	50%		-	+£75m
RNAGS - WINEP includes WISER expectation without rephasing		-	+£309m	-	10%		-	£31m

Cost Item	Plan Base	Upside Risk	Downside Risk	Upside probability	Downside Probability	Mitigation	Post mitigation upside	Post mitigatio n downside
Supply schemes and interconnectors		-	+£15m	-	100%	PCD	-	+£15m
Bioresources (costing confidence)		-£2m	-	100%	-	-	-£2m	-
River water quality monitors		-	+£4m	-	100%	-	-	+£4m
RORE %			Pre mitigation	+1.10%	+3.32%	Post mitigation	+0.49%	+2.17%
RORE% - Total totex risk before 50% cost sharing			Pre mitigation	+3.03%	+5.41%	Post mitigation	+1.96%	+4.02%
Total totex risk post 50% wholesale cost sharing			-£456m	+£1091m	Various	Various	-£126m	+£262m
RORE%			Pre mitigation	+1.5%	-2.7%	Post mitigation	+1.0%	-2.0%

In summary, our total totex risk is +1.5% to -2.7%, which is outside of the P10:P90 range set out in the Ofwat methodology of +1.3% to -1.2%. With the mitigation proposals we set out this document, this reduces to a range of +1.0% to -2.0%.

Whilst this is still skewed towards underperformance, this reflects that our assessment of base costs appears to be overall below our forecast of the cost model allowances set out in the cost and efficiency document. This amounts to a range of +£117m to -£308m. Applying a 20% probability range reduces this to +£23m to -£62m equivalent to -0.2% to +0.82% RORE. Therefore, for our overall RORE range, if the base efficiency models are as set out, we deduct our beyond upper quartile efficiency position from the calculated post-mitigation RORE totex downside risk and arrive at an overall totex risk assessment of +1.0% to -1.2%. This requires the cost model adjustments, cost adjustment claims and cost mitigations set out in our plan to apply to arrive at this balanced notional totex risk.

We have excluded from the RORE ranges the impact of Price Control Deliverables. This is correct if there are two-way adjustments made to timing, where the statutory regulatory programme results in some changes in deliverables that are brought forward, offset by others that are deferred. This natural variation in delivery is agreed with the Environment Agency and the DWI, to reflect changing circumstances which includes the impact on the water, land and marine environment from factors that are outside of water company responsibility. Therefore, we propose in our plan that Price Control Deliverables act as two-way adjustments, as part of our risk mitigation proposals. If PCDs remain one-way, then this increases the totex risk of delivery and also results in an additional PCD RORE risk category. Given our proposals, we have not evaluated this risk. We have attempted to undertake the same type of efficiency assessment for the enhancement programme as our base expenditure programme – the results of our cost assessment work is set out in our cost and efficiency document. In general, we have not found initial data published by companies on WRMP and DWMP, or data from APRs and other data Ofwat have collected over 2020-2023 as providing a significant estimate of the efficiency or otherwise of enhancement costs. Where this data has been available and analysed, it suggests that are cost estimates are median/average or better. The limits of these unit cost comparisons mean it has not been possible to assess against a reliable upper quartile estimate as we have done given the maturity of the base cost efficiency models. In our cost and efficiency section for enhancement costs, we have assessed this against median costs because of the uncertainty of the enhancement modelling given the significant increase in the scale of the enhancement programme.

The analysis above is split into the price controls in Table RR30 and shows the pre and post mitigation elements. All of the uncertainty mechanisms relate to totex expenditure – we do not show the 50% cost sharing rate as a specific uncertainty mechanism – that is applied to the individual probability adjusted totex risks. The additional control set out above is Bristol Water wholesale. The individual entries are before the impact of the uncertainty mechanisms, which have the opposite sign to show their mitigating impact.

Line Description		DPs					Average	
			2025-26	2026-27	2027-28	2028-29	2029-30	2025-30
	_							
Totex scenarios - high case								
Wholesale water costs - high case	£m	3	14.682	16.409	17.273	20.728	17.273	17.273
Wholesale wastewater costs - high case	£m	3	8.668	12.136	13.292	12.136	11.558	11.558
Retail costs - high case	£m	3	3.321	3.505	3.690	3.874	4.059	3.690
Bioresources costs - high case	£m	3	3.057	4.280	4.688	4.280	4.076	4.076
Additional control costs - high case	£m	3	5.623	5.935	6.248	6.560	6.872	6.248
Totex scenarios - high case ~ total	£m	3	35.352	42.266	45.190	47.578	43.839	42.845
	_							
Totex scenarios - low case								
Wholesale water costs - low case	£m	3	-18.781	-20.991	-22.096	-26.515	-22.096	-22.096
Wholesale wastewater costs - low case	£m	3	-13.082	-18.315	-20.059	-18.315	-17.443	-17.443
Retail costs - low case	£m	3	-1.766	-1.864	-1.962	-2.060	-2.158	-1.962
Bioresources costs - low case	£m	3	-1.226	-1.716	-1.880	-1.716	-1.635	-1.635
Additional control costs - low case	£m	3	-6.538	-6.901	-7.265	-7.628	-7.991	-7.265
Totex scenarios - low case ~ total		3	-41.394	-49.788	-53.262	-56.234	-51.323	-50.400
RoRE - high case								
Totex RoRE - high case	%	2	1.55%	1.78%	1.81%	1.81%	1.60%	1.71%
RoRE - low case								
Totex RoRE - low case	%	2	-1.81%	-2.09%	-2.13%	-2.14%	-1.88%	-2.01%
Impact of proposed uncertainty mechanisms								
Uncertainty mechanisms - high case	£m	3	-14.537	-17.440	-18.640	-19.891	-17.954	-17.693
Uncertainty mechanisms - low case		3	16.476	19.916	21.314	22.578	20.419	20.140
RoRE - impact of proposed uncertainty mechanisms								
RoRE impact of proposed uncertainty mechanisms - high case	%	2	-0.64%	-0.73%	-0.75%	-0.76%	-0.66%	-0.71%
RoRE impact of proposed uncertainty mechanisms - low case	%	2	0.72%	0.84%	0.85%	0.86%	0.75%	0.80%

ODI Risk

We have considered ODI risk carefully, and our ODI design is set out in our Outcomes document.

We noted the starting point for the sector that the existing PR19 framework has been challenging for companies, with no companies appearing to outperform on the common ODIs in 2022/23. In the context of the PR24 methodology, seeking stretching performance from efficient base expenditure, whilst symmetrical incentives, our testing of ODI risk alongside totex risk is an important part of the risk and return balance.



We do not look at ODI risk out of the context of totex risk. For enhancement expenditure in particular, the nature of the AMP8 and beyond programme is very different to AMP7, and therefore we have had to consider what are the risks faced from the perspective of our own business plan.

Our analysis of both totex and outcome incentives, including our "what base buys" analysis linking together service and incentive performance, means we have confidence that our plan has been robustly tested against available industry data, and is efficient across all service areas.

Delivery from base and enhancement costs

The degree to which further service improvements can be delivered from base costs / the impact of past enhancement costs on performance are important considerations for the PR24 risk and return framework. The degree to which efficiently performing companies showed further improvements from this base cost continuing was a feature of discussion of the PR19 redetermination for Bristol Water at the CMA. The conclusions was that for high performing companies on leakage, there was an additional base cost allowance for maintaining this high level of performance – the service-cost relationship. The evidence at the time for other performance was weaker, and whilst the company specific evidence of past enhancement performance was recognised as a factor for differences in base cost at different service levels, this was not evident enough to require adjustment to base cost allowances.

Ofwat recognised in the PR24 methodology the importance of understanding what performance derives from base expenditure and whether enhancement expenditure.

We provided Ofwat with a comprehensive submission on the impact of historical expenditure on performance trends on 24 February 2023 [BRL and SWW_PIBE_final.pdf]. We confirm that although this analysis was up to 2021/22 data, an additional year of data would not change the findings or our assessment. In conclusion we found that both base and enhancement expenditure, optimised together, bring improvements in performance, with base expenditure chiefly required to prevent deterioration to current services for exogenous risks to a water or wastewater network such as climate change. Specifically:

- Supply interruptions is largely driven by base expenditure, with some benefit from bespoke supply resilience schemes
- Leakage reductions are largely driven by enhancement for SWB and BRL
- Reductions in customer contacts from water quality includes substantial benefits from enhancement expenditure historically (c70%), from targeted mains relining/replacement and water treatment works quality schemes
- Pollution and flooding has largely come from enhancement investment.

This analysis broadly aligns with Ofwat's view set out in IN23/07 "Assessing the influence of enhancement expenditure on historical performance trends for PR24", but as we set out below we have identified a novel and compelling analytical approach to support the use of this for PR24 and beyond. Our analytical response, whilst company specific, provides good evidence of asset management maturity as set out in AMMA. This approach underpins our scope and cost confidence analysis summarised under the totex risk section, and our efficiency assessment of both base and enhancement proposals. This sits alongside our top down outcome incentives research and ODI analysis in providing comprehensive support for the balance of risk and return that we propose.

We confirm that our analysis identifies that leakage, PCC and customer contacts on water quality are all affected by enhancement expenditure, and this enhancement expenditure is the reason why customer contacts on water quality should not be considered a common performance level at PR24. Whilst our individual investment cases include splits of base and enhancement expenditure throughout, and this is informed by our own base asset management performance trends, in this section we set out the notional industry information that we used as a cross check, consistent with our view that our costs represent the upper quartile level of efficiency, or at least median where insufficient benchmarking information is available at this stage to assess enhancement costs.

We have worked with Oxera to produce a new methodology and tool that could explore this important topic further. We discussed an early draft of this work with Ofwat in May 2023 and have developed the approach further subsequently. It has informed both the outcome proposals that we present in this plan and the totex and outcome RORE ranges. The Oxera report [Proposed methodology of what base buys in terms of Service Quality – September 2023] provides a comprehensive methodology and supporting evidence tool. Our approach:

- Determines the baseline performance level that efficient companies are expected to achieve by 2024/25 (as 'year 0'). We test the evidence that industry median or benchmark performance is appropriate, including testing the impact of past enhancement performance. This is expected to be based on common or company specific PC levels (PCLs, for 2024/25.
- Forecasting the performance level based on what base buys, based on the service level improvements that the notional efficient company's base cost has historically bought. For our approach here, consider forecasts based on the performance level improvements achieved by either the efficient (upper-quartile) base cost company, or the industry median depending on the metric and whether there is evidence that enhancement spend historically has an impact.

A key risk from this framework is that the analysis may not sufficiently account for the impact of enhancement spend in driving historical service level improvements. The "What Base Buys" ("WBB") approach also assumes that the service level performance (and improvements) obtained by efficient base cost companies are representative of what should be obtained by the rest of the industry, without consideration of the characteristics of these companies and potential trade-offs made between costs and service performance.

Theoretically, the notional base cost benchmark company's performance improvement due to base spend should be representative of what the rest of the industry could achieve, if the industry were also operating at efficient levels. This follows from the fact that the base cost benchmark companies set the efficient base cost level allowance for the industry. If base buys service improvements, one would thus expect there to be a performance improvement trend for base cost benchmark companies over time.

In practice, there are important limitations to using a base cost benchmark in also determining efficient service levels (and improvement therein). Most notably:

- Base versus enhancement spend impact. The most important shortcoming of simply considering historical performance trends of the base cost benchmark is that it does not consider the relative impact of base and enhancement spend in driving any service level improvements. We developed an approach to ameliorate this shortcoming, at least at the industry average level. However, the relative impact of base/enhancement spend may still vary between benchmark and other companies, depending on how far they are from the frontier on a given PC. We are conscious of the need to avoid the "portfolio risk" we set out in Appendix 2 to our response to the PR24 methodology consultation of selecting performance improvement targets that are backwards looking trends metric by metric, that no notional individual company can achieve in the future.
- **Determining the appropriate benchmark**. It is not necessarily the case that the base cost benchmark companies are also an appropriate benchmark on service performance. This is because the base cost models do not include enhancement costs and do not include service performance measures. As a result,
 - those companies that are efficient on base costs are not necessarily the same companies that are efficient on the enhancement areas that relate to the specific PC areas.
 - those companies that are identified as efficient on these enhancement areas are often identified by application of a median benchmark. For example, we note that the choice of the benchmark (UQ or median) significantly alters the results.
 - there is no reason why a company could not form part of the base cost benchmark, but also have generally worse and/or deteriorating service performance trends (for example, by making a costservice trade-off). For example, we note that the inclusion of TMS into the wastewater benchmark would significantly alter the results of our analysis.
- Other exogenous drivers of performance. Unlike the econometric cost benchmarking models, the WBB methodology does not account for the exogenous drivers of performance. For example, the water base cost benchmark consists mostly of small-scale companies (AFW, PRT and SSC). If there are economies or diseconomies of scale on certain common water PC areas. Similarly, leakage is driven by
- there were groups of companies in its leakage enhancement and base considerations, including Bristol Water in a select "low cost, high performance" category, supported by the Isle Utilities report that we reference in our PR24 symmetrical cost adjustment claim on the same basis.
- Improvements in performance are not necessarily achieved through a linear increase in costs. The cost of
 maintaining and/or improving high levels of service quality (or outperformance) may entail higher marginal
 costs per unit of service quality. This concern was also raised by the Competition and Markets Authority's
 (CMA) in the PR19 redetermination, where the CMA found that, at least on leakage, an additional cost
 allowance should be provided where service performance is over and above what is suggested by the UQ
 PC performance levels.

Whilst we thus still base our analysis primarily on benchmark performance trends, we weight these results against the industry average performance and PC-specific considerations. On those metrics where Ofwat recognises that enhancement spend has had an impact on historical performance levels (leakage, PCC and water quality contacts), we base our assessment on the industry (and not benchmark) trend. For other measures where company responses indicate that enhancement has bought service levels performance (though not explicitly recognised by Ofwat), we give equal weighting to the benchmark and industry performance.

With regards to the impact of enhancement spend on performance, the Oxera analysis applies an indicative uplift to actual historical performance based on the average 'counterfactual' performance without enhancement spend. This thorough analysis suggests that enhancement spend is also a significant performance driver for mains repairs, storm overflows, pollution, and serious pollution incidents.

An example of the output of the Oxera analysis is shown below:



This example for internal sewer flooding, shows a clear downward trend for both the cost efficient benchmark companies and the industry (with the benchmark consistently performing better than industry). As such, base cost allowances do appear to buy an improvement in internal sewer flooding incidents. Extrapolating the trend to 2030 is problematic as there is no exogenous variable declining in the cost models which shows that this improved performance is derived from a constant level of base costs – as our response to the base cost model consultation suggested, there is a rising trend in industry base costs including for wastewater. The industry trends are above the PR24 common target of 1.34, but the benchmark performance trend of 1.4 is a reasonable performance target. In our plan we have set a stretch 2030 performance target of 0.8 consistent with the benchmark cost evidence.

Oxera's analysis suggests that excluding enhancement may mean that there is no performance trend, and in our case we do not attribute PR24 enhancement cases to a reduction in internal flooding. Therefore, this demonstrates how the target is consistent with base costs, stretching performance commitments and a balance of risk and return. We discuss the incentives element of ODIs further below.

		Industry	Base UQ
Improvement trend	Base and enhancement	Yes	Yes
	Base only counterfactual	No	No
2025 target on track	Base and enhancement	No	Yes
	Base only counterfactual	No	No

There are other metrics where we demonstrate that base does not buy performance improvement, such as with supply interruptions. Recent benchmark performance is above the common PR19 target, and whilst we conclude that some performance improvement is appropriate from base expenditure, the ODI design and definition requires protection from third party and weather impacts to protect customer interests.



The overall conclusion is that, whilst there is an improvement in performance to be expected from base expenditure, using historical base expenditure without a performance trend will lead to underfunding. Even where there is some performance trend to be extrapolated, this does not in many cases match existing 2025 target expected at PR19. This is consistent with the ODI and totex underperformance we identified from AMP7 APRs to date. Whilst it is appropriate to set stretching performance targets, this cannot be done without ODI design and incentive rate calibration.

	Service area / common PC		Ilts summary	Base / Enhancement	
	Benchmark company results	Historical improvement trend	2025 Target aligned with historical trend	Ofwat view	Company view
1	Water	(yes/no)	(yes/no)	(B) / (B+E)	(B) / (B+E)
	Data avaiable				
1.1	Leakage	yes	no	B+E	B+E
	Above, without enhancement (company view uplift) Above, without enhancement (modelled)	yes yes	no no	B	B
12	Mains repairs	yes	no	B	B+E
	Above, without enhancement (sensititvity)	no	no	N/A	В
1.3	Per capita Consumption	no	no	B+E	B+E
	Above, without enhancement	no	no	В	В
1.4	Business Demand (not normalised)	yes	N/A	В	В
	Above, with suggested normalisation (Ofwat proxy PCL)	yes	N/A	В	В
	Above, with suggested normalisation (wdbb prediction)	yes	N/A	В	В
1.5	Water Supply Interruptions	no	no	B+E	B+E
	Above, without enhancement (sensitivity)	no	no	N/A	В
1.6	Unplanned outages	yes	yes	В	В
1.7	Water quality contacts (PR19 definition)	yes	yes (for company specific, historic PCL) no (new common proxy PCL suggested)	B+E	B+E
	Above, without enhancement	no	no	В	В
1.8	Compliance Risk Index	no	no (but deadband)	B+E	B+E
	Above, WBB trends	no	N/A	B+E	B+E
	Above, without enhancement (sensitivity)	no	N/A	N/A (legislated)	В
1.9	Not part of Ofwat Historical PC dataset GHG emissions (water)				
2	Waste				
	Data avaiable				
2.1	Sewer collapses	yes	yes	B+E	B+E
	Bathing water quality	yes	yes	E	N/A
2.3	Storm overflows	yes	yes	B	B+E
24	Above, without enhancement (assumption-based sens.)	yes	no	N/A	B
2.4	Pollution Incidents Above, without enhancement (sensititvity)	yes	no no	B N/A	B+E B
2.5	Internal Sewer Flooding	yes yes	no	B+E	B+E
2.0	Above, without enhancement	no	no	N/A (in Base models)	B
2.6	External Sewer Flooding	yes	N/A	B+E	B+E
	Above, without enhancement (sensitivity, alternative forecast approach)	yes	N/A	N/A (in Base models)	В
2.7	Discharge Compliance (waste)	yes	no (but hist.deadband)	B+E	B+E
	Above, WBB trends (and 2025 deadband target)	yes	yes	B+E	B+E
	Above, without enhancement	yes	no	N/A (legislated)	В
	Not part of Ofwat Historical PC dataset				
	River water quality (Phosphorous) GHG emmissions (waste)			E	
3	Water & waste				
	Data avaiable				
3.1	Serious pollution incidents (not normalised)	yes	no	N/A (Ofwat set ex ante)	B+E
	Above, wdbb suggested normalisation (for Waste)	yes	no	N/A (Ofwat set ex ante)	B+E
	Above, without enhancement (alternative forecast approach)	yes	no		В

Outcome incentives

We have used the Oxera "What Base Buys" analysis to not only inform our outcome incentives stretch from base and enhancement expenditure, but also to consider whether base and enhancement expenditure should be funded by customers, or represents part of the actions we are taking to get our performance on track. Some of this, common with the rest of the water sector, is driven by the targets that were part of PR19 which were "stretch" assumptions rather than linked to specific base or enhancement expenditure. For both SWB and BRL plans, the plans reflected customer priorities and the incentive design had specific customer research in support of it.
As part of our contribution to the Ofwat PR24 "Future Ideas Lab"⁶, we set out simplified approach to setting ODI incentives top down. This was based on research that both SWB and BRL carried out at PR19, recognising that the PR24 methodology was seeking greater consistency in ODI incentive rates. Throughout the PR24 methodology discussions we consistently raised two related issues:

- We disagreed with the removal of setting incentives based on an economic value principle of marginal costs = marginal benefits. We retained the view that WTP stated preference research that allowed trade offs, supported by high quality acceptability testing on alternative plans and futures, was the best way of using customer evidence to develop high quality and customer responsive business plans.
- If we were to set common ODIs with common incentive rates, centralised customer research based on compensation was unlikely to produce meaningful results. Bottom-up stated preference WTP results could be triangulated with specific top down ODI research.

Ofwat's attempt to produce top down customer research did not provide meaningful results, and even if it did the translation of the customer valuation through to individual outcome incentives was likely to be a fruitless exercise without some measures of changes in risk in order to calculate a marginal benefit value. The attempts to translate the collaborative customer research not surprisingly did not produce useful results.

We welcome Ofwat's recognition of the limitation of the collaborative research approach when it was applied in practice to ODI rates. The alternative of triangulating incentive rates as a percentage of RORE into High, Medium and Low categories includes more subjective judgement than we believe appropriate. As part of our plan we always intended to develop the research approach we set out in our Future Ideas Lab Proposal. This research was successful in providing ODI incentive values for our plan based on robust and compelling research. Whilst for our plan we have based this on our customers' views, we also tested the methodology with a smaller national sample and the approach could easily be replicated in advance of draft and final determinations. This approach is set out in the research report from ICS Consulting [Outcome Delivery Incentives Research – Informing top-down Incentives for PR19 – September 2023].

The approach is two-fold – it tests the relative importance of individual incentives, and then pooled groups of incentives. Customer weights between performance commitments are also established through a "best worst" series of choices. Their view on the size of overall package of incentives was a cap/collar of £5 per incentive per annum, with little difference between the national and SWB/BRL samples in either case.

⁶ "How could we simplify ODI rate setting", Bristol Water, <u>PowerPoint Presentation (ofwat.gov.uk)</u>



As well as incentive rates, the research also helps to demonstrate customer support for ODI design features. As well as a balanced approach to incentives, there remains strong customer support for third party impacts, weather, data uncertainty and new metrics risk to be taken into account in setting a balanced suite of performance incentives.



We used a geometric mean between method 1 (importance scores) and method 2 (best worst comparison exercise), in order to derive the relative weight of value that should be applied to each incentive area (£5 equating to c2% of RORE)

	Ofwat customer research				South West /Bristol customer research				
Performance commitment	1	2	3	Ofwat proposed ranking	1	2	Geometric mean	SWW customer ranking	
Internal sewer flooding	1	Н	84%	Н	7.3	1.3	3.1	М	
External sewer flooding	2	Н	84%	Н	7.4	1.4	3.2	М	
Water supply interruptions	3	Н	83%	Н	7.2	1.0	2.7	М	
Compliance risk index (CRI)	4	Н	87%	Н	7.8	2.0	3.9	Н	
Customer contacts	5	н	87%	н	7.2	0.8	2.4	L	
Discharge permit compliance	-	М	82%	М	7.7	1.6	3.6	н	
Serious pollution incidents	6	М	82%	М	7.7	2.1	4.0	н	
Storm overflows	7	L	82%	М	7.2	0.9	2.5	L	
Total pollution incidents	8	М	82%	М	7.1 using minor	o.8 using minor	2.4	L	
River water quality	9	М	82%	М	7.5	1.7	3.6	н	
Biodiversity	-	М	69%	М	7.2	0.9	2.6	М	
Asset health 1: Mains repairs	-	-		М	7.4	1.7	3.5	М	
Asset health 2: Sewer collapses	-	-	78%	М	7.3	1.2	3.0	М	
Asset health 3: Unplanned outage	-	-		М	7.0	0.9	2.6	М	
Leakage	10	М	81%	М	7.6	1.5	3-3	М	
Per capita consumption	10	L	79%	L	7.1	1.1	2.8	М	
Business demand	10	L	79%	L	6.9	0.7	2.1	L	
Operational GHG emissions	-	L	68%	L	6.9	0.7	2.2	L	
Bathing water quality	11	L	82%	L	7.7	1.6	3-5	н	

ICS Consulting also prepared a further report setting out the calculation of incentive rates from this research [PR24 Outcome Delivery Incentive Rates – A customer informed top-down approach to setting ODIs]. To be consistent with the Ofwat approach to PR24, we used the original Ofwat top-down rate models in order to use the research and customer preferences to derive our incentive rates.



The geometric mean relative to the average weighting produces the % of regulated equity, which can then be used to calculate incentive unit rates. This is compared below to the Ofwat judgement (based on interpretation of measures as High, Medium or Low)

Performance commitment	Ofwat priority	Ofwat intention	SWW geometric mean	SWW customer priority	Relative to average	SWW proposed
Internal sewer flooding	н	0.6%	3.1	М	1.0	0.22%
External sewer flooding	н	0.6%	3.2	М	1.1	0.23%
Water supply interruptions	н	0.6%	2.7	М	0.9	0.19%
Compliance risk index (CRI)	н	0.6%	3.9	н	1.3	0.28%
Customer contacts	н	0.6%	2.4	L	0.8	0.17%
Discharge permit compliance	м	0.5%	3.6	н	1.2	0.25%
Serious pollution incidents	м	0.5%	4.0	н	1.4	0.29%

Performance commitment	Ofwat priority	Ofwat intention	SWW geometric mean	SWW customer priority	Relative to average	SWW proposed
Storm overflows	м	0.5%	2.5	L	0.8	0.18%
Total pollution incidents	М	0.5%	2.4	L	0.8	0.17%
River water quality	М	0.5%	3.6	Н	1.2	0.25%
Biodiversity	м	0.5%	2.6	М	0.9	0.18%
Asset health 1: Mains repairs	М	0.5%	3-5	М	1.2	0.25%
Asset health 2: Sewer collapses	М	0.5%	3.0	М	1.0	0.21
Asset health 3: Unplanned outage	М	0.5%	2.6	М	0.9	0.18%
Leakage	М	0.5%	3.3	М	1.1	0.24%
Per capita consumption	L	0.4%	2.8	М	0.9	0.20%
Business demand	L	0.4%	2.1	L	0.7	0.15%
Operational GHG emissions	L	0.4%	2.2	L	0.7	0.15%
Bathing water quality	L	0.4%	3.5	Н	0.7	0.15%
Catchment management	-	N/a	2.5	L	0.8	0.18%
Carbon from construction	-	N/a	2.0	L	0.7	0.14%

The Incentive rates and outcomes design are set out in our separate outcomes document. In this section we describe the overall risk and return range. We have tested this in a number of ways. The overall outcomes range we have established through our design is -5.2% to +3.9%, including the range of caps and collars. The more likely P10 to P90 range is broadly symmetrical at -2.0% to +1.7%. This is only achievable with the ODI design that we present, alongside the use of our own incentive rates. Given our approach to minimising bills this is therefore part of a balanced plan package and should be considered as a whole.

ODI Incentive range (£m p.a.)

The yellow and blue bars represent the P10 and P90 ranges for each incentive. Red and dark green bars fall outside of the P10 and P90 expected performance range, and light green represents the potential impact of enhanced ODI performance incentive rates.



We tested our ODI design through with a number of scenarios – this covered both SWB and BRL separate ODIs and incentive rates, but we consider the overall impact at appointee level. For this analysis we include Isles of Scilly metrics within SWB, although for the key regulatory measures that are monitored separately for IoS we propose these should be separated out as ODIs.

The tests we carried out were against two key scenarios – the framework and targets if we applied the Ofwat PR24 indicative methodology and incentive rates, against our preferred ODI design that produces a balanced risk and return package.

Appointee level - % RORE average AMP8 p.a.	Ofwat incentive design P10	Ofwat incentive design P90	Our incentive design and rates P10	Our incentive design and rates P90			
2022/23 actual performance rolled forward	bespole metric	luding GHG, RWQ and as which have AMP7 selines)	-2.6% (-1.2%)				
2024/25 forecast performance rolled forward		-3.1%	-1.	1%			
RORE range (additive P10/P90)	-6.1%	+2.8%	-2.8%	+1.6%			
RORE range (sensitivity tested)			-2.0%	+1.7%			
Probability distribution (linked) – SBB forecast performance	-2.1%	+1.3%	-0.9%	+0.8%			
Probability distribution – Oxera WBB industry performance	-1.2%	-0.2%	-0.4%	0.0%			

The additive P10/P90 range from the Ofwat incentive rates falls well outside the methodology and is not symmetrical. The impact of our ODI incentive rates and design (supported by customer research) reduces this range to within the overall RORE range, but was still not symmetrical.

Reviewing the range further we identified that there were aspects of performance (such as bathing water and internal flooding) that overall could produce a symmetrical RORE range of c+/- 2%, as part of a set of mitigating impacts within our plan (including both ODI design and uncertainty mechanisms). The deliver of this is uncertain, given the changes in ODI definition and the scale of impact. Removing some of the uncertainties (such as the assumption that there would be a penalty rate of 100 spills for storm overflows EDM non-operation and now deadband allowance, when the EA EDI operability expectation is 90%) cannot be economic or part of a balanced range of risk and return. Removing such aspects of potential PR24 incentives is necessary, which when combined with our forecast performance, suggests a performance range of c.+1% to -1% which provides some headroom for delivery uncertainty. We do not take into account in this analysis the performance uncertainty associated with regulator reclassification of performance metrics, such as the potential removal of no impact incident classification for pollution incidents.

We applied a simple probability distribution between P10 and P90 levels of performance, using 2022/23 performance between the 10th and 25% percentile and 2024/25 performance between the 25th and 40th percentile. For outperformance we varied between neutral ODI performance, 2024/25 performance and if 2030 performance targets were delivered in all years between the 40th and 90% percentile, depending on the overall impact.

An example of the annual distribution of incentive performance (£m) is shown overleaf:

		10%	25%	40%	70%	90%
	P10	22/23	24/25	Target	24/25	P90
CRI	-1.9	-1.2	-0.7	-0.3	0.0	0.0
Supply interruptions	-2.0	-1.7	-0.5	0.0	0.3	0.4
WQ contacts	-2.4	-1.5	-0.6	0.0	0.7	1.0
Mains repairs	-2.4	-2.0	0.0	0.0	0.1	1.4
Unplanned outage	-0.6	-0.3	-0.2	0.2	0.3	0.7
Pollutions	-8.4	-7.4	-1.0	0.0	0.8	1.0
Serious pollution incidents	-4.2	-1.4	0.0	0.0	0.0	0.0
Discharge permit compliance	-2.0	-1.3	-1.5	0.0	0.0	0.0
Internal flooding	-1.5	-0.3	0.0	0.2	0.2	0.3
External flooding	-6.6	-3.2	-0.6	0.0	0.2	2.5
Sewer collapses	-0.7	-0.6	-0.3	0.0	0.6	0.8
Storm overflows	-3.4	-1.7	-0.3	0.0	0.0	0.2
Leakage	-4.1	-3.9	-0.1	0.0	0.8	1.2
PCC	-3.4	-1.6	-2.7	-0.3	0.0	3.6
Business demand	-0.9	-0.3	-0.3	0.0	0.6	0.8
Bathing water quality	-15.8	-10.6	8.4	15.8	15.8	15.8
Operational GHG water	-2.2	-2.0	-0.7	0.0	0.7	2.0
River water quality	-19.4	-3.7	-2.7	2.7	3.7	3.7
Operational GHG wastewater	-2.5	-1.8	-0.2	0.0	0.2	2.5
Catchment management	-7.1	-1.4	-1.0	0.0	1.0	2.0
Carbon emissions from construction	-1.0	-0.4	0.0	0.3	0.4	0.9

As part of this analysis we linked probabilities for the metrics where performance can be aligned for exogenous impacts such as weather events:

- CRI probabilities linked to WQ contacts and unplanned outage
- Pollution incidents, serious pollution incidents and external flooding
- PCC and internal flooding have opposite probabilities (dry and wet weather)
- Mains repairs and leakage
- Business demand and PCC

Running Monte-Carlo simulation over our incentive design and rates demonstrated that they provided a balance of risk and return, without asymmetry that would require incentives adjustment. At the extremes of performance there can be significant penalties, but these are remote enough to be mitigated by the ODI aggregate sharing proposal within the PR24 methodology.



The main factors influencing the outcome relates to bathing waters, offsetting the risk of pollution incident risk.



Total

This is a balanced incentive framework because pollution incidents would risk the bathing water quality status. The potential for the EA to apply uncapped variable monetary penalties also means that there is a risk of financial consequences not in the ODI framework that are normal business risks that affect RORE returns. Variability in water use, leakage and external flooding, alongside external risks in mains repairs and supply interruptions provides for the shape of the simulation - small outperformance on a range of high performing (but stretching) targets offsetting a significant downside tail of risks (even though collars are in place) on environmental measures (pollutions, leakage etc).

The overall distribution and linked risk analysis produces small net OPI outperformance (assuming performance continues to improve so the P50 level matches the target). This reflects SWW assessment of deliverability plans, rather than a notional industry position.

Our incentive rates	P10	Median	P90
Skew analysis (£m)	-20	5.9	14.8
RORE	-0.9%	0.3%	0.7%
Linked risk analysis (£m)	-19	6.4	16.9
RORE	-0.9%	0.3%	0.8%

As recognised at previous reviews, the Monte Carlo analysis is sensitive to the assumptions made. We have worked with Oxera to develop a robust tool that assesses variability in industry historical performance, building on the WBB analysis we used to inform setting stretching incentive levels. This has been run for both our incentive design and incentive rate framework and the design and incentive rates suggested by the Ofwat methodology.

Oxera ODI risk analysis methodology

The Monte Carlo PC/ODI risk analysis has been developed with Oxera, based on work undertaken by Bristol Water at PR19. This analysis is built on the "what base buys" analysis also developed with Oxera, We provide detail of the analytical methodology and findings here.

Broadly this analysis tests for the impact of ODI risk both in terms of nominal penalties/rewards and percentage impact on RORE by performing Monte Carlo simulations to project likely future expected PC performance.

By considering historical performance in each year relative to PCLs, Oxera forms an extrapolation of likely future project performance deviations, then applies this to the "what base buys" trend analysis to derive simulations of future projected PC performance. The Ofwat proposed PR24 ODIs are then applied to derive projected annual penalty/reward, and the subsequent impact on RORE.

We provide details on each step of the analysis below.

Steps in order	Explanation
Obtain historical performance data	Oxera obtains historical data on the 17 PCs from Ofwat's top-down ODI models (up to 2021/22 data), and from the 2023 provisional APRs (for 2022/23 data). The calculated deviations against the contemporaneous PCLs is then collated. In the implied Ofwat Base and Enhanced models (shown below), these deviations are calculated against Ofwat's performance benchmarks of upper quartile (UQ) performers, and also contained within the top-down models (up to 2021/22 data).
Categorise historical deviations by percentile	Based on the collected historical data, percentiles for performance levels are calculated by bucketing historical performance into 10 probability categories (i.e. 10th percentile, 20th, and so on).
Randomised draws of future deviations based on historical percentiles	Oxera impose a standard normal distribution, and perform 1,000 Monte Carlo simulations. These draws are effectively discrete, i.e. each PC and each year of PR24 is an individual randomised draw.

Estimate future projected PC performance	Using the probabilities from the randomised draws mapped against the percentiles of historical performance, Oxera then calculate the future projected PC performance across PR24 (AMP8).
Estimate simulated deviation against "what base buys"	Oxera then calculate the deviation between the future projected PC performance, against the PC trend data developed from the "what base buys" analysis.
Estimate simulated ODI penalties/ rewards	The differential from the previous step is then multiplied against Ofwat's ODI rates, drawn from each of Ofwat's top-down models.
Convert ODI penalties/ rewards into percentage impact on RORE	The sum total of penalties/ rewards across PR24 is divided by 5, to determine the average penalty/ reward p.a. over PR24. This is then divided by total regulated equity as of 2021/22, taken from Ofwat's top-down models.

The analysis uses the information of outturn performance versus PCLs contained in Ofwat's PR24 top-down ODI models. Within these Ofwat calculated performance (P10 and P90) to inform ODI rates. Importantly, Oxera's analysis is purely statistical and based on historical data. It considers what might be a 'top down' view of risk— abstracting from company-specifics, management judgement or future risks not reflected in the historical data (including delivery of the enhancement programme).

It is also important to note that, within this framework, Oxera adopt a conservative modelling approach in performing its simulations. As Oxera performs each PC's and each year's simulations on a discrete basis, the projected outputs over the five years of AMP8 are the results of individual uncorrelated draws from a probability range informed by historical data. Whereas in year 1 there might be outperformance, in year 2 there could be underperformance, and so on.

The converse of this would be to perform 'static' draws, where a randomised draw is performed for each PC in year 1, and subsequent years for that PC is assumed to follow the draw of year 1. This is an important distinction, as the 'static' approach effectively assumes complete serial correlation for each draw—a draw of poor performance in year 1 remains poor throughout PR24, with no prospect of recovery, and vice versa—thus widening any simulated distribution.

In Oxera's view, the static approach across all PCs may not be appropriate, as reported annual PC performance can fluctuate due to a myriad of factors, including the weather. Notwithstanding this, many companies have underperformed thus far in AMP7 (9 of the 15 PCs modelled have P50s that are negative at the industry level), including underperformance in 2022/23, and there is a significant risk that companies will miss their 2024/25 targets. Oxera's top-down Monte Carlo exercise is thus conservative, as performing discrete draws for each year of AMP8 effectively smooths performance over the five year period, thereby narrowing the range of the simulated distribution.

For the purposes of analysing Ofwat's ODI methodology further and towards proposing improvements, we worked with Oxera to develop several iterations of the main ODI risk model. This is expanded on below.

Model iteration	Explanation
Implied Ofwat Base model	This is Oxera's base simulation model, based on Ofwat's UQ benchmarks as the basis for the P10/P90 performance range against which each company's PC performance deviation is derived. This model uses data from Ofwat's top-down models (up to 2021/22), and the 2023 provisional APRs (data for 2022/23). This model is effectively a statistical top-down analysis applying Ofwat's existing PR24 ODI design.
Implied Ofwat Enhanced model	Building on the base model, the randomised draws for selected PCs (shown below) are correlated to each other, based on correlations calculated from the historical performance data.

SWW Enhanced model	Instead of Ofwat's UQ benchmarks, this model instead applies our view of the appropriate benchmarks, and our ODI rates. Randomised draws for selected PCs (shown on the following pages) are also correlated similar to the implied Ofwat Enhanced model.
SWW Full model	In addition to the SWW Enhanced model, this model includes our added protections for selected PCs (shown on the following pages).

Oxera ODI risk analysis findings

As discussed above, the Oxera analysis starts with the Ofwat "what base buys" analysis of performance trends and incentive rates. This takes the historical performance variation for each ODI, alongside the Oxera extrapolation of performance, and then applies it to the PR24 proposed targets for SWB and BRL. We extend the Ofwat analysis of performance that was used in the methodology and calculation of incentive rates and risk for 2022/23 performance data, which shows a particularly adverse year for weather compared to previous years data since 2020.

Using performance percentiles derived from Ofwat's PR24 top-down ODI models combined with Ofwat's PR24 top-down ODI incentive rates (the Implied Ofwat Base model), Oxera's analysis results shows a significant imbalance of risk and return within Ofwat's existing ODI design. Histograms are presented below. For SWB, the mean and median downside risk is -0.6% and -0.5% RORE respectively, with a P10/P90 range of -1.2% to -0.2%. For BRL, the mean and median downside risk is -1.2% and -1% respectively, with a P10/P90 range of -2.2% to - 0.4%. Therefore, within this framework, there is therefore no upside at P90—in contrast to Ofwat's final methodology objective of a +/- 2% RORE range.



Table Set 1: SWB and BRL ODI risk analysis findings, Implied Ofwat Base model

The Implied Ofwat Enhanced model then builds upon the base model and introduces correlations to reflect the linked performance of specific PCs (detailed above). Oxera's findings in the Implied Ofwat Enhanced model show a clearer negative skew, depicting greater downside risk. For SWB, the mean and median downside risk is -0.6% and -0.5% respectively, with P10/P90 range of -1.1% to -0.1%, however is more than 3 times as skewed, with fatter tails relative to the Ofwat Base model. For BRL, the mean and median downside risk is -1.2% and -0.9% respectively, with P10/P90 range of -1.9% to -0.2%, with comparable observations over the change in skew and kurtosis seen in SWW results.



Table Set 2: SWB and BRL ODI risk analysis findings, Implied Ofwat Enhanced model

The next element of our testing considers our own interpretation of What Base Buys – we move to industry median or an average of median and benchmark (instead of Ofwat's upper quartile benchmarks) depending on the evidence of whether the industry is on track to hit existing performance targets, whether enhancement cost plays a role, and also whether there is natural variability and exogenous factors that affect the target.

Even using our own calculated incentive rates for SWB and BRL (shown in the methodology section above), this shows a significant imbalance of risk and return. This is captured within Oxera's SWW Enhanced model, which shows a median downside risk for SWB of -0.2% p.a. (-0.4% P10 to -0.1% P90) and -0.3% for BRL (-0.8% to 0%).



Table Set 3: SWB and BRL ODI risk analysis findings, SWW Enhanced model

The BRL numbers are worse on the downside relative to SWB because using median incentives based on notional RCV naturally results in higher RORE penalties for companies with a relatively low RCV. The level of asymmetry is much larger than the CMA found at PR19, without further calibration of incentives.

Introducing our SWW's benchmarks and incentive rates instead of Ofwat's reduces deviations from the mean, but the results remain negatively skewed. This demonstrates the risk in assuming that extrapolating past base performance from a small (model efficiency upper quartile) set of companies without careful interpretation of performance. This also shows that our approach to setting stretching performance targets in respect of base has not significantly reduced the risk associated with this based on past industry performance. Incentive rates reduce the scale of asymmetry, but not the asymmetry itself. This risk needs to be addressed at source through ODI design.

Oxera then ran a further simulation using our incentive rates and ODI protections (the SWW Full model). This reduced the median to 0% and the P10/P90 range to -0.1 to +0.1% for SWW. This narrow range reflects the impact of using industry risk data and is narrower than our own assessment, but wider for Bristol. Bristol incentives reduced to a median of -0.4%, with a range of -0.8% to -0.2%. The appointee range is therefore similar. This is because there is more correlation in water service incentives to outside factors such as the weather than wastewater, where the external factors appear to be more individual metric driven.



Table Set 4: SWB and BRL ODI risk analysis findings, SWW Full model

The above analysis is top-down and based on historical data. The analysis does not consider company-specific issues (other than in applying protections or ODI rates) or future risks.

Even with various adjustments in place (including the application of SWB and BRL ODI rates):

- the RORE range is not ±2%
- the RORE range remains negative, for both P10 and P10 (in other words, the mean ODI remains in penalty territory, and rewards (if any) are outside of the P10/P90 range)
- there is a negative skew within the methodology (downside risk is greater than upside).

Conclusions from Oxera's ODI risk analysis

We conclude, consistent with the customer research, that an additive RORE range for individual ODIs is a more appropriate assessment of risk. ODI designs are necessary as service levels improve in order to symmetrical risk, as outperformance becomes harder to achieve (demonstrated by the "What base buys" trends of declining rates of improvement as performance improves), particularly for asset health metrics, and increasing risk trend in other metrics such as PCC and supply interruptions that are more vulnerable to weather impacts – the most logical explanation is the impact of climate change is more severe as services improve, because asset and operational causes of failure would have masked the response to these (less frequent) events in the past.

This demonstrates the higher risk on lower RCV price controls and the higher risk on the water service given the low scope for outperformance, such as on supply interruptions. ODI design and dynamic incentives are necessary to avoid this asymmetry. The data shows there are factors being incentivised that from an economic efficiency perspective that remain outside company control – recalibration of the PR24 framework is clearly justified by this evidence.

This demonstrates that even with incentive rates derived from robust top down customer research, the fundamental risk facing the industry in the PR24 methodology requires amendment, both in target performance levels less stretching than an upper quartile base cost extrapolation and in ODI incentive design. This reflects both a portfolio risk across metrics and questions, with an ODI framework, why targets should be set based on further improvements in performance from base expenditure, given the risks of external impacts such as weather than can affect the water industry periodically.

Table RR30

Table RR30 shows the following total ODI impact and incentive range. The split by price control reflects that there no retail ODIs at PR24. The Bristol ODIs are shown as part of the additional controls. For this notional estimate we have taken an additive approach. We show in the sensitivity testing that our high performance may mean there is a lower ODI range (because it is harder to outperform and performance protects underperformance). The impact of the ODI protections we have proposed to avoid excessive penalties and asymmetry means that the additive ODI range is best supported by the evidence. Because of the nature of the Monte-Carlo simulation, we would scale back each ODI entry to arrive at the linked risk ODI range of +0.8% to -0.9%.

Overall, there is a small asymmetry on incentives on water service (SWB and BRL) compared to wastewater.

The profile of risk also behaves as expected, with a reduction in potential outperformance and increase in potential underperformance over the period.

Line Description	Units	DPs						
	Units		2025-26	2026-27	2027-28	2028-29	2029-30	2025-30
Outcome Delivery Incentives scenarios - high case								
Water ODIs - high case	£m	3	13.961	11.888	9.571	6.782	6.302	9.701
Wastewater ODIs - high case	£m	3	29.567	29.727	27.771	25.205	23.904	27.235
Retail ODIs - high case	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
				0.007	4 005	0.700	2.872	3.684
Additional control ODIs - high case	£m	3	4.616	3.927	4.235	2.769	2.072	5.004
Additional control ODIs - high case Outcome Delivery Incentives scenarios - high case ~ total	£m £m	3	4.616 48.144	45.542	4.235	34.757	33.079	
Outcome Delivery Incentives scenarios - high case ~ total		-						
Outcome Delivery Incentives scenarios - high case ~ total Outcome Delivery Incentives scenarios - low case		-						40.620
Outcome Delivery Incentives scenarios - high case ~ total Outcome Delivery Incentives scenarios - low case Water ODIs - low case	£m	3	48.144	45.542	41.577	34.757	33.079	-14.737 -26.767
Outcome Delivery Incentives scenarios - high case ~ total Outcome Delivery Incentives scenarios - low case Water ODIs - low case Wastewater ODIs - low case	£m	3	48.144 -11.370	45.542 -13.162	41.577 -14.739	34.757 -16.390	33.079 -18.023	40.620 -14.737 -26.767
	£m £m £m	3 3 3 3	48.144 -11.370 -26.236	45.542 -13.162 -26.516	41.577 -14.739 -26.763	34.757 -16.390 -27.035	33.079 -18.023 -27.284	40.620

RORE - high case								
Outcome delivery incentives RoRE - high case	%	2	2.11%	1.91%	1.66%	1.32%	1.21%	1.64%
RoRE - low case								
Totex RoRE - low case	%	2	-1.81%	-2.09%	-2.13%	-2.14%	-1.88%	-2.01%
Outcome delivery incentives RoRE - low case	%	2	-1.87%	-1.92%	-1.92%	-1.93%	-1.93%	-1.91%

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Average

Dynamic incentives

There are a number of challenges in setting incentives at PR24 – as evidence in the WBB analysis performance trends from base expenditure are not categorically improvements, rather there is clear evidence of more and less benign performance years, with 2022/23 being an example of adverse industry performance from weather and third party impacts overall. The change in ODI definitions also means there is not sufficient historical data to be confident that performance targets can be extrapolated to recognise continuous improvement.

It is also clear that there is a need for deadbands, caps and collars in ODIs in order to provide symmetrical outcome incentives consistent with the cost of capital. This is difficult to balance – on the one hand Ofwat much challenge companies to propose stretching plans and to improve resilience. On the other hand, customers do not support incentives that penalise companies for factors outside of their control that would not be economic to resolve. In many cases this can be resolved through ODI definitions, but exceptions that are company specific are far harder to justify or administrate incentive payments if exceptions are made.

With incentive designs (deadbands, caps and collars) Ofwat have set out concerns that this deadens the impact on incentives (e.g. companies target the deadband, or cease to target performance once beyond the limits of a cap or collar. In ODI designs with top down incentive rates, we are assuming a range of performance in order to allocate the top down bill/RCV value to in any case. Concentrating that ODI value over an expected (incentivised) range of performance is therefore inherent within a top down approach to setting ODI incentive rates.

Having thought carefully about this topic and based on the compelling evidence, research and analysis tools in support of our plan, we continue to believe that there is an alternative approach that would use dynamic incentive targets, where there are common industry metrics and expected levels of performance. Dynamic incentives help to anchor incentives around industry medians, but can create a deadband for rewards and penalties compared to industry averages. This means that if there are weather impacts across the sector, and this is not anticipated when setting targets, performance in between the industry median and the plan target benchmark is neither rewarded or penalised. For companies above or below these thresholds, there are graduated underperformance or outperformance payments up to a cap level. This approach reduces the risk that companies target the ODI design – companies do not know where the industry median will be until after the year has finished, and therefore what the incentives consequences of performance will be. This is consistent with top-down approaches to RORE allocations, rather than incentive rates that are assumed to be set where marginal costs = marginal benefits.

In the response to the Ofwat ODI definitions work we suggested this as an alternative approach to CRI, reflecting that regulator judgement is involved in assessing the scoring against this metric, which appears to be driving up median industry performance over time.

An example of a dynamic incentives is the approach used at PR19 for C-MEX and D-MEX – effectively this caps maximum rewards and penalties at the best/worst of the industry and allows for relative performance for other companies. This also works where there is data uncertainty (e.g. new definitions). The approach requires both credible caps and collars (as that constraints the top down ODI incentive rate over a reasonable range of performance for normal events), and also supports credible industry targets being set, as if targets are set that are genuinely unachievable, companies are not penalised – setting a credible and realistic target allows performance improvement and customer protection to be better incentivised because an inappropriately tough target will just create a wider deadband of performance. A distinction is automatically made between factors affecting the industry, and only making performance adjustments for particularly positive or poor performance.

An illustration of how it would have worked for internal flooding in 2021/22 is shown below. The left axis shows the distribution of internal flooding performance and the right axis shows an assumed penalty / reward level in terms of % of RORE. In this case the industry median performance is slightly above the target, and for the two companies in between the target and the median there are no

rewards and penalties. Other company performance is then scaled by the top down incentive rate between the target / median and the cap and collar level.



Dynamic incentives will not work for every ODI. The easiest application is to the common ODI and performance levels, and the customer measures of experience targets. For company specific PC levels, dynamic Incentives could be used where targets are set as the percentage reduction in performance, as is the case for leakage and PCC. Whilst water quality contacts are suggested in the methodology as common PC levels, the WBB evidence suggest too significant an impact from enhancement expenditure to take this approach.

Dynamic ODIs	Company specific PC level	Standard PC level	Bespoke ODI levels (company proposal to theme)
Supply interruptions	Water quality contacts	Serious pollution incidents	River water quality
Internal sewer flooding	Leakage		Biodiversity
Pollution incidents	PCC		Greenhouse gas emissions
CRI	Business demand		Bathing water quality
Discharge permit compliance	Mains repairs		
Unplanned outage	Sewer collapses		

C-Mex, D-Mex, B-	Storm overflows
Mex, R-Mex	
External flooding	

We recognise that this approach was not considered during the PR24 methodology consultation. Therefore, we have set this approach out as an alternative option within our plan. We would welcome the opportunity to work with Ofwat to explore the option further and to test application as part of ODI incentives calibration during 2024.

RR30 – RORE analysis

We have included a notional 0.7% of RORE financing upside and downside. We calculated the net debt issuance based on a 1% movement in interest rates (with a 50% probability) based on an average new to embedded debt (for which we assume 34%). The balance of the financing scenario represents the notional embedded index linked debt assumptions, for the element that is not assumed to be index-linked (66%). Our risk assumption for inflation is the difference between the September 2021 embedded debt assumption (2.34%) and our latest forecast (2.69%) – this is a proxy for the movement in embedded debt in an inflationary and deflationary period.

We have not identified any other RORE impacts – we assume zero for QAA assessment and assume a similar small 0.05% RFI risk for revenue variation and movement in household retail numbers.

Line Description		DPs					Average	
			2025-26	2026-27	2027-28	2028-29	2029-30	2025-30
	-							
Financing scenarios - high case								
New debt issuance - high case	£m	3	3.627	7.254	10.881	14.507	18.134	10.881
Inflation - high case	£m	3	2.088	4.177	6.265	8.354	10.442	6.265
Financing scenarios - high case ~ total	£m	3	5.715	11.431	17.146	22.861	28.576	17.146
Revenue & other impacts - high case								
Revenue - high case	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
Other - high case - Please specify	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
Revenue & other - high case ~ total	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
Financing scenarios - low case								
New debt issuance - low case	£m	3	-3.715	-7.431	-11.146	-14.861	-18.576	-11.146
Inflation - low case	£m	3	-2.139	-4.279	-6.418	-8.557	-10.696	-6.418
Financing scenarios - low case ~ total	£m	3	-5.855	-11.709	-17.564	-23.418	-29.273	-17.564
Revenue & other - low case								
Revenue - low case	£m	3	-1.141	-1.190	-1.250	-1.312	-1.368	-1.252
Other - low case - Please specify	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
Revenue & other - low case ~ total	£m	3	-1.141	-1.190	-1.250	-1.312	-1.368	-1.252
RoRE - high case								
Financing RoRE - high case	%	2	0.25%	0.48%	0.69%	0.87%	1.04%	0.67%
Revenue & other RoRE - high case	%	2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
RoRE - low case								
Financing RoRE - low case	%	2	-0.26%	-0.49%	-0.70%	-0.89%	-1.07%	-0.68%
Revenue & other RoRE - low case	%	2	-0.05%	-0.05%	-0.05%	-0.05%	-0.05%	-0.05%

Other reconciliation mechanisms

Other than set out in our section on uncertainty mechanisms we assume reconciliation mechanisms as set out in the Ofwat PR24 methodology. This is subject to reviewing the draft determination as a whole:

- Bioresources revenue reconciliation between forecast and actual sludge volumes
- Residential retail revenue (based on outturn number of customers)
- Cost of new debt reconciliation
- Land sales reconciliation
- Revenue Forecasting Incentive we are replying separately to this consultation. In our view there should be a specific removal of tariff trials and innovative tariffs from the Revenue Forecasting Incentive as such initiatives are design to have more variation in revenues, based on their sharper incentive properties (e.g. seasonal tariffs are more likely to vary with weather conditions).
- Tax reconciliation
- We assume that there will be no mechanisms relating to Gearing, such as the Gearing Outperformance Sharing Mechanism at PR19. The benefits of financing outperformance will continue to be shared through our WaterShare+ mechanism.

Annex D: Building blocks of Allowed Revenue

We set our below further detail and useful information of the building blocks of allowed revenue and outputs of our financial modelling.

Retail Cost and margins

The retail costs and margins apply through our area – Bristol and Bournemouth are single service allowances and South West area dual services.

Residential retail cost to serve	2025/26	2026/27	2027/28	2028/29	2029/30
Cost to serve single service unmetered	25.70	25.30	25.23	25.29	25.42
Cost to serve dual service unmetered	30.85	30.36	30.28	30.35	30.50
Cost to serve single service metered	27.92	27.66	27.42	27.19	26.97
Cost to serve dual service metered	32.96	32.66	32.38	32.10	31.84
Residential net retail margin	1%	1%	1%	1%	1%
Allowed revenue per customer – single service	28.64	28.19	28.08	28.10	28.20
Allowed revenue per customer – dual service	33.78	33.25	33.13	33.16	33.28

Тах

We have assumed a corporation tax rate at the current rate of 25% throughout the period. The allocation to tax pools is based on an analysis on the capital plan. The allocation to different tax pools is broadly stable over time.

Allowed revenue

Allowed revenue 2025-30	Water resources	Water network plus	Wastewater network plus	Bioresources	Bristol water resources	Bristol Water network plus	Wholesale total
PAYG	111.190	579.494	529.735	101.586	68.937	315.029	1705.971
RCV run off	41.709	451.262	599.094	42.471	18.034	153.867	1306.437
Return on capital	45.743	312.843	388.808	21.121	21.612	94.477	884.603
PR19 reconciliation adjustments	1.192	26.727	38.100	2.247	1.284	14.630	84.181
Тах	0.000	39.477	9.359	0.000	3.136	18.314	70.286
Grants and contributions (price control)	0.000	0.782	-1.998	0.000	0.000	3.515	2.299
Other income (non price control)	-1.235	-5.180	-4.845	0.000	0.000	0.000	-11.260
Revenue reprofiling	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Wholesale total	198.600	1405.405	1558.252	167.425	113.004	599.832	4042.518
Residential retail							276.095
Total							4,318.613

Profile of allowed revenue by control

Allowed revenue by year	2025/26	2026/27	2027/28	2027/29	2029/30	Total
Water resources	37.560	38.323	39.066	40.645	43.006	198.600
Water network plus	264.503	276.395	283.824	289.185	291.498	1405.405
Wastewater network plus	290.175	306.335	310.272	319.868	331.603	1558.252
Bioresources	30.816	32.031	32.879	33.936	37.762	167.425
Bristol water resources	21.291	22.477	22.797	23.123	23.315	113.004
Bristol water network plus	107.786	118.124	122.235	125.096	126.592	599.832
Residential retail	54.372	54.498	54.988	55.697	56.539	276.095

Total

K factors

	2025/26	2026/27	2027/28	2027/29	2029/30
Water resources	0.00%	2.15%	1.94%	4.11%	5.95%
Water network plus	0.00%	4.66%	2.70%	1.91%	0.85%
Wastewater network plus	0.00%	5.76%	1.27%	3.14%	3.77%
Bristol water resources	0.00%	5.76%	1.41%	1.44%	0.88%
Bristol water network plus	0.00%	9.86%	3.51%	2.37%	1.25%

Revenue reconciliation adjustments

The table below shows the revenue reconciliation adjustments. Key highlights are:

- The largest value is the SWB totex cost adjustment, which reflects the PAYG element of additional expenditure during AMP7 at the relevant cost sharing rate. Because of the scale of the adjustment, we have adjusted this into the RCV to recovery over the life of the assets, rather than immediately through bills. This reduces bill increases by c.£25 (5%) lower than they otherwise would have been.
- The BRL ODI element relates to the end of period metering ODI. We assume PCC adjustments of zero end of period due to the impact of Covid-19 on the delivery of PCC improvements.
- The RFI adjustment helps to reduce bills reflecting additional revenue received, largely from PCC not reducing despite our promotion of water efficiency, which is linked to Covid-19 and weather patterns. The Bristol RFI reflects the recovery of c.£12m of voluntary abatement of 2023/24 K factors (by 5%) which also had an impact in 2024/25.
- C-MeX and D-MeX forecasts reflected expected 2023/24 performance, based on experience in recent years. In recent surveys Bristol has continued to improve relative performance in C-MeX, providing confidence that this is a prudent forecast.
- Developer services reflects the impact of the DSEAR mechanism. Numbers of properties connected have grown above PR24 expectations as the ONS data used by Ofwat was an underestimate and connections have also been driven by increased NAV activity.
- The cost of new debt mechanism reflects recent increases in iBoxx with rising interest rates.
- The tax adjustment chiefly reflects the increase in tax rates from 19% to 25%.
- The CPIH wedge adjustment reflects the impact of the returns and run-off elements of the additional RPI over CPIH inflation.
- Other includes the revenue element of the IFRS16 adjustment as per the 2020 letter from Ofwat.

PR24 price base (2022/23)	SWB	BRL	Total
PR14 residential retail	-0.6	0.0	-0.6
PR19 ODI	0	-3.7	-3.7
PR19 RFI	-23.7	14.7	-9.1
PR19 CMEX	-0.8	0.3	-0.6
PR19 DMEX	0.0	0.1	0.1
PR19 Bioresources	0.0		0.0
PR19 residential retail	0.8	-0.1	0.8
PR19 Developer services	20.2	3.1	23.3
PR19 cost of new debt	13.7	2.1	15.8
PR19 Totex cost revenue adjustment	121.8	6.9	128.7
PR19 Tax revenue adjustment	25.9	3.4	29.3
PR19 CPIH - RPI wedge	17.4	3.0	20.4
PR19 other	13.3	0.0	13.3
Total	188.0	29.6	217.6

RCV reconciliation adjustments

RCV	SWB WR	SWB WNP	SWB WW	SWB BIO	BRL WR	BRL WNP	Total
Closing balance (2017/18 prices)	134.4	1392.8	1614.7	71.0	122.2	395.3	3730.4
PR14 blind year							
ODI	0.0	-0.5	0.1	0.0	0.0	0.0	-0.4
Totex menu	0.0	9.1	3.8	0.0	0.0	3.7	16.5
Land sales	0.0	1.7	0.4	0.0	0.0	0.0	2.1
RPI CPIH wedge	1.0	10.5	12.6	0.6	0.4	1.4	26.5
Other	0.0	-0.2	-0.2	0.0	0.0	0.0	-0.4
IFRS	0.0	10.5	11.2	0.0	0.0	0.0	21.8
PR19 reconciliations							
ODI	8.3	5.0	3.3	0.0	0.0	0.0	16.7
WINEP / NEP	-0.2	0.0	-1.9	0.0	0.0	0.0	-2.2
Cost reconciliation	12.0	15.4	33.5	0.6	-2.1	4.8	64.4
Land sales	-0.2	0.0	-0.1	0.0	0.0	-0.3	-0.6
RPI CPIH wedge	3.4	31.4	36.9	1.5	3.0	9.0	85.2

Strategic water resources	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Green recovery	10.1	66.8	8.1	0.0	0.0	0.0	84.9
Other	0.0	1.2	1.4	0.0	0.0	0.0	2.7
PR24 reconciliations							
Defra accelerated	0.0	13.5	33.4	0.0	0.0	2.6	49.5
Adjusted closing balance (2017/18 prices)	168.8	1557.3	1757.3	73.8	123.5	416.4	4097.1
Closing RCV balance in 2022/23 FYE prices	205.4	1894.8	2138.1	89.7	150.3	506.6	4985.0

The RCV grows by 4.5% in real terms over 2025-2030. The largest growth reflects water resources (interconnectors), wastewater (WINEP) and bioresources (strategic investment in new facilities) and Bristol water network plus (water treatment works enhancement).

RCV – closing balance	2025/26 opening	2025/26	2026/27	2027/28	2028/29	2029/30	Real growth % p.a.
Water resources	252.6	263.8	271.6	284.4	315.7	354.7	7.0%
Water network plus	1865.9	1912.5	1953.4	1991.1	2028.3	2040.1	1.8%
Wastewater network plus	2120.1	2209.7	2340.5	2525.4	2679.1	2832.9	6.0%
Bioresources	89.4	106.5	136.3	146.3	153.8	153.9	11.5%
Bristol water resources	136.8	136.8	136.8	135.9	134.8	133.6	-0.5%
Bristol water network plus	508.5	537.1	574.0	617.3	649.1	680.6	6.0%
Total	4973.5	5166.4	5412.7	5700.4	5960.8	6195.9	4.5%

Annex E: Price Control Deliverables

We have considered Ofwat's guidance on Price Control Deliverables (PCDs) and set out in this section the approach we have taken and our proposals.

Price control deliverables set out:

- a) the outcomes or outputs expected to be delivered from enhancement and related expenditure;
- b) the expected timing of delivery of these outcomes or outputs; and
- c) the payments to customers if these outcomes or outputs are not delivered on time.

We have defined materiality as 1% of wholesale totex for South West Water (£39.4m) and Bristol Water (£6.7m) to be consistent with the threshold for cost adjustment claims. This level is the consistent with the approach taken to Cost Adjustment Claims, and was set to balance the number of price control deliverables with the protection provided to customers. We also tested whether the threshold was varied when split by service level totex for South West Water (water and wastewater), using a 0.5% totex threshold for SWB. The number of PCD areas that we tested is set out below:

Number of PCD group categories	SWB Water	SWB Wastewater	BRL Water
Number at 1% totex threshold	6	6	5
Number at 0.5% totex threshold	6	7	5

We therefore concluded that a 1% of totex threshold was appropriate on the basis that the PCD groupings did not exclude any PCD Groups based on the size of the threshold. On the water service no additional schemes were triggered by the sensitivity test on the threshold. On wastewater the additional scheme at a lower PCD test threshold of 0.5% of wholesale totex was First Time Sewerage (FTS). As this fell just below our threshold at £35.0m we included this within our final proposals.

We also tested for schemes that may be significant and, because of proportionate allocation, would be included in multiple PCD groups. An example is for bioresources, as we have specific enhancement schemes with significant allocation between PCD groups and also from enhancement to base. For bioresources we have assumed for PCD purposes that a cost sharing rate applies, following the review of this scheme. We note that if the standard 100% bioresources company totex risk allocation applies for bioresources enhancement, then the approach to PCDs proposed by Ofwat may not apply (customers sufficiently protected by enhancement case reviews and 100% cost share applying to the company).

The process we went followed to calculate PCDs was as follows:

- We used tables CW3 and CWW3 for annual spend and CW9 and CWW9 for cumulative expenditure to consider the whether the individual enhancement table line met the threshold for consideration for each PCD
- We used the PCD group category to enhancement business plan table line to calculate whether the PCD category triggered out materiality threshold. If the threshold, we included for consideration each table line with totex expenditure that contributed to the PCD group
- We then considered the alternative options for how each PCD could be constructed. We considered both outcomes and outputs that would be possible for each enhancement line within a PCD group category. As far as possible we used information from:

- o Business plan activity table lines
- o Scheme specific information from our PR24 enhancement investment cases
- Where there were schemes that were allocated between multiple PCD groups / enhancement table lines, we considered the individual schemes in order to construct a PCD for that scheme. This could cross multiple enhancement table lines and PCD groups, including those not above the materiality threshold. We believe this is appropriate in order to protect customers for individual schemes, particularly for major projects which may cross multiple AMPs, or those that have significant allocation from enhancement to base expenditure where delivery protection may still be required
- We considered for each PCD what outcome value (from Outcome Delivery Incentives ODIs) should be applied to our PCD value calculation. We explain this further in the section below.

In order to calculate PCD rates we:

- Took the PCD group or individual enhancement / scheme (depending on our approach) totex value and applied the 60% assumption Ofwat indicated in IN23/05 (the "PCD value"). We use the 60% assumption only to align with the methodology Ofwat set out in IN23/05 and to allow Ofwat to compare PCD proposals between companies on a consistent basis. Our assumption is that a 50% assumption should be used to align with the cost sharing rates we assume elsewhere in our plan (e.g. in totex risk assessment)
- We calculated the value from any ODIs that were directly attributable to the enhancement business plan table lines relevant to this PCD (the "ODI value"). Where we chose to apply an outcome approach, the outcome benefits are set out in table CW15 / CWW15 and explained in our enhancement business cases
- Where the ODI value for each PCD grouping was less than 3.5% of the totex value of the enhancement table line / PCD grouping, we calculated a time value of money for the PCD that was 3.5% of the totex value, less the outcome value we attributed to the PCD. This represents the "time incentive rate". This ensures that where there are changes in delivery and customers are not protected sufficiently by ODIs, then there is an adjustment to reflect the benefit value. We consider 3.5% to be an appropriate value because it reflects the Social Time Preference Rate. We propose applying this as an annual adjustment
- We finally calculate a PCD rate, which represents the "PCD value" less the "ODI value", dividend by the unit rate of outcome or output ("activity value") we apply to the PCD element. The activity represents how we propose monitoring changes in each PCD element.

We have included accelerated investment within our PCD calculations, as the guidance was not clear whether this should be the case. As we had specific deliverables that covered AMP8 for particular schemes, we propose tracking delivery of these as part of PCDs rather than requiring a separate adjustment process.

Similarly, table CW3 / CWW3 is before the impact of RPEs and Frontier shift. We have not adjusted for this at this stage and assume this can be adjusted by Ofwat as part of determinations.

Application of PCDs

We note Ofwat's conclusion in IN23/05 that:

Although companies may fail to deliver all or some of the funded outcomes or outputs by the end of the control period, they could still be on track to deliver them early in the following control period. Where this happens, companies should provide sufficient and convincing evidence of why it is in the customers' interests not to apply the price control deliverable payment for non-delivery. This should include evidence on the amount of investment already incurred, the extent of the delay and the reasons for the delay. Companies should also provide evidence and assurance on the updated target delivery dates. Any payment adjustments will consider differences in cost sharing rates between the two periods and whether there is any financial benefit to the company from the delay.

We have also considered carefully whether it is appropriate to have one-way or two-way PCDs. We note Ofwat's policy to only have one-way PCDs. Our conclusion is that this should be considered on a case by case basis, and as part of the end of period RCV adjustment decisions that are considered above.

Our reasons for this are:

- For some of our PCDs the delivery of the scheme is within AMP9. We therefore propose for these outputs that the PCD should apply based on delivery at the end of the scheme, but we will need to provide assurance (as a minimum at PR29 alongside totex reconciliation) on this progress.
- Our PCD categories and proposals are generally discrete. If they overlapped and had multiple changes in outputs then we would have been able to justify a two-way PCD. With the end of period reconciliation, we will consider the net impact of any PCD grouping, but will only apply the PCD where there is a net value due to customers.
- We propose to track progress and deferrals through our WaterShare+ mechanism. This will provide transparency and public engagement (including through the WaterShare Customer Advisory Panel) on our delivery and wider performance. We set out our proposals on this and our storm overflow uncertainty mechanism in a separate section of this document.
- Therefore, we believe that the PCDs we propose should be tracked through the WaterShare+ mechanism, and sharing through this framework should be taken into account in the decisions on any value adjustments at PR29. This will include whether there is any residual value that can be taken into account, for instance from acceleration of other projects.
- Ofwat's original rationale for PCDs was that the statutory programmes would be certain at the point of
 submitting PR24 business plans. This has not been the case and therefore this has limited the amount of
 time to fully develop PCDs. There are also further uncertainties and changes in specific areas of statutory
 programmes, although our business plan reflects the agreed position at the time of submission. There is
 therefore the potential benefit of our approach to have more flexibility for uncertainty to be dealt with
 through WaterShare+, rather than relying on Notified Items and PCDs.

Will we use the PCD value within the WaterShare+ framework as the this will be considered alongside other changes that benefit customers, and the framework itself is only one way in sharing benefits with customers.

Where WaterShare+ has not provided sufficient value, we propose that the wholesale WACC rate and the time value of money rate is applied to the PCD value where there are programme changes or deferrals, and this is considered for any RCV adjustment at PR29. We set out for each PCD the additional.

Outcome values

We have considered carefully whether to deduct any ODI value in order to arrive at a PCD value. Where we propose scheme or output based PCDs, we do not propose deducting the outcome value. This in part reflects our approach to ODI calculation – the outcome incentive rates that we propose are based on a top down RORE allocation approach. These therefore do not represent marginal benefit values of investment, instead reflecting robust customer research about how companies should be incentivised for delivery against performance.

At PR19 there was no explicit link made between most enhancement and outcomes, as the level of ODIs was set so that marginal benefits exceeded marginal costs. For some specific areas there were either:

- Adjustments to underperformance incentives to reflect where there was specific enhancement investment contributing to enhancement performance. Bristol Water had such an approach to leakage taking 50% of the leakage enhancement value and adding this (per MI/d) to the enhancement investment
- End of period ODIs (with adjustments applied to RCV) for specific schemes with delivery targets, including those not linked to statutory programmes (e.g. for Bristol Water metering and Glastonbury Wells resilience main).

There is therefore naturally a disconnect between the ODI value and both the cost and wider benefits value. For most PCDs therefore it is appropriate to take a simple approach and to adjust delivery for the WACC, and potentially for the Social Time Preference Rate as a measure of benefits. The only are of performance where we consider that ODI value could be relevant is for storm overflows, where there is an ODI target that specifically relates to a standard assumption of base performance (20 spills per season) and then a profiled reduction to 17.5 spills per season by 2030. However, as we propose a specific cost based uncertainty mechanism for storm overflows, which would include the impact of PCDs, we do not include the outcome value for this PCD. We would revisit this if Ofwat did not agree with our uncertainty mechanism proposal, which protects customers because of the greater cost uncertainty for storm overflows.

Summary of Price Control Deliverables

BDI water

The tables below sets out the summary of our PCDs

BRL water						
PCD name	Enhancement table line references (totex)	PCD category	AMP8 Totex value	PCD approach	Activity	Section reference
Leakage	CW3.49	PCDW10	£30.8m	Ml/d reduction	Various	PCD_1
Metering	CW 3.62, 3.74, 3.83	PCDW12	£21.2m	Split by activity	New meters, replace basic with smart meters	PCD_2
Water Quality (Taste, odour and colour)	CW 3.93	PCDW13	£21.7m	Specific scheme output and activity	By project line	PCD_3
Water Quality (Raw water deterioration) / Resilience	CW3.99 & CW3.120	PCDW14 & PCDW16	£84.2m	Specific scheme output	By scheme	PCD_4
Lead pipes	CW 3.108, 3.111 & 3.114	PCDW15	£18.6m	Activity	Pipes replaced	PCD_5

PCDW14 & PCDW16 are considered together because they reflect proportionate allocation of individual schemes.

SWB - water

PCD name	Enhancement table line references (totex)	PCD category	AMP8 Totex value	PCD approach	Activity	Section reference
Supply side improvements	CW3.43 & CW3.55 (part)	PCDW11	£38.9m	Scheme specific output	Scheme completed	PCD_6
Leakage	CW3.49	PCDW10	£67.9m	Ml/d reduction	Various	PCD_7

Interconnectors & Resilience	CW3.52 & CW3.120	PCDW11 & PCDW16	£181m	Specific scheme output	Per scheme	PCD_8
Metering	CW 3.62, 3.65, 3.74, 3.77, 3.83	PCDW12	£56.4m	Split by activity	New meters, replace basic / AMR with smart meters	PCD_9
Water Quality (Taste, odour and colour / Raw Water Deterioration / Resilience)	CW3.93, CW3.99, CW3.120	PCDW13 & PCDW 14 & PCDW16	£110.5m	Specific scheme output	Per scheme	PCD_10
Lead pipes	CW3.108, 3.111, 3.114	PCDW15	£41.3m	Activity	Pipes replaced	PCD_11

PCDW11, PCDW13, PCDW14 & PCDW16 are considered together because they reflect proportionate allocation of individual schemes.

SWB wastewater

PCD name	Enhancement table line references (totex)	PCD category	AMP8 Totex value	PCD approach	Activity	Section reference
Storm overflows	CWW3.18, CWW3.21, CWW3.24, CWW3.27, CWW3.33, CWW3.39, CWW3.42, CWW3.48	PCDWW5 & PCDWW6	£593.4m	Enhancement line volume driver	Per scheme	PCD_12
Phosphorus removal	CWW3.66, CWW3.69	PCDWW10	£108.8m	Specific scheme output	Individual project	PCD_13
Nutrients	CWW3.72	PCDWW11	£41.7m	Specific scheme output	Per scheme	PCD_14
Sanitary parameters	CWW3.75	PCDWW12	£40.4m	Specific scheme output	Individual project	PCD_15
Sludge treatment (bioresources)	CWW3.145, CWW3.164, CWW3.181	PCDWW25 & PCDWW30 & PCDWW35	£79.2m	Specific scheme output	Single outcome	PCD_16

First Time Sewerage	CWW3.161	PCDWW29	£33.6m	Scheme specific output	Individual project	PCD_17
FFT	CWW3.15	PCDWW4	£140.8m	Scheme specific output	Individual project	PCD_18

PCDWW5 & PCDWW6 are considered together because they reflect proportionate allocation of individual schemes. We consider PCDWW25, 30 & 35 as this reflects proportionate allocation of a single bioresources scheme.

Price Control Deliverables

Bristol Water

PCD_1 BRL Leakage Overview

The expenditure for this PCD relates to the enhancement table line that relate to Leakage. We considered whether to include an outcome based ML/d for this activity, but much of the activity has multiple drivers and benefits (including proportionate allocation to base), such as water quality contacts. However, the individual drivers were too complicated to monitor individually (e.g. flow regulators, mains repaired or replaced etc. This expenditure is also proportionately allocated to base and therefore this only leaves MI/d as a plausible driver. Therefore, we use the annual MI/d reduction, which we intend to be off the 2024/25 actual level of leakage delivered. This will avoid duplication with the ODI for leakage. For this reason we calculate the PCD value without the reduction from the ODI benefit.

The split of cost by activity is shown below:

CW 3 line expenditure	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total
CW3.49	Leakage improvements delivering benefits in 2025- 2030; SDB totex	6.162	6.162	6.162	6.163	6.163	30.814

We set out the total spend and volume reduction in the year, but propose to calculate based on the total AMP8 rate

PCD table

PCD_1 BRL	2025/26	2026/27	2027/28	2028/29	2029/30	AMP8
Leakage						
Totex £m	£6.162m	£6.162m	£6.162m	£6.163m	£6.163m	£30.814m
60% of Totex	£3.697m	£3.697m	£3.697m	£3.698m	£3.698m	£18.488m
Outcomes value	-	-	-	-	-	-
Net PCD value	£3.697m	£3.697m	£3.697m	£3.698m	£3.698m	£18.488m

Activity	-0.4MI/d	-1.0Ml/d	-1.7Ml/d	-2.2Ml/d	-2.6Ml/d	-7.9Ml/d
PCD rate						£2.340m / MI/d / annum
Time incentive rate						£0.027m /Mld per annum

	PCD_1 BRL Leakage
Description of price control deliverable	Reduction in leakage from 2024/25 actual level. The cumulative reduction on the baseline will for the adjustment at PR29.
Measurement and reporting	Delivery in terms of annual metering activity is expected to be a specific table line within the Annual Performance Report
Conditions on allowance	The PCD cannot apply to a cumulative increase in leakage on the 2024/25 baseline actual.
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.
Price control deliverable payment rate	£2.340m for each 1 MI/d reduction in leakage on the 2024/25 actual level of leakage. Time incentive rate of £0.027m/Mld/annum
Impact on performance in relation not performance commitments	Not applicable

PCD_2 BRL Metering

<u>Overview</u>

The expenditure for this PCD relates to the enhancement table lines that relate to Metering. The appropriate PCD is the number of meters for each individual type of metering.

CW 3 line expenditure £m	Name	2025/26	2026/27	2027/28	2028/29	2029/30	AMP8
CW3.62	New meters requested by existing customers (optants); metering totex	2.360	2.360	2.360	2.360	2.360	11.800

CW3.74	Replacement of existing basic meters with AMI meters for residential customers; metering totex	1.128	1.128	1.128	1.128	1.128	5.642
CW3.83	Replacement of existing basic meters with AMI meters for business customers; metering totex	0.470	0.470	0.470	0.470	0.470	2.350
CW 7 line activity	Name	2025/26	2026/27	2027/28	2028/29	2029/30	AMP8
'000s							
CW7.6 + CW7.7	New optant meters installed for existing customers	7.144	6.867	6.603	6.350	6.108	33.072
CW7.11	Replacement of basic meters with smart meters for residential customers	22.083	22.083	22.083	22.083	22.083	110.415
CW7.13	Replacement of basic meters with smart meters for	1.934	1.934	1.934	1.934	1.934	9.670

As the profile is smooth, we use an average PCD rate, as calculated on the table below. We have combined meter optants and selective metering activities as the physical activity and cost is the same.

PCD table

PCD_2 BRL	New meters installed	•	Basic meters replaced with
Metering		smart meters domestic customers	smart meters Business customers
Totex £m	£11.800m	£5.642m	£2.351m
60% of Totex	£7.080m	£3.385m	£1.410m
Outcomes value	-	-	-
Net PCD value	£7.080m	£3.385m	£1.410m
Activity	33,072	110,415	9,670
PCD rate	£214 per meter	£31 per meter	£146 per meter
Time incentive rate	£2.50 per meter per annum	£0.36 per meter per annum	£1.70 per meter per annum

PCD_2 BRL	Metering					
Description of price control deliverable	New meters installed, basic meters replaced with smart meters for domestic and business customers.					
	Three separate activities with individual unit rates					
Measurement and reporting	Delivery in terms of annual metering activity is expected to be a specific table line within the Annual Performance Report, equivalen to CW7.6, CW7.7, CW7.11 and CW7.13 in the PR24 business plan					
Conditions on allowance	The activity is straightforward in terms of the description of the PCD					
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.					
Price control deliverable payment rate	£214 per new meter installed, £31 per domestic basic meter replaced with a smart meter and £146 per business basic meter replaced with a smart meter.					
	Time incentive rate as set out in PCD table					
Impact on performance in relation to performance commitments	Not applicable					

PCD_3 BRL Water Quality Schemes (Taste, Odour and Colour) <u>Overview</u>

There are three individual schemes that make up the expenditure in line CW3.93 which translates into PCD group PCDW19. We propose to treat them individually.

CW 3 line	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total
expenditure							
£m							

CW3.93	IN00002363- IN3V0048 Legislative Obligations - Quality driven mains renewal	2.060	2.060	2.060	2.060	2.060	10.300
CW3.93	IN00002306- N2V0116 LT Strategy	1.013	1.013	1.013	1.013	1.013	5.065
CW3.93	IN00002305- IN2V0115 Littleton & Cheddar SW	1.371	2.742	2.227	-	-	6.340
<u>PCD activity app</u>	oroach						
PCD	Activity	2025/26	2026/27	2027/28	2028/29	2029/30	
Quality mains renewal	Km main renewed	6.9	6.9	6.9	6.9	6.9	-
Colour Totex £m	£10.300m	1		£5.065m		£6.340m	
60% of Totex	£6.180m			£3.039m		£3.804m	
Outcomes value				-		-	
Net PCD value	Net PCD value £6.180m			£3.039m		£3.804m	
Activity	34.5km					Completion	in 2027/28
	e £179,130 per km main rene					£3.804m	
		·					
PCD rate Time incentive		er km main r				£0.222m pe	r annum
Time incentive	rate £2,090 pe per annur	er km main r m	renewed	our and Colou	ır)	£0.222m pe	r annum
Time incentive PCD_3 BRL Description of p	rate £2,090 per per annur Water Quali	er km main r n ity Schemes	enewed 6 (Taste, Odo	our and Colou er taste odou	-	£0.222m pe	r annum
Time incentive PCD_3 BRL Description of p	rate £2,090 pe per annur Water Quali	ity Schemes val and relin	enewed (Taste, Odd		-	£0.222m per	r annum
	rate £2,090 per per annur Water Quali price Mains renev ble improvemer LT Chlorine S	er km main r m ity Schemes val and relir nts Strategy imp	renewed (Taste, Odd ning to delive provements		r and colour	£0.222m per	r annum
	Confirmation of completion of Chlorine Strategy						
--	--						
	Confirmation of completion of UV upgrade at Littleton & Cheddar TW						
Conditions on allowance	Littleton & Cheddar are not split for the purposes of the UV due to the small value and the likely procurement of both sites.						
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.						
	Schemes have DWI completion notices which will be provided as evidence.						
Price control	£179,130 per km main renewed						
deliverable payment rate	£3,840m for completion of UV upgrades at Littleton & Cheddar TW						
Impact on performance in relation to performance commitments	Not applicable						

PCD_4 BRL Water Quality Schemes (Raw Water Deterioration / Resilience)

Overview

There are three individual schemes that make up the expenditure in line CW3.99 & CW3.120 which translates into PCD group PCDW14 and PCDW16 respectively. We propose to treat the schemes individually having combined the totex expenditure, which was proportionately allocated between the two for Littleton & Stowey.

CW 3 line expenditure £m	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total	Delivered date
CW3.99 & CW3.120	IN00002413- N2V0116 New WTW Littleton - Enhancement	0.000	0.000	9.232	20.494	20.494	50.220	2029/30
CW3.99 & CW3.120	IN00002410- IN2V0114 New WTW Stowey - Enhancement	5.089	10.180	10.413	0.458	0.458	26.598	2032/33
CW3.99	IN00002304- IN2V0114 PFAS	0.343	0.343	0.343	0.343	0.343	1.715	2029/30
CW3.99	IN00002303- IN2V0113 Cheddar	1.150	2.301	2.301	0.000	0.000	5.752	2027/28

The Littleton and Stowey Schemes are site upgrade to address raw water quality issues. The PFAS strategy are upgrades and enhanced monitoring at sites where there is a driver based on sampling risk. The Cheddar scheme sees slow sand filter covers being implemented following the AMP6 and AMP7 trial.

The Stowey scheme is multi-AMP and therefore we propose the total scheme value is captured on its completion and non-delivery considered at PR34.

PCD table

The PCD approach for each scheme is set out below:

PCD_4 BRL	Littleton TW Upgrade	Stowey TW	PFAS strategy	Cheddar slow sand
WQ RWD		Upgrade		filters
Totex £m	£50.220m	£26,598m	£1,715m	£5,752m
60% of Totex	£30.132m	£15.959m	£1.029m	£3.451m
Outcomes value	-	-	-	-
Net PCD value	£30.132m	£15.959m	£1.029m	£3.451m
Activity	Completion in 2029/30	Completion in 2032/33	Completion in 2029/30	Completion in 2027/28
PCD rate	£30.132m	£15.959m	£1.029m	£3.451m
Time incentive rate	£1.758m	£0.931m	£0.060m	£0.201m

PCD_4 BRL	Water Quality Raw Water Deterioration / Resilience
Description of price control deliverable	Upgrades at Littleton and Stowey Treatment Works. Covering slow sand filters at Cheddar. PFAS strategy and investment at groundwater works.
Measurement and reporting	Completion of schemes reported on in APR. Scheme reporting confirmed to the DWI, aligned with relevant DWI notice.
Conditions on allowance	Where DWI require additional monitoring, the completion is the construction completed date rather than the completion of the notice.
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.
	For Stowey which is a multi-AMP scheme, this PCD will apply at PR34, but progress will be reported on at PR29 and adjustments made if not on track.
	Schemes have DWI completion notices which will be provided as evidence.
Price control deliverable payment rate	As set out in PCD rate table for each individual scheme rate.

PCD_5 BRL Lead pipe replacement

Overview

The expenditure for this PCD relates to the enhancement table line that relate to lead communication, customer external and customer internal pipes replaced or relined. The appropriate PCD is the number of pipes replaced for each category. We also considered using the length of pipe replaced, but believe the measurement of meterage would add unnecessary reporting complexity.

CW 3 line expenditure	Name	2025/26	2026/27	2027/28	2028/29	2029/30	AMP8
CW3.108	Lead communication pipes replaced or relined; enhancement totex	0.929	0.929	0.929	0.929	0.929	4.644
CW3.111	External lead supply pipes replaced or relined; enhancement totex	1.858	1.858	1.858	1.858	1.858	9.288
CW3.114	Internal lead supply pipes replaced or relined; enhancement totex	0.929	0.929	0.929	0.929	0.929	4.644
CW 3 line activity	Name	2025/26	2026/27	2027/28	2028/29	2029/30	AMP8
CW6.21	Lead communication pipes replaced or relined; enhancement totex	630	630	630	630	630	3150

CW6.24	External lead supply pipes replaced or relined; enhancement totex	800	800	800	800	800	4000
CW6.26	Internal lead supply pipes replaced or relined; enhancement totex	400	400	400	400	400	2000

As the profile is smooth, we use an average PCD rate, as calculated on the table below.

<u>PCD table</u>

PCD_5 BRL	Lead communication pipes	External lead supply	Internal lead supply
Lead pipes		pipes	pipes
Totex £m	£4.644m	£9.288m	£4.644m
60% of Totex	£2.786m	£5.573m	£2.786m
Outcomes value	-	-	-
Net PCD value	£2.786m	£5.573m	£2.786m
Activity	3,150	4,000	2,000
PCD rate	£885 per pipe	£1,393 per pipe	£1,393 per pipe
Time incentive rate	£10.32 per pipe per annum	£16.25 per pipe per annum	£16.25 per pipe per annum

PCD_5 BRL	Lead pipes
Description of price control deliverable	Lead communication pipes replaced, external lead supply pipes replaced or relined, internal lead supply pipes replaced or relined
	Three separate activities with individual unit rates
Measurement and reporting	Delivery in terms of annual metering activity is expected to be a specific table line within the Annual Performance Report, equivalent to CW6.21, CW6.24 and CW6.26 in the PR24 business plan
Conditions on allowance	The activity is straightforward in terms of the description of the PCD
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.

Price control	£885 per lead communication pipe, £1,393 per internal or external
deliverable payment	lead supply pipe replaced or relined.
rate	Time incentive rate as set out in PCD table
Impact on performance in relation to performance commitments	Not applicable

SWB Clean Water

PCD_6 SWB Supply side schemes

Overview

The expenditure for this PCD relates to the enhancement table line CW3.43 and part of CW3.55 which relates to PCDW11 category. Although line CW3.52 was included by Ofwat in this PCD group, we have included this in PCD_8 because of the resilience interconnectors and proportional allocation of schemes makes a more appropriate PCD. We propose using scheme outputs rather than WAFU as a volume driver, to allow for flexibility in how schemes are implemented, and to avoid challenges with potential future abstraction licence changes, which remains a potential area of uncertainty at the time of creating these PCDs.

We have not included the 3 strategic SRO schemes included in CW3.55, as we have assumed these will be covered by the RAPID gateway process (with 100% allocated to company risk) and therefore a separate PCD is not required). These are Cheddar 2, Mendip Quarries and Poole.

The individual schemes and their delivery dates are set out below:

CW 3 line expenditure £m	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total	Delivery date
CW3.43	IN1M0026A - COL15 - Restormel WTW	3.793	2.866	11.463	11.463	2.866	32.449	2029/30
CW3.55	IN1M0052A - WRMP - BNW1 - Ampress borehole development	0.000	0.000	0.718	1.167	3.628	5.513	2029/30
CW3.43	IN1M0053A - WRMP - BNW14 - Ibsley Lake	0.172	0.172	0.172	0.172	0.172	0.858	2034/35

Ibsley Lake represents development money for a scheme due for delivery in 2034/35. Given the small scale of the development money, we question whether a PCD is required, but have included it based on the scheme being still considered at WRMP29.

PCD_6 SWB Supply side schemes	Restormel WTW	Ampress borehole	Ibsley Lake
Totex £m	£32.449m	£5.513m	£0.858m
60% of Totex	£19.470m	£3.308m	£0.515m
Outcomes value	-	-	-
Net PCD value	£19.470m	£3.308m	£0.515m
Activity	Scheme complete by 2034/35	Scheme complete by 2029/30	Scheme complete by 2034/35
PCD rate	£19.470m	£3.308m	£0.515m
Time incentive rate	£1.136m	£0.193m	£0.030m

PCD_6 SWB	Supply side schemes
Description of price control deliverable	Supply side schemes to increase capacity at Restormel WTW, develop a borehole at Ampress and development money for a 2034/35 scheme at Ibsley Lake
Measurement and reporting	Completion of schemes confirmation in relevant annual WRMP update and for Ibsley lake in WRMP29
Conditions on allowance	N/A
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each annual WRMP submission.
	For Ibsley Lake and Restormel, which are multi-AMP schemes, this PCD will apply at PR34, but progress will be reported on at PR29 and adjustments made if not on track.
Price control deliverable payment rate	As set out in PCD rate table for each scheme
Impact on performance in relation to performance commitments	The schemes are end of period and do not directly link to ODIs.

PCD_7 SWB Leakage

Overview

The expenditure for this PCD relates to the enhancement table line that relate to Leakage. We considered whether to include an outcome based ML/d for this activity, but much of the activity has multiple drivers and benefits (including proportionate allocation to base), such as water quality contacts. However, the individual drivers were too complicated to monitor individually (e.g. flow regulators, mains repaired or replaced etc. This expenditure is also proportionately allocated to base and therefore this only leaves MI/d as a plausible driver. Therefore, we use the annual MI/d reduction, which we intend to be off the 2024/25 actual level of leakage delivered. This will avoid duplication with the ODI for leakage. For this reason we calculate the PCD value without the reduction from the ODI benefit.

The split of cost by activity is shown overleaf:

CW 3 line expenditure £m	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total
CW3.49	Leakage improvements delivering benefits in 2025- 2030; SDB totex	13.249	13.616	15.527	13.830	11.680	67.904

We set out the total spend and volume reduction in the year, but propose to calculate based on the total AMP8 rate.

<u>PCD table</u>

PCD_7 SWB	2025/26	2026/27	2027/28	2028/29	2029/30	AMP8
Leakage						
Totex £m	13.249	13.616	15.527	13.830	11.680	67.904
60% of Totex	7.950	8.170	9.316	8.298	7.008	£40.742m
Outcomes value	-	-	-	-	-	-
Net PCD value	7.950	8.170	9.316	8.298	7.008	£40.742m
Activity	-3.2Ml/d	-6.4Ml/d	-9.6MI/d	-12.8Ml/d	-15.7Ml/d	-47.7Ml/d
PCD rate						£0.854m per MI/d
Time incentive rate						£0.010m /Mld per annum

PCD_7 SWB Leakage

Description of price	Reduction in leakage from 2024/25 actual level. The cumulative
control deliverable	reduction on the baseline will for the adjustment at PR29.

Measurement and reporting	Delivery in terms of annual metering activity is expected to be a specific table line within the Annual Performance Report
Conditions on allowance	The PCD cannot apply to a cumulative increase in leakage on the 2024/25 baseline actual.
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.
Price control deliverable payment rate	£0.854m for each 1 MI/d reduction in leakage on the 2024/25 actual level of leakage. Time incentive rate of £0.010m/Mld/annum
Impact on performance in relation not performance commitments	Not applicable

PCD_8 SWB Interconnectors and Resilience

Overview

There are seven individual schemes that make up the expenditure in line CW3.52 and CW3.120 lines which translates into part of PCD group PCDW11 & PCDW16. We propose to treat them individually and include as a single PCD group relating to interconnectors (whether for WRMP or resilience). There is one additional scheme under CW3.52 (Bratton Flemming) which is dealt with under PCD_10. There are 7 schemes in total.

CW 3 line expenditure	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total	Delivery date
CW3.120	IN1M0023A - Pynes to Allers (Cranbrook to Honiton)	3.352	8.762	15.808	0.000	0.000	27.922	2027-28
CW3.120	IN1M0024A - BW alderney-knapp mill pinch points	5.116	0.000	0.000	0.000	0.000	5.116	2025/26
CW3.52	IN1M0046A - WRMP - ROA17 - Littlehempston WTW - Dual supply main	1.422	1.070	4.276	4.276	1.070	12.114	2029/30
CW3.52	IN1M0047A - WRMP - WIM14 - Whitecross distribution upgrade	2.876	14.376	10.946	0.000	0.000	28.198	2027/28

CW3.120	IN1M0055A - Mayflower WTW to Littlehempston WTW (ROA20 - phased)	0.000	0.000	6.724	20.176	40.352	67.252	2034/35
CW3.120	IN1M0056A - Brent Tor to Launceston (COL25)	0.000	3.644	10.932	21.366	0.000	35.942	2031-32
CW3.120	IN1M0057A - Roadford to Colliford via Saltash (COL22)	0.822	2.740	0.830	0.000	0.000	4.392	2028-29

<u>PCD table</u>

The PCD approach for each scheme is set out below

PCD_8 SWB WQ Raw water quality schemes	Pynes to Allers	•	Littlehempston dual supply		Mayflower to Littlehempston	Brent Tor to Launceston	Roadford to Colliford via Saltash
Totex £m	£27,922m	£5.116m	£12.114m	£28.198m	£67.252m	£35.942m	£4.392m
60% of Totex	£16.753m	£3.070m	£7.268m	£16.919m	£40.351m	£21.565m	£2.635m
Outcomes value	-	-	-	-	-	-	-
Net PCD value	£16.753m	£3.070m	£7.268m	£16.919m	£40.351m	£21.565m	£2.635m
Activity	Project completion 2027/28	Project completion 2025/26	Project completion 2029/30	Project completion 2027/28	Project completion 2034/35	Project completion 2031/32	Project completion 2028/29
PCD rate	£16.753m	£3.070m	£7.268m	£16.919m	£40.351m	£21.565m	£2.635m
Time incentive rate	£0.977m	£0.179m	£0.433m	£0.987m	£2.353m	£1.258m	£0.154m

PCD_8 SWB Interconnectors and Resilience

Description of price control deliverable	Seven individual schemes as set out in PCD table – Pynes to Allers, Alderney to Knapp Mill, Littlehempston dual supply, Whitecross distribution upgrade, Mayflower to Littlehempston, Brent Tor to Launceston, Roadford to Colliford via Saltash,
Measurement and reporting	Completion of schemes reported on in APR. Schemes relevant to EA or DWI
Conditions on allowance	Where DWI require additional monitoring, the completion is the construction completed date rather than the completion of the notice.
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.
	For Mayflower and Brent Tor which are multi-AMP schemes, this PCD will apply at PR34, but progress will be reported on at PR29 and adjustments made if not on track.
	Schemes have DWI completion notices which will be provided as evidence.
Price control deliverable payment rate	As set out in PCD rate table for each scheme
Impact on performance in relation to performance commitments	Not applicable – CRI risk benefits should not be adjusted as an ODI delivery against PCDs.

PCD_9 SWB Metering

Overview

The expenditure for this PCD relates to the enhancement table lines that relate to Metering. The appropriate PCD is the number of meters for each individual type of metering. We have not included CW3.89, smart metering infrastructure within the PCD value as it relates to support infrastructure and is of a relatively low value of £7.003m. We preferred this to allocating it over the other smart meter activity (which is multiple AMP) and then having non-cost reflective unit rates.

CW 3 line expenditure £m	Name	2025/26	2026/27	2027/28	2028/29	2029/30
CW3.62	New meters requested by existing customers (optants); metering totex	2.013	1.917	1.834	1.761	1.699

CW3.65	New meters introduced by companies for existing customers; metering totex	2.084	2.075	2.066	2.057	2.049
CW3.74	Replacement of existing basic meters with AMI meters for residential customers; metering totex	4.120	4.412	4.713	5.004	5.296
CW3.77	Replacement of existing AMR meters with AMI meters for residential customers; metering totex	1.759	1.896	2.032	2.169	2.306
CW3.83	Replacement of existing basic meters with AMI meters for business customers; metering totex	0.548	0.554	0.560	0.566	0.572
CW3.86	Replacement of existing AMR meters with AMI meters for business customers; metering totex	0.061	0.061	0.062	0.063	0.064
CW 3 line expenditure	Name	2025/26	2026/27	2027/28	2028/29	2029/30
CW7.6	New optant meters installed for existing customers	6.286	5.985	5.724	5.498	5.303

CW7.7	New selective meters installed for existing customers (000s)	6.952	6.908	6.867	6.828	6.792
CW7.11	Replacement of basic meters with smart meters for residential customers	55.885	55.885	55.885	55.885	55.885
CW7.12	Replacement of AMR meter with AMI meters for residential customers (000s)	19.635	19.635	19.635	19.635	19.635
CW7.13	Replacement of basic meters with smart meters for business customers	5.123	5.123	5.123	5.123	5.123
CW7.14	Replacement of existing AMR meters with AMI meters for business customers; metering totex	0.569	0.569	0.569	0.569	0.569

As the profile is smooth, we use an average PCD rate, as calculated on the table below. We have combined meter optants and selective metering activities as the physical activity and cost is the same.

PCD table

PCD_9 SWB Metering	New meters installed (optants)	New meters installed (selective)	Basic meters replaced with AMI smart meters domestic customers	AMR meters replaced with AMI meters domestic customers	Basic meters replaced with AMI smart meters business customers	AMR meters replaced with AMI meters business customers
Totex £m	£9.224m	£10.332m	£23.546m	£10.163m	£2.802m	£0.310m
60% of Totex	£5.534m	£6.199m	£14.128m	£6.098m	£1.618m	£0.186m
Outcomes value	-	-	-	-	-	-
Net PCD value	£5.534m	£6.199m	£14.128m	£6.098m	£1.618m	£0.186m
Activity	28,796	34,347	279,425	98,175	25,615	2,845
PCD rate	£192 per meter	£180 per meter	£51 per meter	£62 per meter	£66 per meter	£65 per meter
Time incentive rate	£2.24 per meter per annum	£2.11 per meter per annum	£0.59 per meter per annum	£0.72 per meter per annum	£0.77 per meter per annum	£0.76 per meter per annum

PCD_9 SWB Metering

Description of price control deliverable	New meters installed, basic meters replaced with smart meters for domestic and business customers.
	Three separate activities with individual unit rates
Measurement and reporting	Delivery in terms of annual metering activity is expected to be a specific table line within the Annual Performance Report, equivalent to CW7.6, CW7.7, CW7.11, CW7.12, CW7.13 and CW7.14 in the PR24 business plan
Conditions on allowance	The activity is straightforward in terms of the description of the PCD
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.
Price control deliverable payment rate	£192 per meter optant installer, £180 per selective meter installed, £51 per domestic basic meter replaced with an AMI smart meter, £62 per domestic AMR meter replaced with an AMI smart meter, £66 per business basic and £65 per AMR meter replaced with an AMI meter.
	Time incentive rate as set out in PCD table
Impact on performance in relation to performance commitments	Not applicable

PCD_10 SWB Water Quality Schemes

Overview

There are ten individual schemes that make up the expenditure in line CW3.93 and CW3.99 lines which translates into part of PCD group PCDW13 & PCDW14. There is an element of CW3.120 proportionately allocated (Bratton Flemming). We propose to treat them individually and include as a single PCD group relating to water quality schemes, due to proportional allocation between the two codes. There are ten schemes in total.

CW 3 line expenditure	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total	Delivery date / Activity
	Allers Upgrade Chlorine & pH Correction Dosing	1.952	0.006	0.012	0.012	0.012	1.992	2025/26
CW3.93								
CW3.93 & CW3.99	Dotton- Manganese Filters, UV or membranes and disinfection	8.504	8.504	0.030	0.061	0.061	17.160	2026/27
CW3.93 & CW3.99	Greatwell Additional Dual Cell Contact Tank	2.325	2.325	0.020	0.041	0.041	4.752	2026/27
CW3.99 & CW3.120	IN2D0005A Bratton Flemming GAC 25 mins EBCT - Emhancement	5.293	5.293	5.693	0.219	0.219	16.719	2027/28
CW3.93	IN2L0004 Woodgreen New filters	7.842	7.842	0.017	0.035	0.035	15.771	2026/27
CW3.93	IN2L0007 PFAS research project	0.343	0.343	0.343	0.343	0.343	1.715	2029/30
CW3.93 & CW3.99	IN2L0008 Lowermoor GAC	0.000	0.000	0.000	7.669	7.735	15.404	2029/30
CW3.93 & CW3.99	IN2L0018A Mobile PAC	1.803	0.007	0.013	0.013	0.015	1.851	2025/26

CW3.93	IN3L0007A - Quality driven mains renewal	4.292	4.292	4.292	9.872	9.872	32.620	2025/26	
CW3.93	Pynes upgraded chem dosing	2.249	0.006	0.011	0.011	0.011	2.288	2025/26	_

<u>PCD table</u>

The PCD approach for each scheme is set out below

PCD_10 SWB Water quality schemes	Allers upgrade	Dotton	Greatwell	Bratton Flemming	Woodgreen
Totex £m	£1.992m	£17.160m	£4.752m	£16.719m	£15.771m
60% of Totex	£1.195m	£10.296m	£2.851m	£10.031m	£9.462m
Outcomes value	-	-	-	-	-
Net PCD value	£1.195m	£10.296m	£2.851m	£10.031m	£9.462m
Activity	Project completion 2025/26	Project completion 2026/27	Project completion 2026/27	Project completion 2027/28	Project completion 2026/27
PCD rate	£1.195m	£10.296m	£2.851m	£10.031m	£9.462m
Time incentive rate	£0.070m	£0.601m	£0.166m	£0.585m	£0.552m

PCD_10 SWB Water quality schemes	PFAS Research project	Lowermoor GAC	Mobile PAC	Mains renewal for water quality	Pynes
Totex £m	£1.715m	£15.404m	£1.851m	£32.620m	£2.288m
60% of Totex	£1.029m	£9.243m	£1.110m	£19.572m	£1.373m
Outcomes value	-	-	-	-	-
Net PCD value	£1.029m	£9.243m	£1.110m	£19.572m	£1.373m
Activity	Project completion 2029/30	Project completion 2029/30	Project completion 2025/26	87.120km main	Project completion 2025/326
PCD rate	£1.029m	£9.243m	£1.110m	£0.225m per km main	£1.373m
Time incentive rate	£0.060m	£0.539m	£0.065m	£2,621 per km main per annum	£2.353m

PCD_10 SWB	Water Quality Schemes				
Description of price control deliverable	Nine individual water quality projects as set out in PCD table – Allers upgrade, Dotton, Greatwell, Bratton Flemming, Woodgreen, PFAS research project, Lowermoor GAC, Mobile PAC, Pynes.				
	Mains relining or replacement for water quality of 87.120km over AMP8.				
Measurement and reporting	Completion of schemes reported on in APR. Scheme reporting confirmed to the DWI, aligned with relevant DWI notice.				
Conditions on allowance	Where DWI require additional monitoring, the completion is the construction completed date rather than the completion of the notice.				
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.				
	Schemes have DWI completion notices which will be provided as evidence.				
Price control deliverable payment rate	As set out in PCD rate table for each individual scheme rate. Mains repairs are £0.225m per km main with time incentive rate of £2,621 per km main per annum.				
Impact on performance in relation to performance commitments	Not applicable				

PCD_11 SWB Lead pipe replacement

<u>Overview</u>

The expenditure for this PCD relates to the enhancement table line that relate to lead communication, customer external and customer internal pipes replaced or relined. The appropriate PCD is the number of pipes replaced for each category. We also considered using the length of pipe replaced, but believe the measurement of meterage would add unnecessary reporting complexity.

CW 3 line	Name	2025/26	2026/27	2027/28	2028/29	2029/30
expenditure						
£m						

CW3.108	Lead communication pipes replaced or relined; enhancement totex	2.067	2.067	2.067	2.067	2.067
CW3.111	External lead supply pipes replaced or relined; enhancement totex	4.134	4.134	4.134	4.134	4.134
CW3.114	Internal lead supply pipes replaced or relined; enhancement totex	2.067	2.067	2.067	2.067	2.067

CW 3 line expenditure	Name	2025/26	2026/27	2027/28	2028/29	2029/30
	Lead communication pipes replaced or relined; enhancement totex					
CW6.21		1,444	1,444	1,444	1,444	1,444
	External lead supply pipes replaced or relined; enhancement totex					
CW6.24		2,888	2,888	2,888	2,888	2,888
	Internal lead supply pipes replaced or relined; enhancement totex					
CW6.26		1,444	1,444	1,444	1,444	1,444

As the profile is smooth, we use an average PCD rate, as calculated on the table below.

PCD table

PCD_11 SWB	Lead communication pipes	External lead supply	Internal lead supply pipes	
Lead pipes		pipes		
Totex £m	£10.336m	£20.671m	£10.336m	
60% of Totex £6.201m		£12.403m £6.201		
Outcomes value	-	-	-	
Net PCD value	£6.201m	£12.403m	£6.201m	
Activity	7,220	14,440	7,220	
PCD rate	£859 per pipe	£859 per pipe	£859 per pipe	
Time incentive rate	£10.02 per pipe per annum	£10.02 per pipe per annum	£10.02 per pipe per annum	

PCD_11 SWB Lead pipes

Description of price control deliverable	Lead communication pipes replaced, external lead supply pipes replaced or relined, internal lead supply pipes replaced or relined
	Three separate activities with individual unit rates
Measurement and reporting	Delivery in terms of annual metering activity is expected to be a specific table line within the Annual Performance Report, equivalent to CW6.21, CW6.24 and CW6.26 in the PR24 business plan
Conditions on allowance	The activity is straightforward in terms of the description of the PCD
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.
Price control deliverable payment	£859 per lead communication pipe, internal or external lead supply pipe replaced or relined.
rate	Time incentive rate as set out in PCD table
Impact on performance in relation to performance commitments	Not applicable

South West Water Wastewater

PCD_12 SWB Storm overflows <u>Overview</u>

The expenditure for this PCD relates to the enhancement table lines that relate to Storm overflows, which is the total of PCD groups PCDWW5 & PCDWW6. We considered other cost drivers in the specific data request, but concluded that the individual cost of each scheme in the determination should reflect the output PCD. There are a total 283 storm overflow interventions included in the table, and the expenditure in any year can vary and the cost of schemes also varies significantly. Therefore we consider that for a PCD an output based activity level should be preferred. For this reason we also calculate the PCD value without the reduction from the ODI benefit.

The split of cost by CWW3 table line is shown below.

CWW 3 line expenditure	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total
CWW3.18	Increase storm tank capacity at STWs - grey solution; (WINEP/NEP) wastewater totex	7.730	7.898	15.677	15.473	18.470	65.248
CWW3.21	Increase storm system attenuation / treatment on a STW - green solution; (WINEP/NEP) wastewater totex	0.165	0.171	0.336	0.333	0.400	1.405
CWW3.24	Storage schemes to reduce spill frequency at CSOs etc - grey solution; (WINEP/NEP) wastewater totex	22.956	30.615	48.378	52.410	60.018	214.377
CWW3.27	Storage to reduce spill frequency at CSOs etc - green solution; (WINEP/NEP) wastewater totex	0.018	0.021	0.038	0.038	0.046	0.161
CWW3.30	Storm overflow - discharge relocation (WINEP/NEP) wastewater totex	0.062	0.067	0.126	0.129	0.150	0.534
CWW3.33	Storm overflow - increase in combined sewer / trunk sewer capacity; (WINEP/NEP) wastewater totex	0.006	0.005	0.010	0.010	0.013	0.045

Total		67.378	76.830	138.891	142.671	167.598	593.368
CWW3.48	Storm overflow - new / upgraded screens (WINEP/NEP) wastewater totex	0.817	0.864	1.671	1.684	2.008	7.043
CWW3.42	Storm overflow - infiltration management: wastewater totex	11.896	12.145	24.110	23.798	28.399	100.348
CWW3.39	Storm overflow - source surface water separation; (WINEP/NEP) wastewater totex	23.729	25.044	48.545	48.796	58.094	204.208

PCD calculation

The number of storm overflow schemes to be completed each year and the total totex.

PCD_12 SWB	2025/26	2026/27	2027/28	2028/29	2029/30	AMP8
Storm overflows						
Totex £m	67.378	76.830	138.891	142.671	167.598	593.368
60% of Totex, £m Outcomes value	40.427 -	46.098 -	83.335 -	85.603 -	100.559 -	356.021 -
Net PCD value	40.427	46.098	83.335	85.603	100.559	356.021
Activity	11	23	73	44	132	283
PCD rate						£1.258m
Time incentive rate						£14,770 per storm overflow per annum

PCD_12 SWB Storm Overflows

Description of price control deliverable	We have 283 individual storm overflow outputs with a range of annual delivery dates. We propose tracking the change for the individual storm overflows, using our standard PCD formulation
Measurement and reporting	Delivery of schemes against the delivery date will be set out in our APR submission / annual WINEP reporting to the EA.
Conditions on allowance	We have proposed a separate storm overflows uncertainty mechanism with ex-post true up of cost and activity based on the same efficiency assessment that Ofwat ultimately use at PR24. If this proposal is accepted, then there is no need for this separate PCD – the same approach would apply to the calculation of the ex-post uncertainty mechanism.
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.
Price control deliverable payment rate	£1.258m per storm overflow at the point of planned completion date. We propose however this average rate should be replaced by the specific project calculation, as listed in both the network and STW project list in the IN23/05 data request, with costs to be updated to the final allowances.
Impact on performance in relation not performance commitments	There is a separate average spills ODI but we do not take this into account of the output based PCD that we propose.

PCD_13 SWB Phosphorus removal

Overview

The expenditure for this PCD relates to the enhancement table lines that relate to Phosphorus removal, which is the total of PCD group PCDWW10, CWW3 lines 3.66 & 3.69.

Therefore we consider that for a PCD an output based activity level should be preferred. For this reason we also calculate the PCD value without the reduction from the ODI benefit.

The split of cost by CWW3 table line is shown below.

CWW 3 line expenditure £m	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total
	Treatment for phosphorus removal (chemical) (WINEP/NEP) wastewater totex	13.942	23.833	25.840	19.864	12.249	95.728
CWW3.66							

	Treatment for phosphorus removal (biological) (WINEP/NEP) wastewater	1.442	3.238	3.597	3.238	1.541	13.056
CWW3.69	totex						

The individual schemes for these two lines are set out below:

CWW 3 line expenditure £m	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total	Delivery date / Activity
CWW3.69	ABBOTSHAM_STW_ABBOTSHAM	0.773	0.773	0.773	0.773	0.047	3.139	2028/29
CWW3.69	FENITON_STW_FENITON	0.000	1.796	2.155	1.796	1.437	7.184	2029/30
CWW3.69	NEWTON FERRERS_STW_NEWTON FERRERS	0.669	0.669	0.669	0.669	0.057	2.733	2028/29
CWW3.66	DRIMPTON STW	0.000	0.578	0.593	0.578	0.562	2.311	2029/30
CWW3.66	HAWKCHURCH STW	0.000	0.593	0.712	0.593	0.475	2.373	2029/30
CWW3.66	ST MABYN STW	0.000	0.602	0.722	0.602	0.482	2.408	2029/30
CWW3.66	ST TEATH STW	0.000	0.649	0.779	0.649	0.519	2.596	2029/30
CWW3.66	DOLTON_STW_DOLTON	0.000	0.830	0.996	0.830	0.664	3.320	2029/30
CWW3.66	AYLESBEARE_STW_AYLESBEARE	0.646	0.646	0.646	0.646	0.086	2.670	2028/29
CWW3.66	CAMELFORD_STW_CAMELFORD	1.141	0.666	0.444	0.132	0.132	2.515	2027/28
CWW3.66	COLYTON_STW_COLYTON	1.180	1.180	1.180	1.180	0.157	4.877	2028/29
CWW3.66	HALWILL_STW_HALWILL	0.000	0.730	0.876	0.730	0.583	2.919	2029/30
CWW3.66	HALBERTON_STW_HALBERTON	0.000	0.848	1.018	0.848	0.678	3.392	2029/30
CWW3.66	LUXULYAN_STW_ST_AUSTELL	0.051	2.068	4.085	2.068	0.292	8.564	2028/29
CWW3.66	NORTH FAL_STW_ST STEPHENS	1.560	1.560	1.560	1.560	0.287	6.527	2028/29
CWW3.66	PELYNT_STW_PELYNT	0.000	0.877	1.053	0.877	0.702	3.509	2029/30
CWW3.66	DELABOLE_STW_DELABOLE	0.720	0.720	0.720	0.720	0.111	2.991	2028/29
CWW3.66	PLYMTREE_STW_PLYMTREE	0.000	0.751	0.902	0.751	0.601	3.005	2029/30
CWW3.66	MENAGWINS_STW_ST AUSTELL	0.000	2.592	2.610	2.592	2.573	10.367	2029/30
CWW3.66	KILMINGTON_STW_AXMINSTER	2.252	0.700	0.943	0.282	0.282	4.459	2027/28
CWW3.66	NANSTALLON_STW_BODMIN	2.556	1.496	0.997	0.349	0.349	5.747	2027/28
CWW3.66	SCARLETTS WELL_STW_BODMIN	1.602	1.470	0.663	0.193	0.193	4.121	2027/28
CWW3.66	TATWORTH_STW_TATWORTH	1.196	0.719	0.479	0.125	0.125	2.644	2027/28
CWW3.66	ST DENNIS_STW_ST DENNIS	1.038	1.038	1.038	1.038	0.177	4.329	2028/29
CWW3.66	ST GENNYS_STW_ST GENNYS	0.000	0.644	0.773	0.644	0.515	2.576	2029/30
CWW3.66	WOOLSERY_STW_WOOLFARDISWORTHY	0.000	0.825	0.989	0.825	0.660	3.299	2029/30

PCD calculation

The PCD calculation for each output is shown below

PCD_13 SWB Phosphorus removal £m	Totex £m	60% of Totex, £m	Outcomes value	Net PCD value / rate	Delivery date	Time incentive rate
ABBOTSHAM_STW_ABBOTSHAM	3.139	1.883	-	1.883	2028/29	0.110
FENITON_STW_FENITON	7.184	4.310	-	4.310	2029/30	0.251
NEWTON FERRERS_STW_NEWTON FERRERS	2.733	1.640	-	1.640	2028/29	0.096
DRIMPTON STW	2.311	1.387	-	1.387	2029/30	0.081
HAWKCHURCH STW	2.373	1.424	-	1.424	2029/30	0.083
ST MABYN STW	2.408	1.445	-	1.445	2029/30	0.084
ST TEATH STW	2.596	1.558	-	1.558	2029/30	0.091
DOLTON_STW_DOLTON	3.320	1.992	-	1.992	2029/30	0.116
AYLESBEARE_STW_AYLESBEARE	2.670	1.602	-	1.602	2028/29	0.093
CAMELFORD_STW_CAMELFORD	2.515	1.509	-	1.509	2027/28	0.088
COLYTON_STW_COLYTON	4.877	2.926	-	2.926	2028/29	0.171
HALWILL_STW_HALWILL	2.919	1.751	-	1.751	2029/30	0.102
HALBERTON_STW_HALBERTON	3.392	2.035	-	2.035	2029/30	0.119
LUXULYAN_STW_ST_AUSTELL	8.564	5.138	-	5.138	2028/29	0.300
NORTH FAL_STW_ST STEPHENS	6.527	3.916	-	3.916	2028/29	0.228
PELYNT_STW_PELYNT	3.509	2.105	-	2.105	2029/30	0.123
DELABOLE_STW_DELABOLE	2.991	1.795	-	1.795	2028/29	0.105
PLYMTREE_STW_PLYMTREE	3.005	1.803	-	1.803	2029/30	0.105
MENAGWINS_STW_ST AUSTELL	10.367	6.220	-	6.220	2029/30	0.363
KILMINGTON_STW_AXMINSTER	4.459	2.675	-	2.675	2027/28	0.156
NANSTALLON_STW_BODMIN	5.747	3.448	-	3.448	2027/28	0.201
SCARLETTS WELL_STW_BODMIN	4.121	2.473	-	2.473	2027/28	0.144
TATWORTH_STW_TATWORTH	2.644	1.586	-	1.586	2027/28	0.093
ST DENNIS_STW_ST DENNIS	4.329	2.597	-	2.597	2028/29	0.152
ST GENNYS_STW_ST GENNYS	2.576	1.546	-	1.546	2029/30	0.090
WOOLSERY_STW_WOOLFARDISWORTHY	3.299	1.979	-	1.979	2029/30	0.115
ST COLUMB_STW_ST COLUMB	4.209	2.525	-	2.525	2029/30	0.147

PCD_13 SWB	Phosphorus Schemes
Description of price control deliverable	We have 27 biological and chemical P removal schemes. We propose tracking the change for the individual projects, using our standard PCD formulation
Measurement and reporting	Delivery of schemes against the delivery date will be set out in our APR submission / annual WINEP reporting to the EA.
Conditions on allowance	The activity is straightforward in terms of the description of the PCD
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.
Price control deliverable payment rate	The individual project rate and time value for money is set out in the separate table above.
Impact on performance in relation not performance commitments	Not applicable

PCD_14 SWB Nutrient schemes

Overview

The expenditure for this PCD relates to the enhancement table lines that relate to nutrient schemes, which is the PCD group PCDWW11. There are a total 20 nutrient schemes, that range in totex value from £0.9m to £2.5m, 17 of which are for delivery in 2029/30. We use an average project value given that most of the schemes are end of period delivery and given the number of similar sized schemes. There are 10 additional schemes with a total value of £0.289m which we ignore from PCD calculation below due to the immateriality and to avoid affecting the output rate.

The totex cost for table line CWW3.72 for this PCD is shown below.

CWW 3 line expenditure	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total
CWW3.72	Treatment for nutrients (N or P) and / or sanitary determinands, nature based solution (WINEP/NEP) wastewater totex	1.759	10.125	11.413	10.125	8.240	41.662

PCD calculation

The number of nutrient schemes to be completed each year and the total totex.

PCD_14 SWB	2025/26	2026/27	2027/28	2028/29	2029/30	AMP8
Nutrient Schemes						
Totex £m	1.759	10.125	11.413	10.125	8.240	41.662
60% of Totex, £m	1.055	6.075	6.848	6.075	4.944	24.997
Outcomes value	-	-	-	-	-	-
Net PCD value	1.055	6.075	6.848	6.075	4.944	24.997
Activity	1	0	0	2	17	20
PCD rate						£1.250m
Time incentive rate						£14,582 per scheme per year

PCD_14 SWB Nutrient schemes

Description of price control deliverable	We have 20 individual outputs with a range of annual delivery dates, although most are 2029/30.
Measurement and reporting	Delivery of schemes against the delivery date will be set out in our APR submission / annual WINEP reporting to the EA.
Conditions on allowance	None
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.
Price control deliverable payment rate	£1.250m per scheme at the point of planned completion date. Time incentive rate £14,582 per scheme per annum delayed.

Impact on Not applicable performance in relation not performance commitments

PCD_15 SWB Sanitary parameters Overview

The expenditure for this PCD relates to the enhancement table lines that relate to sanitary determinands, nature based solution (WINEP/NEP) wastewater totex, which is the total of PCD group PCDWW12. There are a total 20 sanitary parameter schemes, with the largest scheme at c£2m. All schemes are due for completion in 2029/30. There are a further 10 schemes with an immaterial £0.289m. We include this value within the 20 schemes to avoid affecting the average scheme value adversely. Therefore we consider that for a PCD an output based activity level should be preferred. For this reason we also calculate the PCD value without the reduction from the ODI benefit.

The totex cost for table line CWW3.75 for this PCD is shown below.

CWW 3 line expenditure £m	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total
	Treatment for tightening of sanitary parameters (WINEP/NEP) wastewater totex						
CWW3.75		0.003	10.091	11.493	10.090	8.688	40.365

PCD calculation

The number of sanitary schemes to be completed each year and the total totex.

PCD_15 5SWB	2025/26	2026/27	2027/28	2028/29	2029/30	AMP8
Sanitary parameters £m						
Totex £m	0.003	10.091	11.493	10.09	8.688	40.365
60% of Totex, £m	0.002	6.055	6.896	6.054	5.213	24.219
Outcomes value	-	-	-	-	-	-

Net PCD value						24.219
	0.002	6.055	6.896	6.054	5.213	
Activity					20	20
PCD rate						£1.211m
Time incentive rate						£70,641 per scheme

PCD_15 SWB	Sanitary parameters
Description of price control deliverable	We have 20 individual outputs with a delivery date of 2029/30, but expenditure throughout AMP8. We propose tracking the total scheme delivery at the end of the AMP
Measurement and reporting	Delivery of schemes against the delivery date will be set out in our APR submission / annual WINEP reporting to the EA.
Conditions on allowance	None
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.
Price control deliverable payment rate	£1.211m per scheme at the point of planned completion date. Time incentive rate £70,641 per scheme.
Impact on performance in relation not performance commitments	Not applicable

PCD_16 SWB Bioresources

Overview

We consider Bioresource to be a pair of schemes, which are linked to table lines CWW3.145, CWW3.164 and CWW3.181 due to proportional allocation, and therefore PCD groups PCDWW25, PCDWW30 and PCDWW35 respectively. We propose that the PCD operates as a single project albeit it covers two sites. There is a significant amount of uncertainty and we have not included potential IED related costs that may be required and are therefore uncertain. Therefore, we treat this as a single project and propose an assessment of the delivery against the overall strategy at PR29. The plants are due to be fully operational in 2029/30. For bioresources we have assumed for PCD purposes that a cost sharing rate applies, following the review of this scheme. We note that if the standard 100% bioresources company totex risk allocation applies for bioresources enhancement, then the approach to PCDs proposed by Ofwat may not apply (customers sufficiently protected by enhancement case reviews and 100% cost share applying to the company).

The totex cost for table line CWW3.72 for this PCD is shown below.

CWW 3 line expenditure £m	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total
CWW3.145	Sludge treatment - Thickening and/or dewatering; (WINEP/NEP) totex	2.532	6.330	7.596	6.330	2.532	25.319
CWW3.164	Sludge enhancement (growth); enhancement totex	1.917	4.793	5.751	4.793	1.918	19.173
CWW3.181	Additional line 1; enhancement wastewater/bioresources capex	13.873	20.810	0.000	0.000	0.000	34.683

PCD calculation

The number of sanitary schemes to be completed each year and the total totex

PCD_16 SWB	2025/26	2026/27	2027/28	2028/29	2029/30	AMP8
Bioresources £m						
Totex £m						79.175
	18.322	31.933	13.347	11.123	4.450	
60% of Totex, £m	9.843	16.284	4.557	3.798	1.519	36.001
Outcomes value	-	-	-	-	-	-
Net PCD value	9.843	16.284	4.557	3.798	1.519	36.001
Activity						2 schemes completed
PCD rate						£36.001m
Time incentive rate						£2.771m

PCD_16

SWB Bioresources

<i>Description of price control deliverable</i>	We have 2 individual plants due to be delivered in 2029/30. The total value of the project is largely allocated to base expenditure and this project includes a number of sludge drivers, including an element of storage and growth. Therefore we propose the completion of the strategy provides suitable customer protection to be assessed at PR29.
Measurement and reporting	Delivery of schemes against the delivery date will be set out in our APR submission / annual WINEP reporting to the EA, for the elements of both projects that have statutory drivers, but will also indicate completion of the whole scheme.
Conditions on allowance	None
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.
Price control deliverable payment rate	£36.001m with time value adjustment of £2.771m
Impact on performance in relation not performance commitments	Not applicable

PCD_17 SWB First Time Sewerage

Overview

There are four individual schemes and a small (£1.0m) element linked to potential other small projects. We propose using PCDs for the specific projects on the Isle of Scilly. The schemes are in CWW3.161 table line

CWW 3 line expenditure £m	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total	Delivery date
	IN00001061- IN5F0102 Wastewater resilience for							
CWW3.161	IoS St Marys	2.684	5.124	1.047	0.196	0.196	9.248	2027/28
	IN00001060- IN5F0101 Wastewater resilience for							
CWW3.161	loS Bryher	0.963	2.562	2.562	1.373	0.196	7.657	2028/29
CWW3.161	IN00001059- IN5F0100 Wastewater resilience for IoS St Agnes	0.000	0.000	2.245	3.902	0.887	7.034	2029/30
CVV VV J.101	105 St Agries	0.000	0.000	2.273	5.502	0.007	7.034	2023/30

	IN00000235- IN5F0001 first time sewerage IoS St Martins							
CWW3.161		6.709	1.955	0.005	0.006	0.007	8.682	2026/27

<u>PCD table</u>

The PCD approach for each scheme is set out below

PCD_17 SWB	St Marys	Bryher	St Agnes	St Martins
First Time Sewerage				
Totex £m	£9.248m	£7,657m	£7.034m	£8.682m
60% of Totex	£5.549m	£4.594m	£4.221m	£5.209m
Outcomes value	-	-	-	-
Net PCD value	£5.549m	£4.594m	£4.221m	£5.209m
Activity	Project completion 2027/28	Project completion 2028/29	Project completion 2029/30	Project completion 2026/27
PCD rate	£5.549m	£4.594m	£4.221m	£5.209m
Time incentive rate	£0.324m	£0.268m	£0.246m	£0.304m

PCD_17 SWB First Time Sewerage

Description of price control deliverable	There are four First Tiem Sewerage Schemes on the Isles of Scilly
Measurement and reporting	Completion of schemes reported on in APR
Conditions on allowance	None
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.
Price control deliverable payment rate	As set out in PCD rate table for each scheme
Impact on performance in relation to performance commitments	Not applicable

PCD_18 SWB FFT schemes

Overview

The expenditure for this PCD relates to the enhancement table lines that relate to increases to Full to Flow Treatment, which is the total of PCD group PCDWW4, CWW3 line 3.15

Therefore we consider that for a PCD an output based activity level should be preferred. For this reason we also calculate the PCD value without the reduction from the ODI benefit.

The split of cost by CWW3 table line is shown below

CWW 3 line expenditure	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total
CWW3.15	Increase flow to full treatment; (WINEP/NEP) wastewater totex	32.254	29.454	27.619	20.176	31.270	140.773

The individual schemes for these two lines are set out below:

CWW 3 line expenditure £m	Name	2025/26	2026/27	2027/28	2028/29	2029/30	Total	Delivery date / Activity
CWW3.15	CROYDE STW_SO_CROYDE	0.290	0.509	0.820	1.199	2.274	5.091	2029-30
CWW3.15	FALMOUTH STW_SO_FALMOUTH	11.421	8.981	4.278			24.681	2027-28
CWW3.15	FOWEY STW_SSO_FOWEY	3.167	2.858	2.983			9.009	2027-28
CWW3.15	LADOCK VALLEY STW_SSO_TRESILLIAN	0.767	1.344	2.167	3.167	6.008	13.452	2029-30
CWW3.15	SOUTH MOLTON STW_SO_SOUTH MOLTON	0.480	0.841	1.356	1.982	3.759	8.417	2029-30
CWW3.15	SOUTH MOLTON STW_SSO_SOUTH MOLTON	0.141	0.246	0.397	0.581	1.101	2.466	2029-30
CWW3.15	ST LEONARDS STW_SSO_LAUNCESTON	0.928	0.838	0.874			2.640	2027-28
CWW3.15	TIVERTON STW_SSO_TIVERTON	0.857	1.500	2.420	3.537	6.709	15.023	2029-30
CWW3.15	Shellfish: Sandy Bay - Maer Lane STW	6.281	5.006	5.019	3.956	4.651	24.912	2029-30

CWW3.15	5 Bathing: Plymouth Hoe -								
	Central Shaft 16	7.922	7.331	7.304	5.756	6.768	35.081 2029-30		

PCD calculation

The PCD calculation for each output is shown below

PCD_18 SWB FFT	Totex £m	60% of Totex, £m	Outcomes value	Net PCD value / rate £m	Delivery date	Time incentive rate £m
CROYDE STW_SO_CROYDE	5.091	3.055	-	3.055	2029-30	0.178
FALMOUTH STW_SO_FALMOUTH	24.681	14.809	-	14.809	2027-28	0.864
FOWEY STW_SSO_FOWEY	9.009	5.405	-	5.405	2027-28	0.315
LADOCK VALLEY STW_SSO_TRESILLIAN	13.452	8.071	-	8.071	2029-30	0.471
SOUTH MOLTON STW_SO_SOUTH MOLTON	8.417	5.050	-	5.050	2029-30	0.295
SOUTH MOLTON STW_SSO_SOUTH MOLTON	2.466	1.480	-	1.480	2029-30	0.086
ST LEONARDS STW_SSO_LAUNCESTON	2.640	1.584	-	1.584	2027-28	0.092
TIVERTON STW_SSO_TIVERTON	15.023	9.014	-	9.014	2029-30	0.526
Shellfish: Sandy Bay - Maer Lane STW	24.912	14.947	-	14.947	2029-30	0.872
Bathing: Plymouth Hoe - Central Shaft 16	35.081	21.049	-	21.049	2029-30	1.228

PCD_18 SWB FFT

Description of price control deliverable	We have 10 WINEP Full to Flow Treatment Schemes with a variety of delivery dates.
Measurement and reporting	Delivery of schemes against the delivery date will be set out in our APR submission / annual WINEP reporting to the EA.
Conditions on allowance	The activity is straightforward in terms of the description of the PCD
Assurances	Independent third-party assurance of the annual amount of activity will be reported on as part of each APR submission, together with the calculation of the PCD at PR29.

Price control deliverable payment rate	The individual project rate and time value for money is set out in the separate table above.
Impact on performance in relation not performance commitments	Not applicable