

Price Review 2024: Anglian Water's Business Plan for AMP8 (2025-2030) **Draft Determination Representations**



PR24 Draft Determination Representations

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Foreword from Mark Thurston, CEO, Anglian Water



I've been at Anglian Water for just over eight weeks now, and in this short amount of time, I have immersed myself in getting to grips with the sheer scale of this incredible and complex business.

We're the biggest water company by geographic area, serving seven million customers and covering nearly a quarter of the UK. Our region stretches from the Humber Bank in the north to the Thames Estuary in the south and is home to major energy infrastructure projects such as Sizewell C, and a growing hydrogen production sector. Importantly, 75% of the land in our area is used for agriculture, with our region often referred to as the breadbasket of the UK.

Home to four of the UK's fastest-growing cities, over 700,000 more people are expected to live in this region in 20 years' time. Couple that with being on the forefront of climate change – experiencing contrasting extremes of heat and rainfall in recent years – we have our challenges.

This is a pivotal time for our business as we gear up for the next five-year delivery period (2025-2030) and beyond. Coming from an engineering background, it's clear to me there is so much to deliver, in line with our long-term ambitions and our Purpose. But long-term delivery plans need secure investment and committed shareholders – something which needs much more consideration from Ofwat if our sector is to be seen as a serious and viable investment proposition.

My focus right now, is to make sure Anglian Water is well set up to deliver AMP8. Transformation plans are already in place and delivery of those plans will be swift and ongoing. But as well as making transformational change, we need to focus on getting the basics right, if we are to start AMP8 on a firm footing. This is especially important when it comes to pollution performance. We know our 2-star EPA rating is not good enough and we are marshalling resource and mindset to turnaround our performance, supported by our shareholders, who have agreed an extra £100 million to accelerate progress. All of the decisions we are making today – against a backdrop of climate change, customer expectations, new requirements and the Government's economic growth mission – will impact future customers. Planning for the long-term is key.

Our AMP8 plan is affordable and deliverable, and it represents the next stage of our long-term strategy. Worth around £10 billion, it will see us double our capital programme from the previous AMP. It reflects what we've learned from our [Thriving East research](#), which clearly demonstrates the need for a reliable, safe and secure supply of water to underpin economic, environmental and social prosperity. It's a plan built to meet the needs of our region: it accommodates a growing population, doubles investment in the environment and will create vital infrastructure to secure resilience and enable growth. This is particularly important given the level of water-intensive businesses in our region.

We have much to do over the next five years, but we are confident in the deliverability of our plan. We already have 86% of the required work agreed with our Alliance partners, who are critical to the delivery of major infrastructure projects, like our strategic interconnecting pipeline and two new reservoirs.

But to achieve the scale of work needed, our Final Determination, and indeed the sector as a whole, needs to be investable. As an incoming CEO, looking at this through a non-water sector lens, it's clear that in addressing the ongoing issue of appropriate returns the Draft Determination doesn't go far enough. We strongly urge Ofwat to re-think this point, and support the industry in attracting long term, quality investment to drive economic growth.

Also, while we welcome Ofwat's delivery focus and recognition of the quality and efficiency built into our AMP8 proposal, other key areas need to be reconsidered. These include a miscalibrated performance framework, a limiting approach

to delivering major infrastructure, and the overall balance of risk and return. To ensure the necessary funds, it's vital we secure a balance of investment, service improvement and a fair return across the industry.

We also urge Ofwat to look at areas where the Draft Determination focuses only on the short term. Without long-term thinking, there will be unintended consequences on customer bills, increased risk of service failures and we will inevitably have to play catch-up on climate-related impacts.

In this summary, we set out the targeted updates to our plan, including further investment linked to new environmental obligations, to ensure it is still deliverable and represents great value. By 2030, a household can expect to pay just £1.68 for their daily water and waste water needs (£1.35 in 2024), as we maintain our focus on affordability.

The country's last great sector infrastructure programme was Sir Joseph William Bazalgette's creation of the London sewer system, which is still in use today. It effectively wiped out cholera from the capital. As we prepare for the next AMP, our industry has a similar opportunity to drive social and economic growth and create a legacy for the future. In working together to address challenges, we must be careful not to unwittingly stymie our ability to create a future-focused, efficient and environmentally sound industry; one which attracts the right kind of shareholder, inspires confidence for customers, stays ahead of climate change and population growth, and ensures flowing taps and flourishing environments for generations to come.

View from the Board

As a Board, we have shaped the development of our ambitious AMP8 plan and our Long Term Delivery Strategy (LTDS) to ensure that we, Anglian Water, deliver across all statutory requirements. Our plans were created in line with our Purpose – to bring environmental and social prosperity to the region we serve through our commitment to Love Every Drop.

During the AMP8 business planning process, we rigorously challenged both the scope and cost of investment, to ensure our plan is efficient and delivers a service improvement. In preparing our Representations, we have applied the same level of scrutiny, as elements have changed in light of emerging regulatory requirements and Ofwat's views. Customers remain at the heart of our plan, as we will do this alongside keeping bill increases to a minimum. Our AMP8 plans include an unprecedented level of help to make bills affordable for those struggling to pay. We will support all customers at risk of water poverty and are introducing an industry-first, new Medical Needs Discount. This will not be funded by any proposed increase in other tariffs, instead the costs will be met by investment from our long-term shareholders.

The Board collectively agrees that there are limitations to the current Draft Determination, which will not only impact Anglian Water, but wider economic growth in Eastern England. Positively, Ofwat has recognised the quality and cost efficiency of our Plan. Our cost challenge of 4% is materially lower than the industry average (16%). However, overall, the cumulative risk presented by the Determinations will impact the sector's ability to attract long-term and secure investment, and to deliver now and in the future.

We have reviewed Anglian Water's Draft Determination Representation proposals and believe that, with support from Ofwat and other key stakeholders, we can secure a Final Determination which is fit for purpose, enables us to continue delivering our ambitious AMP8 plan and creates an essential platform to meet the needs set out in our LTDS.

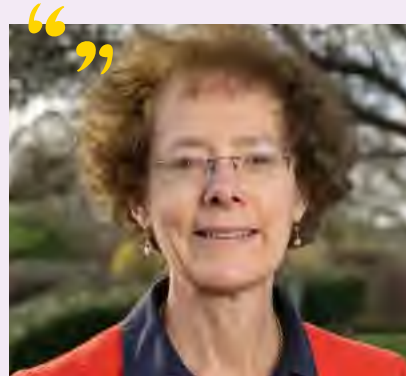
Board assurance

The Anglian Water Board has owned and is accountable for the Draft Determination Representations. Board members have met on four occasions, to assess the implications of Ofwat's Draft Determinations and discuss our proposed Representations. Although the Board Assurance requirements for the Draft Determination Representations are narrow, compared to those required for the business plan, the Board has gone beyond and focused considerations on deliverability, Ofwat-related Performance Commitment Levels (PCL) and risk and return.

We remain committed to the highest standards of corporate governance. The Board has a well-established and effective set of policies and procedures covering corporate governance, internal control and risk management.

This has supported the assessment and response to the Draft Determination. As a result, we are confident in providing a Board Assurance Statement, in line with Ofwat requirements, which can be found here.

We recognise the importance of ensuring that our Representations, and the decisions taken by our Board, are based on robust and reliable data and information. PwC and Jacobs have undertaken targeted assurance of our representations, supported by robust internal assurance. Where we have engaged with third parties to inform our Representations, we have reviewed the analysis and ensured we are comfortable with the balance of customer and company interests.



The Anglian Water Board takes its accountability for the Draft Determination Representations to Ofwat extremely seriously and recognises the importance of getting the right outcomes for our customers, communities and the environment. Our submitted plan is built to deliver what our region needs now and in the longer term. Importantly too, it is a driver of social and economic growth in our region – directly in line with the Government's agenda. As one of the fastest growing regions, it's vital we are able to invest in building new assets and maintaining existing ones. We have robustly considered the implications of the Draft Determination and comprehensively reviewed insight, data and analysis by internal and third-party experts. As a result, we are confident in our assurance statement and look forward to working with our new CEO, Mark Thurston, as we prepare to deliver the next stage of our long-term plan.

Dr. Ros Rivaz
Chair



As a Board we have scrutinised the assurance process for our Draft Determination Representation. We have held sessions on the Representations with management and external advisors. This has enabled us to really challenge and understand the choices and assumptions that have been made. The positive feedback from our independent assurance providers gives our Board confidence that the PR24 governance and programme management framework has been effective in developing high-quality Representations that take into consideration new obligations, will enable us to deliver social and environmental value and reflect our customers' priorities.

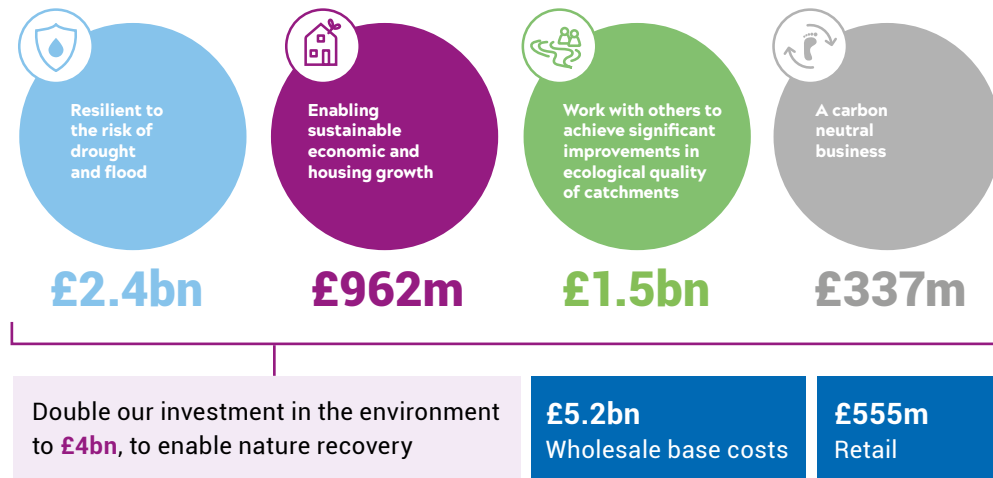
Zarin Patel
Chair of Audit and Risk Committee

Our asks of Ofwat

Anglian Water's customers, regulators and the Government are looking to us to deliver high-quality infrastructure and services that are resilient to a changing climate and capable of supporting housing and economic growth, without compromising the health of our natural environment.

With the new government agenda placing a greater emphasis on structured investment and water being at the centre of growth, we need to foster an environment that encourages long-term investment in a robust and resilient water sector. Reflecting the scale of this challenge, our AMP8 investment plan is double anything we have previously delivered.

What our AMP8 plan will deliver for Eastern England



We are pleased that Ofwat's Draft Determination has recognised the quality of our plan and the efficiency of our costs, resulting in one of the smallest Totex reductions in the sector and supporting our ambitions in crucial areas, such as storm overflows and growth. This reflects the strength of customer support for our proposals. Over two years, we carried out almost 35,000 in-depth engagements with our household customers and over 2,500 engagements with our non-household customers, specifically on our AMP8 plans.

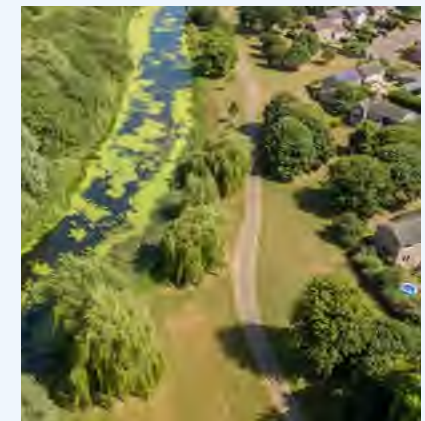
However, the Draft Determination falls short in a range of areas. A number of material changes are needed to deliver a viable Final Determination that enables us to deliver for our customers, wider stakeholders and our investors. We are particularly concerned that the Draft Determination does not represent a fair balance of risk in the short term and puts greater risk on future generations, with vital resilience investments being rejected or assumed to be delivered from the base expenditure of running the business. This is exacerbated by stretching assumptions of performance improvements that can be achieved without impact on customers' bills and material penalties for failure. This approach does not reflect previous improvements or the realities of the more extreme environmental challenges facing companies.

The next few months provide us an opportunity to finalise investment plans that put the water sector on a new trajectory. This is an opportunity we cannot afford to miss. Dialogue and collaboration will be critical if we are to work at the necessary pace and agree a Final Determination that meets the needs of all parties.

Challenges to address

Evolving our Draft Determination into an investable Final Determination will require the following issues to be addressed:

- Recalibrating what can and should be delivered by base expenditure and ensuring sufficient money to deliver.
- Setting a cost of capital that fully reflects real-world market data and the risks companies face.
- AMP8 performance targets should appropriately reflect AMP7 progress, alongside reconsidering the scale of penalty exposure.
- Development of a regulatory model for reservoir development that better aligns with precedents set by other major infrastructure.
- Redress the overall balance of risk and return.



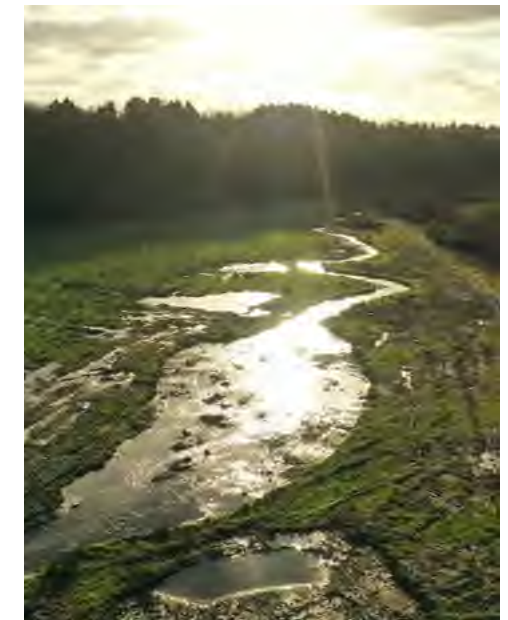
To address these challenges and ensure that PR24 works for customers, the environment, companies and investors, we ask that Ofwat:

- 1 Improves the focus on the longer term.** £250 million of our proposed resilience and climate change adaptation enhancement projects have been rejected or moved to base, replaced by an insufficient one-off £30 million allowance to tackle climate change impacts. Alongside this, hundreds of millions of pounds of unfunded investments have been loaded into already over-stretched base costs. The inevitable result is that essential work will be pushed into future AMPs, resulting in short term performance risks and requiring future customers to foot the bill for the consequences of work not being done now. Ofwat has recognised the need to intensify capital maintenance of water mains, but has not approved sufficient funding, while this narrow focus on one asset class creates risks across the wider asset base. Overall, the Draft Determination restricts our flexibility to respond appropriately to changing maintenance requirements during the course of the AMP.
- 2 Utilises the full evidence base available in setting the cost of capital.** It is crucial for the ongoing investability of the sector that Ofwat takes the opportunity to fully assess the level of return required to attract the scale of investment needed to deliver plans for PR24 and beyond. We encourage Ofwat to review the cross-regulatory evidence, use the sectors' cost of embedded debt analysis and wider CAPM cross checks as part of setting the WaCC for the Final Determination.
- 3 Reassesses the proposed AMP8 performance targets and incentive rates.** The asymmetry of the Draft Determination proposal shifts the outcomes regime away from its intended balance to incentivise and reward companies for delivering improvements for customers, whilst disincentivising poor performance. The imbalance of the proposed Draft Determination is exacerbated by not reflecting recently published 2023-2024 performance data which indicates companies will be some way off the 2024-2025 targets set by Ofwat during PR19. This assumption forms the starting point for AMP8 performance targets. This evidence, coupled with Ofwat's approach to setting incentive rates, has a material impact on the overall balance of risk, and companies are projecting to incur substantial penalties from the start of AMP8.
- 4 Collaborates to develop the approach to delivering major infrastructure projects.** Recognising this is a nascent area for water, we welcome Ofwat's willingness to work collaboratively, to continue to develop the overall approach to managing cost and risk that reflects the precedents from delivering major infrastructure such as the Thames Tideway Tunnel.
- 5 Redresses the overall balance of risk and return.** The median company is clearly exposed to significant downside risk which could largely eliminate the allowed equity returns. When setting the Final Determinations, Ofwat needs to review the collective impact of its decisions to fully balance the level of stretch and risk presented to companies. Enhanced risk analysis needs to be undertaken reflecting actual performance experienced over AMP7, ensuring the end result is a reasonable prospect of an appropriate return on investment. Timely recovery of costs during the AMP is essential to ensure effective investment, mitigate excessive demand on equity and support companies' financial resilience. A series of expenditure true-ups result in delayed cost recovery into AMP9, creating excessive risk exposure. Most significantly, we need the ability to recover appropriate costs from the substantial investment necessary to deliver the reprofiled strategic interconnecting pipeline. Further work is needed on the bioresources uncertainty mechanism, to reflect the varied risks that could trigger loss of access to the landbank. Ofwat has also applied the energy adjustment incorrectly, resulting in a shortfall of £175 million compared to our forecast energy bill for AMP8.

Our commitment to working with others to secure a fit-for-purpose Final Determination.

During the PR24 process, we made clear that success across the industry depends on a collaborative and long-term approach between companies, regulators and shareholders. The shape of companies' plans has continued to change, driven by a range of factors, including new obligations and changing guidance. The scale of our investment programme, the complexity of some of the major infrastructure we will be developing and the ongoing challenging sentiment around the sector mean that Final Determinations will need to be carefully calibrated to meet the needs of all parties.

Below we set out more detail about the constraints we see in our Draft Determination and changes we believe will be necessary, to ensure a workable Final Determination.



1 Improves the focus on the longer term

The expectation that base expenditure can fund significant elements of our proposed investment, in both maintaining the asset base and ensuring long-term resilience, is unrealistic.

Even though our Botex allowance was largely consistent with our Business Plan (excluding energy and business rates), the impact of Ofwat's Draft Determination expects c.£650 million of additional activity to be completed from this allowance, including £323 million of enhancement funding that has been disallowed and is expected to be funded from base. In addition to this c.£650 million of base pressure, £260 million will be spent in AMP8 but will not be recovered until after 2030. We built our AMP8 plan to be as efficient on costs as possible, which we are pleased Ofwat has recognised – reducing our proposed base costs by only 4% – but this means there is no headroom in our plan to absorb additional costs imposed through the Draft Determination.

Ofwat has rightly focused on the need to increase resilience but has not gone far enough on asset health. £250 million of key resilience and climate change adaptation enhancement projects have been rejected or moved to base, replaced by one-off £30 million funding to tackle climate change impacts. Alongside this, hundreds of millions of pounds of unfunded investments have been loaded into already over-stretched base costs. The inevitable result is that essential work will be pushed into future AMPs, resulting in short term risks and requiring future billpayers to foot the bill for consequences of work not being done now. As part of our Representations, we have voluntarily included an independently reviewed update to our [Asset Management Maturity Assessment](#), highlighting progress in a number of areas and planned improvements.

The majority of our assets are over 30 years old. The Price Review process invariably focuses on the new activities and assets required to meet new regulatory and legal obligations. Insufficient funding has been made available over multiple AMPs to manage maintenance pressures on existing assets. Loading all maintenance and service improvement into base is unreasonable and needs redressing as we face into the future.

To put this into context, the National Infrastructure Commission (NIC) calculates £12 billion of investment will be needed in water every year between 2025-2030, followed by maintenance at around £8 billion per year from 2030-2055.

The one-off resilience uplift is welcome; however, it will not enable us to meaningfully address pressing risks to our network.

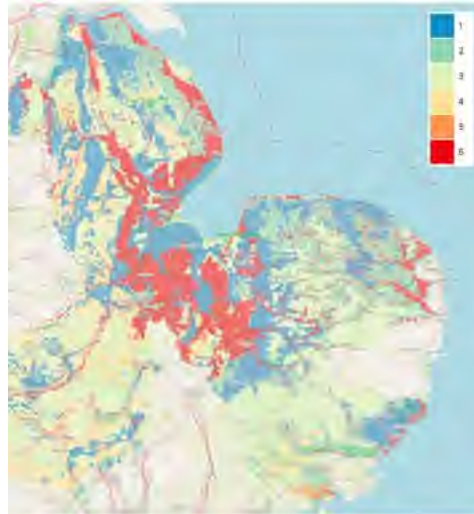
Anglian Water and three other water companies have commissioned new independent analysis, developing options for asset health metrics and funding approaches. This work is focused on PR29 but has identified a number of relevant insights that could be reflected in the current Price Review. This project has stimulated effective collaboration between Ofwat and industry (as well as NIC, Defra and DBT) that should be continued, to ensure more equitable treatment of capital maintenance in Final Determinations. This also overlooks the need for escalating capital maintenance investments in AMP9 and beyond. Locking asset health onto a single asset class (water mains) tied to a Price Control Deliverable (PCD) also risks building up problems in other parts of our network, such as storage points and pumps, which have not been similarly funded.

The Draft Determination overstates the level of mains renewal implied by Ofwat's historic cost allowances. Once corrected, this level is less than both our Business Plan proposal and significantly less than the long-term sustainable level, which for our region we calculate at 0.9% per annum. Our Representations address these issues, by committing to a reasonable increase in mains renewal from base and then seeking funding to take the first step in closing the gap on mains renewal, towards a long-term, sustainable level.



The risk of asset failure in the long-term

We have established the necessary scale of AMP8 asset maintenance and renewal investment, based on independent research, highlighting the risks and impacts of ageing water mains. Much of the land in our region is drained and rich in soils that are highly shrinkable, often chemically aggressive and structurally unstable. Extreme temperatures and heavy rain lead to shrinking and expanding of these soils, exacerbating ground movements that increase failures of ageing water distribution mains. Since 2014, we have partnered with Dr Timothy Farewell and Cranfield University, with research highlighting 8,241km of climate-vulnerable mains in the East of England. We intend to remove 75% of these mains by 2060, requiring investment of up to £1.64 billion. Our AMP8 programme proposed renewing 668km of these climate vulnerable mains – c.8% of the total. Pushing back concerted action beyond 2030 increases the risk of asset failure in the short term and builds-in delivery risk to future years.



Shrink-swell classification over the Anglian Water (water supply) area. Sources: Infrastructure data © Anglian Water. Soils data © Cranfield University and for the Controller of HMSO, 2019.

Decades of investment have helped us achieve our long-standing track record on leakage from our own pipework – we are a frontier performer across the industry.

In 2023/24, we achieved our lowest three-year rolling average, marking a 6.2% reduction from the 2017-2020 three-year baseline period. Going beyond our current position will require enhancement expenditure, a point explicitly acknowledged by the Competition and Markets Authority (CMA) in our PR19 redetermination. The CMA argued that “even if the spend may appear to relate to ‘business as usual’ activities, the sophistication of these is likely to be greater given the change to a significant leakage reduction now needed” and that this merited enhancement funding.

In addition, Ofwat’s energy adjustment has an error that must be corrected – which results in a £175 million shortfall in energy costs.

Summary of proposed changes to our Draft Determination

- Reinstate the investment targeting asset health including the replacement of climate vulnerable mains.
- Update base costs to reflect the level of energy costs anticipated in AMP8.
- Consistent with recent CMA decisions, allow leakage enhancement funding and also a Cost Adjustment Claim, to recognise the higher costs of maintaining leakage as a frontier performer.
- Reflect the forecast expenditure associated with boundary box failures linked to our legacy metering programme, which is distinct from Ofwat’s meter replacement adjustment.
- Allow recovery of costs, such as the increased level of AMP8 Environment Agency permit charges that are outside of management control.
- Adopt a more realistic expectation of productivity improvement that can be achieved in AMP8.



2 Utilises the full evidence base available in setting the cost of capital

The Weighted Average Cost of Capital (WACC) doesn't fully reflect market developments and excludes certain data points. It does not go far enough in setting an allowed return that reflects the overall risk-reward package and the need to encourage material equity investment in both the short and long term.

At the proposed allowed WACC, we firmly believe that neither Anglian Water, nor our sector as a whole, will be able to attract the necessary equity to fund our business plan. The spread between the Cost of New Debt and the Return on Equity continues to be a material concern, with some companies currently seeing their actual cost of debt higher than the allowed equity return.

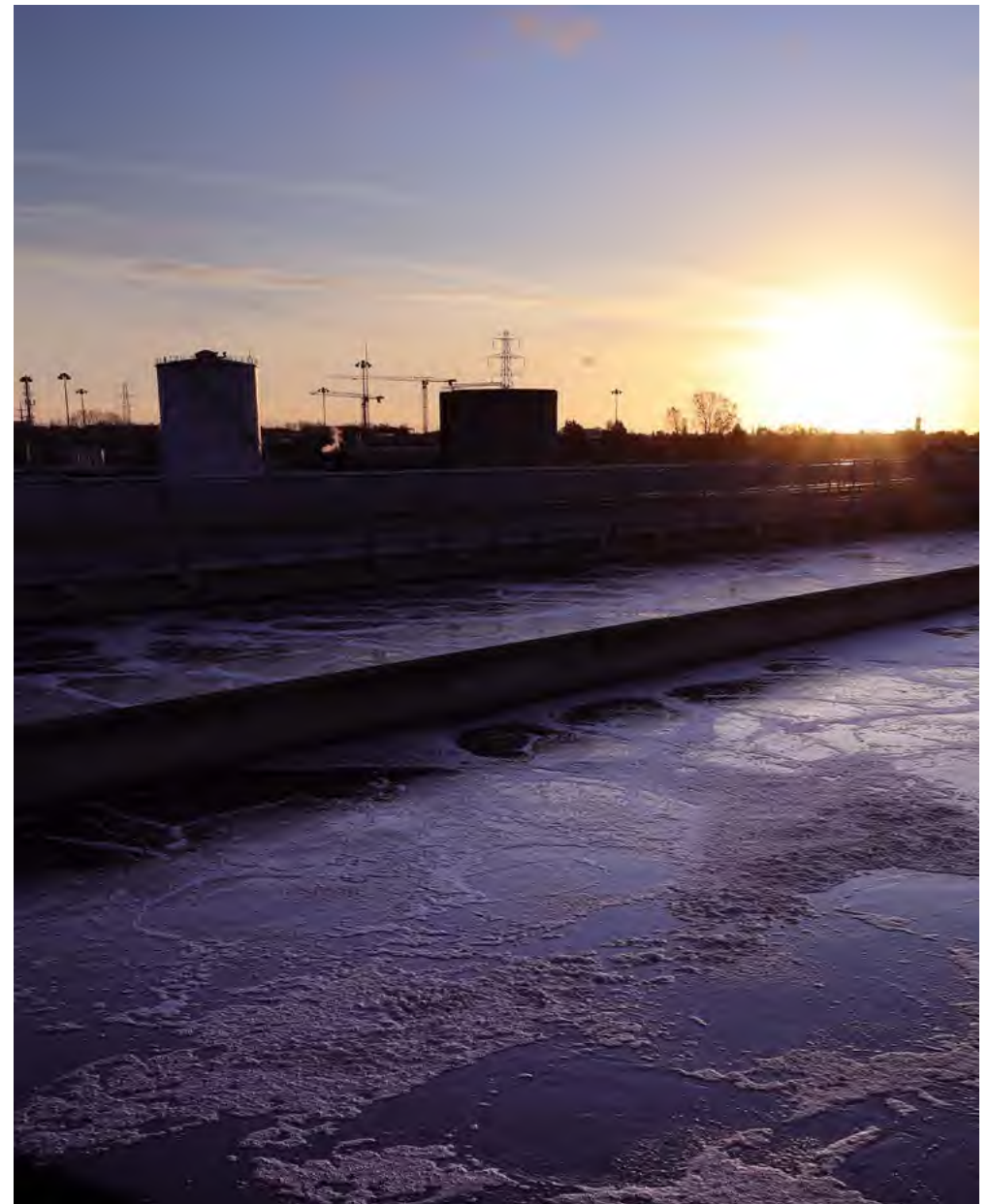
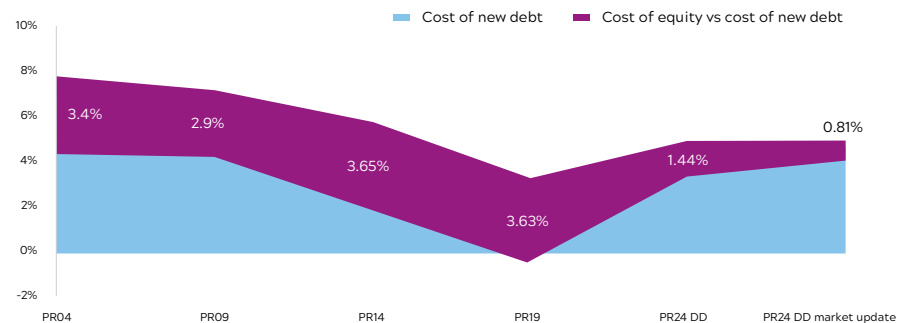
Our AMP8 plan proposed a risk-reward package under the return set out in the PR24 Final Methodology. At the time, we highlighted and evidenced concerns that the allowed return was too low. We also highlighted concerns on the asymmetry of upside and downside returns, concluding that an additional equity premium, or alternatively, removal of the skew in the underlying risk profile, would be necessary to ensure PR24 is a fair investment proposition.

While the Draft Determination has proposed an increase compared to Ofwat's early view, which we welcome, this is combined with Ofwat's view that there is no material downside risk for even the notional efficient company. This is based on the assumption that companies will achieve their AMP7 cost and output targets, which would subsequently translate into AMP8 performance – with little or no downside skew from Outcome Delivery Incentives (ODI) or Price Control Deliverables (PCD) penalties factored in. When risks are appropriately modelled, based on the latest market data, the substantial downside risk is clear.

Summary of proposed changes to our Draft Determination

- Update and incorporate the full suite of cross-regulatory evidence, use the sectors' cost of embedded debt analysis and wider Capital Asset Pricing Model (CAPM) cross checks as part of setting the WACC for the Final Determination.
- Reflect the diminished spread between the cost of equity and cost of debt in setting the WACC for the Final Determination.

The spread between cost of equity and cost of new debt allowances in Ofwat price determinations



3 Reassesses the proposed AMP8 performance improvements and proportionate incentives

Ofwat's AMP8 Draft Determination assumes that the sector will meet the Performance Commitment Levels set at PR19. However, the most recent performance data (2023/24) and future forecasts (2024/25) demonstrate that AMP7 performance targets are beyond what many companies expect to achieve.

What's more, the approach to reward and penalties materially increases companies' penalty exposure, relative to AMP7. This is backed up by a recent Moody's report, highlighting the Performance Commitment position as a key area of concern for investors, as it creates a financeability disconnect, read more [here](#).

This asymmetry will ultimately not deliver improved outcomes for customers. This will inevitably impact the investability and financeability of our AMP8 plans. While we realise the latest performance data was not available to Ofwat while drafting Draft Determinations, some incentive rates have changed materially since the Final Methodology. When risks are appropriately modelled, based on the latest data, expected performance is often below Ofwat's assumptions, with the risk and costs of underperformance exceeding the likelihood of outperformance. The consequence

is that investors cannot reasonably be expected to earn their allowed return. Moody's has assessed the impact of these changes as making most companies likely to be in net penalty over AMP8, amounting to c.£2bn across the sector.

It is essential that AMP8 learns the lessons of AMP7, where performance targets based on incomplete AMP6 performance data resulted in companies facing a "performance deficit" from the start of AMP7. Resetting AMP8 performance targets, using the latest AMP7 data, is essential to avoid baking-in this deficit over a second successive AMP and creating excessive financial risks.

We recognise our responsibility to improve performance in some areas.

Our shareholders have agreed £100 million of additional support to accelerate performance improvements on spills and pollutions during 2024.

But even with additional investment, we require a more balanced starting position to stand a chance. We propose an industry reset of targets and challenge ourselves to catch-up with the wider industry. Our key areas of risk are pollutions, serious pollutions, internal and external flooding and leakage.

Summary of proposed changes to our Draft Determination

- Use the emerging data on AMP7 performance to recalibrate AMP8 performance commitments and incentives.
- Our Representations propose a balanced package of service performance improvement and hold us to account if we fail to deliver.
- In our original Business Plan, we proposed targets for flooding and pollutions that are unattainable in light of recent data. For these areas, we maintain our ambition but, in recognition of the difficult starting point, we propose a glidepath to catch up to the industry over AMP8.
- For leakage, we also propose a new glidepath, aligned with our Water Resources Management Plan (WRMP). This is dependent on Ofwat accepting our cost adjustment and enhancement claims for leakage.



4 Collaborates to develop the approach to delivering major infrastructure projects

We've always taken a long-term view to water resilience and have plans to build two new reservoirs – one in Cambridgeshire and another in Lincolnshire.

The Water Resources East regional plan identifies the new reservoirs as key to ensuring the region we serve has enough water in the future. Delivering the Fens Reservoir on schedule is critical for Cambridge and its growth agenda and is prioritised in our Water Resources Management Plan and revised submission. It is being delivered in partnership with Cambridge Water.

We are also working with over 70 stakeholders through our Future Fens: Integrated Adaptation (FFIA) strategic partnership programme, including Cambridgeshire and Peterborough Combined Authority, Environment Agency, Water Resources East, Lincolnshire County Council and other local and regional partners. This includes the development of locally owned investment plans, that will seek to deliver landscape-scale benefits (such as integrated water management, health equality, transport improvement), by securing private investment from financial institutions. The reservoirs will be key to this enhancement, by allowing an opportunity to further leverage investment being sought for their delivery and operation.

We recognise the good intent behind Ofwat's approach to funding and risk management for the Strategic Resource Options (SROs). Nevertheless, the Draft Determination creates unacceptable regulatory risk, given the uncertainty associated with the development of major infrastructure. This needs to be resolved in order to unlock investment for these major projects, which are critical for economic and

housing growth and to protect the long-term interests of the environment and customers.

When we submitted our PR24 business plan, our reservoir projects and cost estimates were at a relatively early stage of maturity. Development costs for infrastructure projects are inherently uncertain, with elements often outside of our control. Our experience with similar large Development Consent Order projects has shown how costs can change over time. Our Draft Determination reflects the £330 million proposed in our business plan. Since submission, we have continued to develop these forecasts. Our latest estimate, which has been independently assured, indicates that total costs are in fact likely to be in the region of c.£653 million in AMP8 (Fens: £460 million, Lincolnshire: £193 million). There remain major strategic decisions that still need to be discussed and agreed – e.g., land strategy and enabling works – and the estimate does not include risk allowance for events outside of Anglian Water's control. We look forward to collaborating with Ofwat to appropriately reflect this in the Final Determination.

We believe the Thames Tideway Tunnel (TTT) model provides a better dynamic approach for infrastructure than five year price reviews. Ofwat's current approach exposes us to uncontrollable risks, via proposed Totex sharing rates and the rejection of our proposed cost re-opener. Neither decision is consistent with key precedents such as TTT. Furthermore, a more flexible approach would deliver better value for money for customers, something Anglian Water and Ofwat are keen to ensure.

The overall concept of a fixed (e.g. % of capex) monetary allowance for Development Costs sits uncomfortably with the reality of project implementation, where situations can arise in which "spend in development" to "save multiples

in construction" can arise. The proposed incentive approach means that failure to achieve a gated milestone could potentially result in a) scheduled delay and associated cost overruns, b) remediation costs to fix the issue and c) Direct Procurement for Customers (DPC) penalties that weren't calibrated for Specified Infrastructure Projects (SIPR) schemes. We will continue to work closely with Ofwat to resolve these issues and ensure the Final Determination supports these investments and the economic growth dependent on this critical infrastructure.



The proposed new reservoir in Lincolnshire



The proposed new reservoir in the Fens

Summary of proposed changes to our Draft Determination

- Changes are needed to Ofwat's overall approach to major infrastructure delivery, such as utilising a separate price control process for Specified Infrastructure Projects and revisions to cost recovery and risk management, that are more appropriate for the investment scale and risk profiles of large scale infrastructure.
- Explore a more dynamic approach to setting cost allowances mid-AMP, to reflect major strategic decisions that are still to be made (e.g. phasing, land and enabling works) and adjust for factors outside of Anglian Water reasonable management control.
- Increased Ofwat involvement in strategic decisions on issues that arise during the ordinary course of the project to ensure that Ofwat and Anglian Water are aligned and progressive sign-off of costs.
- Incentivisation only where Anglian Water has control, no double jeopardy, and outcomes are demonstrably in customer interests – must be aligned with risk and reward.

5 Redresses the overall balance of risk and return

Many overlapping factors including base, WaCC, PCDs, uncertainty mechanisms, the performance framework and approach to SROs determine the overall balance of risk and return in the Draft Determination.

If the balance skews too much to the downside, it calls into question the investability and financeability of the entire plan. Draft Determinations also introduce a number of proposals with the potential to increase risk, including:

- Reducing Regulatory Capital Value (RCV) run-off rates, which reduces short term customer bills but takes longer to pay off the investment;
- A Delayed Delivery Cashflow Mechanism (DDCM) that would claw back a proportion of the revenue provided to date, and to remove any associated revenue within the allowed return and RCV run-off from future years, where there is material underspend of enhancement expenditure;
- Consulting on an additional mechanism that restricts dividend payments where companies' gearing exceeds 70%.

The risk profile of the water sector is changing as its underlying economics fundamentally shift. Water companies could previously be characterised as value stocks: they paid regular dividends, had RCVs that grew relatively modestly and required little or nothing by way of new equity. This played out as low, steady bills for customers, which in spite of industry challenges, have risen by little more than 10% excluding inflation in the 35 years since privatisation.

In the foreseeable future, water companies will be more like growth stocks: undertaking large investment programmes that result in a rapidly growing RCV, paying limited or no dividends and in most cases requiring injections of equity. These changes have important implications for how the sector should be regulated. In particular, this highlights the importance of a credible framework for attracting equity finance – this extends beyond PR24, with our LTDS setting out the need for substantial investment over multiple price control periods. The Draft Determinations contain a number of provisions that will disincentivise new equity investment at the necessary scale. The consequence is that future bills will need to increase by more than they otherwise would, in order to ensure long-term needs can be met.

5.1 Enabling effective delivery and risk management

The Draft Determinations also provides insufficient flexibility to enable companies to effectively manage the volatility that we face across a range of frontiers including weather, regulation and input costs.

Timely recovery of costs during the AMP is essential to ensure effective investment and mitigate excessive demand on equity and support companies' financial resilience. Expenditure true-ups (the process of reconciling estimated amounts with actual up-to-date figures) have been pushed back to AMP9, creating too much risk around the timing of recovering expenditure. Most material for Anglian Water, is the impact of the investment to deliver the reprofiled Strategic Interconnector programme. Our Draft Determination requires this remaining investment to be funded upfront by our investors, with partial recovery of these costs beyond 2030. The scale of investment required means this will need to change to

enable us to recover appropriate costs during AMP8. Ofwat has also applied the energy adjustment incorrectly, as outlined in the "Improves focus on the longer term" section.

We have also included uncertainty mechanisms in our plan to help mitigate the impacts of events outside our control. Ofwat's proposed bioresources Notified Item is welcome, but too narrowly framed, failing to provide adequate protection against loss of access to the landbank, for which there are many possible triggers beyond legislative change. We are also proposing a new uncertainty mechanism focused on PFAS and extension of the 25:75 cost sharing rate to a small number of additional programmes that meet the criteria.

Our business plan proposed 14 Price Control Deliverables (PCDs) that, if designed and applied appropriately, can support the delivery of positive outcomes for customers and the environment. PCDs return allowances to customers for both non-delivery and untimely delivery.

We largely accept Ofwat's PCD proposal but will propose targeted interventions to address specific constraints that undermine both our ability to deliver and a key deliverability risk mitigation, that of continual optimisation of plan. Delivery of our long-term environmental commitments is constrained by the construction of the performance framework. We developed our Water Industry National Environment Programme (WINEP) through extensive multi-phase consultation and engagement with our environmental regulator, partner organisations and other stakeholders. This produced defined outputs for AMP8 delivery based on environmental priorities, without introducing restrictive limitations on selected delivery solution. In contrast, the mechanism for measuring year-on-year company performance against traditional methods of delivery,

rather than environmental benefits, restricts opportunities for nature-based solutions and hybrid solutions, and reduces the overall long-term environmental improvement possibilities.

Despite improvements to Ofwat's approach in the Draft Determination, we have some concerns with the proposed framework. For example, we would like to see more provision dealing with uncertainty for areas outside of control, such as new quality obligations in AMP8 and greater flexibility, so we can react to changing circumstances. Areas of high risk include Farming Rules for Water and the implications for bioresources, and the evolving regulatory and legal climate around PFAS.



Summary of proposed changes to our Draft Determination

- Redress the most material concerns with base costs, including the correction of energy costs, the appropriate level of capital maintenance costs and the allowances for leakage improvement.
- Rebalance the overall reward and penalty package reflecting the latest information.
- The allowed return proposed in the Draft Determination is insufficient to enable us to attract the necessary debt and equity capital to fund our investment programme over AMP8.
- We welcome the treatment of the AMP7 Strategic Interconnector Outcome Delivery Incentive penalty. We ask Ofwat to go further and revise the timing of the cost recovery for completing the scheme during AMP8.
- We will propose an uncertainty mechanism, should further PFAS be identified.
- Bioresources uncertainty mechanism must change, so it comes into force upon loss of access to the landbank, rather than simply when legislation changes.
- We largely accept Ofwat's PCD proposals, but provide targeted representations focused on: greater flexibility, alternate approaches to front-loaded delivery profiles, a reprofiling for more realistic delivery and delay profiles, and where there is a material overlap, the separation of underperformance payments related to PCLs. Without change, Ofwat's DDCM and PCD non-delivery could overlap, resulting in double-counting of funding to return to customers.
- The rationale for the proposed 70% gearing mechanism is not based on sound economic principles and should be appropriately consulted on outside of the PR24 process.

In conclusion

Our commitment to working with others to secure a fit-for-purpose Final Determination

During the PR24 process, we made clear that success across the industry depends on a collaborative and long-term approach between companies, regulators and shareholders.

We welcome Ofwat's proposal to work collaboratively with us over the autumn on development of the Fens and Lincolnshire Reservoirs. However, we are still waiting for Environment Agency guidance to be finalised in a number of areas, such as ultra-violet disinfection, which will have a material impact on bills, alongside the Environmental Performance Assessment and a changing definition of pollutions categories. Our experience from submission to Draft Determination shows that regulatory change does not fit neatly within the price review window, so we need a sufficiently adaptable approach to new requirements.

There also remain areas where alignment is needed between different regulators, such as the bioresources uncertainty mechanism, where clarity is urgently needed over the scope of the bioresources driver in the Water Industry

National Environment Programme. This also includes guidance on PFAS, which we expect to continue to evolve as understanding of the challenges improves.

The scale of our investment programme, the complexity of some of the major infrastructure we will develop and the ongoing challenging sentiment around the sector, mean that Final Determinations will need to be carefully calibrated to meet the needs of all parties. This includes a fair return for long-term committed shareholders, across the entire sector not just at Anglian Water.

We remain committed to working collaboratively with regulators to identify opportunities to phase investments, with increased investment heavily driven by statutory drivers. This continued engagement remains vital in ensuring the affordability, deliverability and financeability of our plans and those of the wider industry.

We stand ready to work with Ofwat, Defra, the Environment Agency, Drinking Water Inspectorate, the Consumer Council for Water and others to ensure the next five years deliver the goals of a new Government and the long-term needs of our growing region.



2 Guide to our Representations

Main narrative(ANH_DD_001)	Key supporting annexes	Tables and commentaries	Technical documents
Executive Summary			
View from the Board	ANH_DD_002 Board Assurance Statement, ANH_DD_071 PwC Assurance Report ANH_DD_070 Jacobs Assurance Report		
3. Our updated Plan and affordability		ANH_DD_004, ANH_DD_032 ANH_DD_039 Financial model.	
4. A focus on the long term			ANH_DD_010 Mains renewal CAC
5. Ensuring sustainable Asset Health	ANH_DD_015 Asset Management Maturity Assessment ANH_DD_054 Opportunities for improving Ofwat's approach to asset health		ANH_DD_010 Mains renewal CAC
6. Driving cost efficiency – base	ANH_DD_014 Comments on Frontier Shift and Real Price Effects ANH_DD_013 Comments on Base Modelling, ANH_DD_055 The importance of a balanced approach to frontier shift, ANH_DD_066 Report on Ofwat's proposals for energy in AMP8	ANH_DD_004 to ANH_DD-006 Data tables	ANH_DD_009 Boundary Box CAC, ANH_DD_010 Mains renewal CAC, ANH_DD_011 Leakage CAC ANH_DD_012 DWMP alignment CAC
7. Driving cost efficiency – enhancement	ANH_DD_018 Part 1: Resilient to risk of drought and flood, ANH_DD_019 Part 2: Work with others to achieve significant improvements in ecological quality of catchments ANH_DD_020 Part 3: A carbon neutral business ANH_DD_022 Part 4 Enabling sustainable economic and housing growth	ANH_DD_004 to ANH_DD-006 Data tables	ANH_DD_058 Enhancement cost modelling ANH_DD_072 DWI support for PFAS schemes ANH_DD_022 Cost breakdowns, ANH_DD_075 ANH_DD_074 Cyber maturity assessment ANH_DD_073 Habitats Directive Investigations
8. Deliverability			
9. Price Control Deliverables			ANH_DD_015 PCDs detailed commentary
10. Customers at heart of our Plan	ANH_DD_056 Customer synthesis report ANH_DD_057 Incling customer engagement report		
11. Developing Strategic Resource Options		ANH_DD_037 & 038 SRO Costs templates	ANH_DD_061 Agilia assurance ANH_DD_062 Gardiner and Theobald assurance
12. Our commitments to customers	ANH_DD_064 Impact of climate change on key operational performance measures ANH_DD_017 Outcomes detailed commentary, ANH_DD_063 PR24 PCs & ODIs, ANH_DD_065 Review of Ofwat's PR24 DD approach to leakage ANH_DD_085 PR24 risk analysis for a notional company	ANH_DD_004, ANH_DD_087,	ANH_DD_023 Lower Carbon Concrete Assets updated definition, ANH_DD_076 ANH_DD_077 – 083 ANH_DD_084, ANH_DD_024
13. Dealing with uncertainty	ANH_DD_025 A PR24 Notified Item for bioresources uncertainty in AMP8 ANH_DD_060 PFAS Uncertainty at PR24, ANH_DD_065 Review of Ofwat's PR24 DD approach to leakage		ANH_DD_059 Aqua PR19 Interconnectors Assurance Report
14. Risk and Return	ANH_DD_067 Cost of Equity, ANH_DD_068 Hybrid Bonds, ANH_DD_069 Cost of embedded debt, ANH-DD_086 Cost of new debt, ANH_DD_085 PR24 risk analysis for a notional company	ANH_DD_004, ANH_DD_032	

3 Our updated Plan and affordability

We have updated our plan in light of the Draft Determination and new information

- As part of our Representations, we have updated our plan. This comprises a suite of updates including our response to Ofwat's Draft Determination, reflecting new obligations and providing new information and evidence.
- Our proposed average household bill will increase by 25% in real terms meaning customers can expect to pay £1.68 a day on average for all of their water and wastewater needs in 2029/30.

We continue to support all customers at risk of water poverty

- In preparing our Representations we have maintained a focus on ensuring our plan remains affordable and deliverable.
- We retain our ambition to provide direct financial support to 347,000 households predicted to be at risk of water poverty.

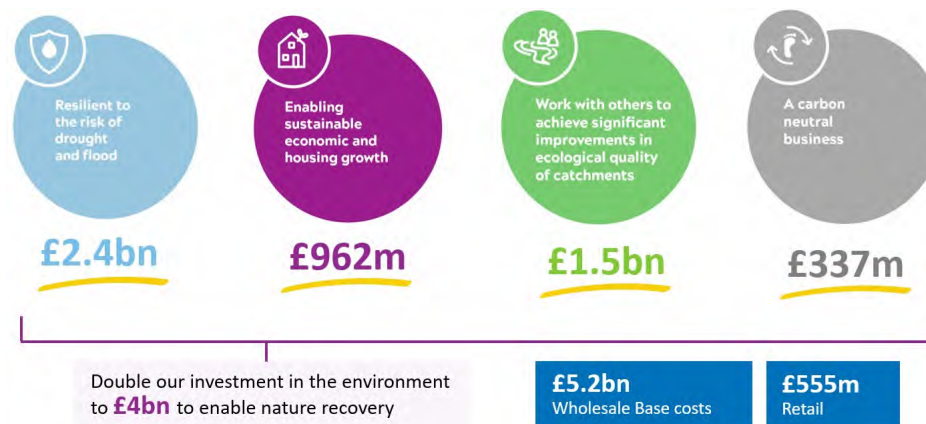
3.1 Our ambitious AMP8 plan

Our updated plan presented as part of our Representations continues to focus on our four Strategic Direction Statement 2050 ambitions.

We have continued to work closely with customers, regulators and stakeholders to ensure our plan remains the right one for our region and balances affordability and deliverability in AMP8 and the longer term.

1 See Chapter 7 ANH01 Our plan 2025-2030

Figure 1 What our plan delivers



3.2 Business plan update

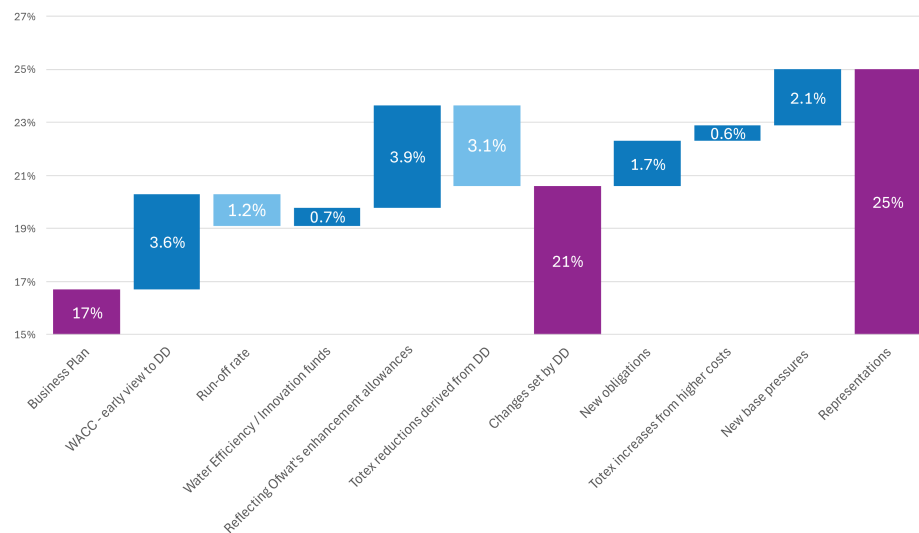
We were pleased to see that overall Ofwat assessed our plan as efficient. In preparing this updated plan we have retained our overall approach to efficiency set out in our October Plan¹, building Ofwat's cost models into our “double-lock” approach.

In deriving the overall shape of the updated plan as set out in our Representations, we have reflected changes in a number of areas; for example:

- Additional expenditure driven by new statutory requirements or where further guidance has been provided by quality regulators (for example clarity on EA UV treatment requirements);
- Updated cost information and supporting evidence that has become available since our October plan was submitted;
- Reflecting Ofwat's updated position on key aspects of the plan (i.e. efficient costs for some statutory programmes and Ofwat's updated cost of capital);
- Updated cost information and supporting evidence now available since our October plan was submitted; and
- Reflecting the overall evidence base that forms our Representations.

The chart below summarises the movements in bills from our previous March 2024 totex position to our Representations:

Figure 2 The drivers of the bill change



The revised average household combined bill will increase by 25% over AMP8. The average household bill in 2029/30 will be £1.68 a day, only a 34p increase from bills in 2024/25.

Figure 3 Future average bills (2022/23 price base, excluding inflation)



3.3 Value for money

The proposed bill increases set out in our representations amount to an annual average real terms bill increase of 4.6%. Despite these increases, water and sewerage bills remain low relative to the cost of other utilities and continue to account for a small proportion of households' weekly expenditure. Combined with the affordability support outlined below, we consider the bill continues to represent great value for money for all customers in terms of an essential service, highlighted below:

Figure 4 Water bill as proportion of average household weekly expenditure in the UK (financial year end 2022)



Accepting that a direct comparison of bill impacts across different services has its limitations, there is still some value in contrasting the customer experience with price rises and bill volatility between the water industry and energy sector. Water and sewerage bills overall remain less than 50% of energy bills.

The rise in the energy price cap of £149 announced by Ofgem on 23 August, setting a new cap from 1 October of £1,717 equates to a 41p increase per day. This increase is attributed to higher prices on the international energy market, owing to increasing geopolitical tensions and extreme weather driving competition and demand for gas, and as a result the price of wholesale electricity.

The water sector is equally challenged by rapidly changing economic and environmental conditions, tasked by stakeholders to develop a resilient and sustainable service that can adapt to and absorb the volatility in these conditions.

We accept the challenge to do this based on totex allowances set 5 years in advance, and in doing so we are working hard to deliver the bill stability and value for money that we understand is paramount to our customers.

The ability of households to manage their overall budgets is key to the affordability of their utility bills, and the efficiency of all our processes, plans and delivery mechanisms are designed to underpin that bill stability.

3.4 Affordability

Our ambitious affordability strategy is founded on the delivery of the sector Public Interest Commitment adopted to “make bills affordable as a minimum for all households with water and sewerage bills more than 5% of their disposable income by 2030 and develop a strategy to end water poverty”.

The core of our delivery on this commitment is to have capacity to provide direct financial support to all customers in water poverty in AMP8, as well as increasing the scope of our budgeting support by providing increased flexibility for customers to manage their accounts via self-service to the billing and payment options available.

In developing our Business Plan, we worked with Experian to model an updated understanding of affordability issues across our region. They analysed the impact of various bill impact scenarios resulting from a range of proposed investment programmes. This suggested that the 15.5% bill increase put forward in our Business Plan in October 2023 would lead to 9.9% of our customer base being in water poverty at its highest point (approx. 306,000 households), with a further 21% of households (649,000) potentially experiencing budgeting issues and therefore sometimes having difficulty paying their bill.

The updated plan put forward in our representations, which results in bill increases of 25%, aligns with another scenario modelled by Experian. This suggests that up to 11.1% of our customer base would be in water poverty at its highest point (approx. 347,000 households), with a further 23.5% of households (726,000) sometimes having difficulty paying their bill.

We expect to maintain capacity to provide direct financial support to all households predicted to be at risk of water poverty. We will achieve this through the agreed funding for our social tariff LITE, which if maximised at the dual service agreed cross-subsidy of £24 (2023/24 price base) would allow us to fund bill discounts of up to 50% for a further 44,000 households compared to the figures set out in SUP15 of the Business Plan submission. We would also expect as a result to continue support on the legacy Aquacare Plus tariff for a longer period as we glide path to

closing the tariff, with approximately 35,500 households still on the tariff at 2029/30; this compares to approx. 17,500 set out in SUP15, and the 72,000 households reported in the 2023/24 Annual Performance Report.

We expect our continued focus on using data sources, as set out in the Business Plan, will provide us with the ability to provide assistance to all customers seeking budgeting support.²

Through innovating in delivery, we can achieve a step change in efficiency. We have consistently outperformed the AMP7 ODI targets for helping customers struggling to pay and will build on this success in order to:

- Increase our proactive engagement and early intervention with customers based on their usage and payment profile
- Encourage greater interest and awareness amongst customer as to how and when they use water and how much it costs
- Allow customers more control and so flexibility in managing their accounts through self service to the billing and payment options available.

All of these actions provide us with confidence that our revised plans and support for customers strike the right balance for customers for AMP8 and beyond.

² We provide further commentary on affordability in ANH_DD_033 Supplementary Business Plan Data Tables Commentary SUP15

4 A focus on the long term

Summary

We welcomed Ofwat's intention to focus on the long term in PR24. We fully integrated our Business Plan and our LTDS, seeing it as the first phase of a consistent plan to 2050 and we were pleased to see that our LTDS received good feedback and passed Ofwat's quality test in the DD.

However, the DD places insufficient focus on the long term consequences of decisions. Although we welcome the enhancement uplift for climate change, we believe this does not go far enough. For Anglian, for example, the £30 million uplift is outweighed by the removal of £250m proposed resilience investment, including work to reduce single sources of supply, renewing climate vulnerable mains and increasing flood resilience.

Details are provided in relevant sections of these Representations, but a longer-term vision could be implemented by Ofwat, for example:

- Integrating the LTDS into the periodic review framework, for example by considering consistency with the core pathway, in decisions on enhancement cases.
- Recognising its botex models do not properly reflect climate change and growth drivers; increasing allowances (as detailed in our CAC and enhancement cases) in order to reflect the cost pressures of dealing with challenges we are facing right now.
- Specifically within this, increasing expenditure for mains renewal to allow for increased levels of activity. The historically measured base expenditure has enabled only 0.2% renewal per year. This is not enough to deal with climate change and other pressures, and has also resulted in cost benchmarks that reflect unsustainably low activity.
- Ofwat must create the right conditions for the long-term including ensuring the sector remains attractive to long term investors.

Ofwat has an opportunity to use PR24 to set the industry on the right path: building resilience now to mitigate the effects of climate change and avoid building up a backlog of work to be funded by future customers.

4.1 The importance of planning for the long term

Eastern England will see considerable changes over the coming years driven by a changing climate and growing communities. With extreme weather events such as floods and drought more likely in future years we need to be prepared to protect customers and the environment.

Our Strategic Direction Statement (SDS), first introduced by Ofwat in the 2009 price review, continues to set the 25 year context for our five-year business plan. We use our four SDS ambitions to guide our focus as more evidence and experience becomes available on how we need to manage and respond to challenges:



We have undertaken deep engagement with our regional stakeholders, supported with technical evidence, to understand these challenges further through our strategic planning frameworks:

- Water Resources Management Plan (WRMP)
- Drainage and Wastewater Management Plan (DWMP)
- Our Water Industry National Environment Programme (WINEP)
- Other partner-led planning frameworks including Flood Risk Management Plans (FRMPs) and River Basin Management Plans (RBMPs).

We continue to recognise the importance of these frameworks as the process for testing a range of plausible futures to inform the best options to effectively and affordably meet our challenges. As approved by our environmental regulators the evidence is also important for ensuring that investment allowed through the price review is sufficient for the next five years.

We also take a wider focus on the long-term and resilience risks through taking into account the growing national evidence base and policy direction as set out in the National Infrastructure Commission's second infrastructure assessment, Preparing for a Drier future (2018) and the recent Climate Resilience Review focused on London.

Across PR24 Ofwat has emphasised the importance of long-term thinking, for example: *"Our statutory duties require us to look to the future as well as the present. Among other things, we must carry out most of our work in the way we consider will best protect the interests of existing and future consumers, as well as to secure the long-term resilience of companies' systems, including to secure that companies take steps to enable them to meet the need for water supplies and wastewater services in the long term".*³

To ensure that a long-term perspective is effectively integrated into PR24, Ofwat have taken the following steps:

- Setting 'taking a long-term perspective' as one of the four ambitions identified for PR24. The ambitions set out what Ofwat hope to achieve through PR24, and also the basis upon which PR24 will be evaluated.⁴
- Introducing the Long Term Delivery Strategy (LTDS): 'To help make the right decisions for the long term, companies should set out their five-year business plans in the context of a 25-year long-term delivery strategy.'⁵

We wholeheartedly welcome Ofwat's intent to ensure PR24 takes a long-term perspective. The decisions we make today will continue to shape our region for generations to come, and we have a responsibility to balance the needs of current and future generations. Planning for the long-term is also a priority of our customers, who want to see us taking preventative action to build resilience to future challenges, whilst ensuring that bill increases are spread fairly across generations. However, the Draft Determinations do not go far enough.

For example, while Ofwat have introduced a sector-wide enhancement uplift to improve resilience to climate change, the scale of investment it envisages, approximately £30m, is insufficient and will slow progress on making the sector resilient to future challenges. The need to set the right trajectory of investment now is highlighted in Ofwat's and our own climate adaptation reports. The need

³ Ofwat, April 2022, PR24 and beyond: Final guidance on long-term delivery strategies, page 4

⁴ Ofwat, Dec 2022, Creating tomorrow, together: Our final methodology for PR24, page 16

⁵ Ofwat, April 2022, PR24 and beyond: Final guidance on long-term delivery strategies, page 10

is also demonstrated through ever more evidence by projects such as CReDo (Climate Resilience Demonstrator on extreme heat), highlighting the scale of adaptation required over multiple investment periods.

We welcome the intent of Ofwat's approach to long term challenges but we are concerned that, as it currently stands, the DD will not deliver the positive long-term benefit that Ofwat are seeking. As a result it will defer the cost of dealing with these challenges to future generations while exposing current customers to the risks of a changing climate.

4.2 How LTDS has informed the Draft Determination

The LTDS is a key regulatory innovation and the primary mechanism by which Ofwat are delivering upon their ambition to 'take a long-term approach' at PR24. We welcome the LTDS and have fully embraced the requirement. We believe the LTDS has the potential to better manage uncertainty and ensure each price review acts as a stepping-stone towards a mutually agreed ambition. We welcome the positive feedback on our LTDS and that it passed Ofwat's quality test.

The LTDS demonstrated the value of bringing together strategic planning frameworks, including the DWMP and WRMP, to inform efficient investment decisions using a robust and consistent evidence base of long-term need.

There is, however, little evidence to suggest Ofwat have used the LTDS in the development of the DD, beyond the quality assessment. This is concerning, as the LTDS cannot play its intended role unless Ofwat actively engages with the substance of companies' adaptive plans.

Ofwat have not engaged with our ambition or commented upon its appropriateness. For example, they have not explicitly considered our long-term ambition, as stated in the LTDS, in the assessment of AMP8 enhancement totex. This is surprising, given that totex enhancement requirements for the next five years are determined by the pathway to meet our long term ambition.

In some cases the enhancement totex has been disallowed without consideration of the impact of this intervention on our ability to deliver our ambition over consecutive AMPs. For example:

- Our ambition reflects the industry-wide target to achieve Net Zero operational emissions by 2030 (welcomed by Defra in the Strategic Policy Statement (SPS)), but parts of the associated totex have been disallowed;

- The first stage of our mains replacement programme to target climate vulnerable mains over multiple AMPs has been disallowed.
- We have a commitment to ensure there are no customers on single sources of supply by 2050, but Ofwat have disallowed the associated investment in AMP8.

In our business plan we included a Notified Item for biosolids, that is linked to the Adverse Landbank Availability alternative pathway in the LTDS. The trigger point for this alternative pathway is 2027-28. The Notified Item allowed by Ofwat in the DD is too narrowly defined and does not provide for all of the risks that might lead to serious landbank loss.

We do not see any evidence that Ofwat has truly considered whether company business plans are a sensible first step in the delivery of the ambition in the LTDS.

Table 1 in the Quality Test included the following test: ‘The company’s PR24 business plan is fully consistent with the long-term delivery strategy and the company presents a single adaptive strategy, rather than multiple alternate plans.’

The assessment itself appears to have been limited to data table consistency, and we see no evidence that Ofwat have considered company ambition. For example:

We checked the consistency of the company’s business plan and its long-term delivery strategy by comparing tables OUT1 and LS1, CW3 and LS3 and CWW3 and LS4. There were no material differences between the sets of tables’⁶

Ofwat could have, for example, considered the sustained level of investment required for Climate Vulnerable mains in our core pathway and acknowledged how this would result in cumulative pressure if considered as a base allowance.

Our sector-wide analysis of the DD suggests Ofwat is unlikely to allow investment unless it is underpinned by a government or regulatory target. For the sector 84% of statutory spend has been allowed compared to only 46% that is considered discretionary, which calls into question:

- How Ofwat are ensuring that they are supporting the delivery of broader policy objectives
- If Ofwat views the exercise of creating a long-term ambition as simply ensuring delivery of government and regulatory targets
- How Ofwat is supporting water companies to focus on the needs of their customers and stakeholders

The LTDS represents an important tool for companies to help Ofwat to meet its statutory duties that require them to take a long-term perspective. This is particularly true of their resilience, growth and sustainable development duties⁷

⁶ Ofwat, July 2024, PR24 draft determinations: Anglian Water - Quality and ambition assessment appendix, page 3

⁷ <https://www.ofwat.gov.uk/about-us/our-duties/>

⁸ In the SPS, Defra sets out the government’s priorities for Ofwat’s regulation of the water sector in England. The final SPS was published in 2022 to inform PR24 (replacing the previous SPS that was published in 2017). Defra, Feb 2022, Government’s strategic priorities for Ofwat, available at: February 2022: The government’s strategic priorities for Ofwat - GOV.UK (www.gov.uk)

- Ofwat have a primary duty to: ‘*further the resilience objective to secure the long-term resilience of undertakers’ water supply and wastewater systems, and to secure they take steps to enable them, in the long term, to meet the need for water supplies and wastewater services.*’
- Ofwat have a secondary duty to: ‘*contribute to the achievement of sustainable development*’
- In May 2024 the growth duty was extended for Ofwat: ‘*to have regard to the desirability of promoting economic growth*’

In addition, the Strategic Policy Statement to Ofwat (SPS)⁸ emphasises the importance of the long-term, both in terms of developing resilience to long-term challenges and balancing the needs of current and future customers:

- Delivering a resilient water sector is one of the four high level priorities identified in the SPS
- The SPS encourages companies to be proactive in mitigating climate change and growth impacts: ‘*The government expects the industry to plan, invest and operate to meet the needs of current and future customers. ... Water companies must rigorously assess and improve their resilience, including existing assets’ health, to a full range of hazards.*’
- In addition, the SPS states: ‘*We expect Ofwat to provide the regulatory conditions to foster a culture which gives proper consideration to the long-term and balances the interests of current and future customers fairly.*’

4.3 Building long-term resilience

Although we welcome the positive steps taken by Ofwat to build resilience, we are concerned the Draft Determination does not go far enough.

4.3.1 Resilient to the risk of drought and flood

Ofwat have taken positive steps in the DD to build the resilience of the water sector to long-term water resources challenges through using the evidence in our Water Resource Management Plan and the RAPID process to progress significant investment on water resource options, including the proposed Fens and Lincolnshire Reservoirs.

Ofwat has however disallowed enhancement totex to increase resilience totalling approximately £250m (including reducing single sources of supply, renewing climate vulnerable mains and increasing flood resilience). While Ofwat has introduced the enhancement uplift for climate change, in our case £30m, it is not commensurate with the scale of investment that has been disallowed.

4.3.2 Enabling sustainable housing and economic growth

In some cases, such as our interconnector programme, which is to accommodate urgent government priorities in enabling growth and resilience for areas such as Cambridge, the cost challenge has been severe. The cost challenge has also not fully taken into account current SPA experience, putting future delivery at greater risk.

Furthermore, the cost drivers associated with growth and climate change are being persistently underestimated. Much of the investment required to mitigate the impacts of growth and climate change is determined through Ofwat's water and wastewater botex plus models, which use historic data to determine allowances, which by definition cannot anticipate the effects of a changing climate.

Ofwat have acknowledged that the botex plus models do not adequately account for high growth: *'At PR19, we accepted that the base cost models may not sufficiently remunerate companies operating in high growth areas'*⁹. This is confirmed by our own analysis which suggests the models are unresponsive to changes in property forecasts.

The wastewater models include a variable for urban rainfall; however, this is derived using historic rainfall data and does not consider how climate change will impact rainfall patterns and intensity in the future, ignoring a wide consensus on rainfall projections.

The sole use of historic data to determine future spend allowances is likely to compound the risks faced by companies managing the challenges and volatility, impacting us and customers now.

Alignment with our Drainage and Wastewater Management Plan

As part of developing our Drainage and Wastewater Management Plan and Long Term Delivery Strategy we have been actively considering the future challenges that face our asset base. Since submitting our business plan we have continued to explore the impacts of a changing climate and growth on our water recycling networks.

Our recent analysis using latest rainfall data suggests that in AMP8 more than 20% of external flooding and pollution incidents and more than 10% of internal flooding incidents will be attributable to climate change in AMP8. This means there is a significant pressure from climate change over the next five years which is consistent with the conclusions of our DWMP and confirms the need to act now.

The government has also set out clear growth intentions that have already been acted upon through the introduction of mandatory housing targets and planning reforms to accelerate housing delivery. Our initial analysis suggests that once implemented this could represent approximately 40% more homes being planned for by Local Authorities across our region.

In the context of renewed government ambition for growth, alongside experiences of extreme and volatile weather events, our DD representation brings AMP8 investment for network reinforcement and sewer flooding, that was deferred through the LTDS to AMP9, back in line with our final DWMP, in keeping with the Ofwat PR24 Final Methodology.

In recognition of model limitations on forward looking variables we propose that this could be best achieved through an adjustment, or other mechanism at Ofwat's discretion, to botex plus models to augment the implicit allowances for network reinforcement and sewer flooding. We set out in more detail the case for an adjustment to network reinforcement and sewer flooding in our DWMP alignment cost adjustment claim ANH_DD_012.

4.3.3 Work with others to achieve significant improvements in ecological quality

We welcome Ofwat's support for our Advanced WINEP proposal. Over the next five years the proposal will enable us to establish a systems-focused, outcomes-based approach to environmental enhancement. Through A-WINEP we will drive a step

⁹ PR24-DD-TMS_Cost-adjustment-claims.xlsx (live.com).

change in partnership working that includes identifying innovative delivery models and funding sources. In our LTDS core pathway we assume that beyond PR29 our statutory environmental obligations will be delivered via an A-WINEP approach.

4.3.4 A carbon neutral business

Our PR24 investments were developed to deliver on our SDS ambition to be a carbon neutral business, as well as to align with our Net Zero Routemap and our Long-Term Delivery Strategy.

Our ambition reflects the industry-wide target to achieve Net Zero operational emissions by 2030 but Gas-to-grid, HGV electrification, and some nitrous oxide investments are deemed to be funded by base expenditure.

To support the reduction in process emissions we welcome that Ofwat has permitted an allowance for eight schemes but Ofwat should also make an allowance for nitrous oxide (N2O) Real Time Control which presents an innovative approach to monitoring for the purposes of process optimisation.

In each of these areas Strategic planning frameworks and the LTDS should have a greater role to play alongside the modelled allowances in adjusting for future volatility. The frameworks require planners to use scenarios (including Ofwat's Common Reference Scenarios) to determine future needs and then understand what actions need to be taken in the short-term to prepare for an uncertain future. Planning in this way helps to identify strategic and low/no regret solutions that will deliver long-term best value.

4.4 Pressure on base

Ofwat has made several decisions in the Draft Determination that affect our ability to maintain our network from base, including disallowing key enhancement investments, while setting more stretching performance targets. For example:

- Climate vulnerability - £198m. Defined as day to day management of resilient services.
- Bioresources treatment capacity - £85m. Growth components to be funded by base.
- Net zero - £70m Gas to grid and HGV electrification should continue to be funded by base expenditure.

Alongside rising expectations on mains renewal rates our ability to build resilience to long-term challenges is undermined by these unsustainable pressures. The LTDS, in keeping with Ofwat's guidance, is focused on enhancement investment required only after applying challenging assumptions about what could be funded through base in the future (such as technological improvement). If Ofwat's DD

position on base is projected over multiple AMPs the pressure becomes compounded and brings into question the impact on future generations of deferring critical investment.

4.5 Investability for the long term

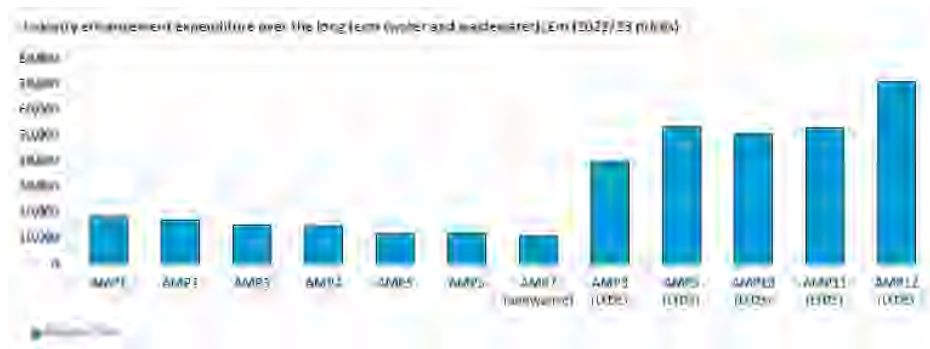
Ofwat's Draft Determination includes several decisions that, in combination, suggest that the needs of future customers have not been adequately reflected.

By not going far enough to adequately mitigate the impact of growth and climate change the DD increases the risk of service failures for future customers. It may also force us to condense essential investment into a shorter period, increasing delivery risk and future bill increases.

In addition, the Draft Determination disallows part of our Net Zero enhancement totex (£86m in total, for gas to grid, electric HGVs and process emissions). Reducing emissions is in the interests of future generations and is a clear priority of our future customers. The Draft Determination is a missed opportunity to provide clarity and support for an ambitious trajectory of emission reduction across the sector.

Analysis of water company LTDS core pathways shows that investment needs will continue to increase across the 25 year period ¹⁰.

Figure 5 Long term industry enhancement



Investment requirements may well be greater than suggested by the above. If the future turns out to be more adverse companies will need to trigger alternative pathways, increasing enhancement totex requirements. For example, the forecast

¹⁰ Moody's investors service, Oct 2023, Regulated Water Utilities - UK: Enhancement expenditure set to rise materially over the next 25 years, page 2

expenditure requirements in our core pathway are £26bn over the 25 year period. More severe climate change impacts would trigger our High Climate Change alternative pathway, which requires an additional £5bn investment.

The LTDS demonstrated that the nature of the water industry is changing and future AMP periods will be defined by the delivery of large infrastructure schemes on a scale not seen before. As we set out in Chapter 14 Risk and Return this has profound implications for investors. Ofwat must create the right conditions for the long-term including ensuring the sector remains attractive to long term investors. This will require a credible framework for attracting equity finance and Ofwat will need to adapt how the sector is regulated.

Against this backdrop, we are very concerned that the Draft Determination has not given sufficient consideration to the investability of the price control, and that in its current form, it is not an investable proposition. Without ensuring a fair return, the companies will not be able to secure the investment needed to deliver their LTDS.

Our asks of Ofwat:

Our representations put forward a package of measures designed to recalibrate the draft determination to better reflect long-term needs. This includes:

- Making targeted increases to totex allowances for resilience and Net Zero
- A range of measures to relieve the unsustainable pressure on base
- Setting performance targets to reflect company performance in AMP7
- Addressing the overall balance of risk and return

We would like to see Ofwat engaging in the substance of the LTDS, in particular:

- Does it agree with the scale of long term ambition and core pathway to achieve it?
- Are companies taking appropriate action to understand and address emerging challenges?
- Has the company struck the right balance between ambition and affordability?
- As the LTDS has met the necessary standard, the Final Determination must reflect a pathway for investment to meet key challenges linked to climate change and growth.
- When making changes to AMP8 plans, including disallowing investment, Ofwat should explicitly consider the impact on companies' ability to deliver their core pathway.

By integrating the LTDS more thoroughly into the mechanics of the Price Review, Ofwat will be able to better meet their duties and the SPS, as well as ensuring PR24 creates the positive legacy for future generations.

These adjustments are necessary to rebalance the determination to meet Ofwat's duties and to set us on the right course for meeting current and future challenges.

5 Ensuring sustainable Asset Health

Long term Asset health is a widespread concern

There is growing collective concern on the long term resilience of the water and sewerage asset base. It is widely accepted that investment and activity are currently well below sustainable levels; while cost allowances, set using benchmark companies with low activity, lock in this unsustainable position. This concern has most recently been explored by the National Infrastructure Commission who cited a lack on a comprehensive and consistent understanding of asset condition now and how this may change in future. Working with a range of stakeholders and companies, we have sought to promote the development of a suite of potential policy packages to address the current concerns with asset health and the necessary reform of the regulatory approaches needed to ensure a focus on long term asset health.

Ofwat's Draft Determination does little to address these concerns

Ofwat has said it recognises the problem and we welcome the collaborative work it is undertaking with Defra and the industry to address this in the long term. However, the Draft Determinations are not consistent with this ambition, nor with the duty on Ofwat to promote good asset management, set by the UK Government's SPS.

Across the sector, Ofwat disallowed over £1.4 billion of resilience funding and set maintenance allowances for most companies based on unsustainably low historically based activity.

The application of Ofwat's mains renewal adjustment is partial and inconsistent. Only seven companies received uplifts, but for existing poor assets, not on forward-looking needs. There are too many pressures on base, so even Ofwat's low 0.3% annual mains renewal target is not fully funded. Ofwat has dismissed concerns about a maintenance 'trough' but a simple assessment of long-term trends shows it to be real.

Our representations set out a suite of actions to improve the longer term asset health

As part of our Representations, we have updated our Asset Management Maturity Assessment, and together with our Asset System Resilience Appraisal, have underpinned the work set out in our Business Plan. Despite

this evidence, Ofwat's Draft Determination disallowed our proposals to increase mains renewal rates targeted at climate vulnerable mains and discounted our proposed uncertainty mechanism for meter boundary boxes. Both of these activities would have allowed us to increase asset renewal rates beyond historic levels reflected in current baselines in the specific areas we had identified as highest risk in the near term.

We ask Ofwat to update its approach to Asset Health; and specifically:

- Explicitly recognise, as WICS has done in Scotland, that future overall asset replacement needs to be significantly higher than in the past.
- Continue to build on the AMMA and the work on Operational Resilience:
- To place weight on Asset Management Maturity levels in assessing funding requests to address asset health needs, thereby incentivising companies to invest in developing good practice in line with the SPS duty to challenge companies to understand the health of their assets.
- To review again the risk of a maintenance trough suppressing industry levels of capital maintenance, and evaluate policy reform options that could be adopted ahead of PR29, as highlighted by the paper commissioned by WaterUK on Infrastructure Health.
- To amend the mains renewal PCD to reflect an implicit allowance of 0.2 percent per annum within base.
- Recognise that the resilience uplift allowed for in DDs is far less than requested in detailed enhancement cases by companies and consider again if it is prudent to continue to push needed investment, particularly with respect to climate change, onto future customers.

5.1 Long term asset health is critical

The ability of water and wastewater assets to deliver safe and resilient services over the long term is critical. They can only do this if they are healthy and operationally resilient. There is growing evidence that the combination of the existing regulatory framework and the current level of maintenance investment is insufficient to deal with an aging asset base exposed to pressures such as extreme weather and climate change. These impacts are being felt now.

The UK Government's SPS ¹¹ places a duty on Ofwat to “*promote good asset management and challenge companies to better understand the health of their assets and adopt a strategic and long-term approach. This approach should provide for resilient services taking account of growing pressures, including climate change and population growth, and the needs of a healthy environment, and provide value to customers and wider society in the longer-term.*”

5.1.1 There is growing evidence of the insufficiency of current levels of activity

Current asset replacement rates are insufficient, whether that be the proposed rates in company business plans, the actual renewal rates being delivered by companies or the rates which Ofwat has recently formed a view are implicitly allowed in their base allowances. Regardless of the benchmark used, the implied asset lives from these low rates are well in excess of what can be reasonably expected to be true. A [2022 report by Economic Insight](#) for Water UK estimates the average asset life to be only 60 years, and finds that “the evidence suggests that there is a need for a step-change in the level of asset maintenance and replacement”.

More widely, the need for a step change in activity levels to deal with future challenges has been recognised. The [Water Industry Commission for Scotland \(WICS\)](#) as part of the current Strategic review of charges for 2019-26 identified asset replacement levels far below the sustainable level, and increased capital maintenance funding to address this. WICS is also now consulting on their [SRC27 methodology](#) which maintains their focus on the long-term and “transitioning towards a level of charges that reflect the full cost of replacing assets over time”. Central to this is a requirement for Scottish Water to continue improving its understanding of long term asset replacement costs and the medium and long term consequences of not making these investments. Before that in North America the American Water Works Association (AWWA) published their report 'Buried No Longer' ¹² setting out the case for an 'Era of Replacement' that was necessary to protect future generations.

Whilst the needs of every company's assets will inevitably differ, making too close a comparison unwise, we would expect that Scottish Water's needs to reach a sustainable level of asset maintenance can provide a rough indication of what may be required for our own asset base. In SRC21, WICS suggested a long term sustainable level of between £620 million to £770 million per annum (2017/18 prices) for Scottish Water's existing asset base. Using our respective net book value to scale this amount for Anglian, and inflating to 2022/23 prices, would imply between £1.2 billion and £1.4 billion per annum. The capital maintenance allowance in the

DD is £281 million per annum, around 20 percent–23 percent of the sustainable long term level required. Even allowing for the imprecise nature of this comparison, the conclusion holds that the current allowed level of investment in asset replacement is far below where it should be.

5.1.2 The challenges to asset health are compounded by a reliance on backward-looking approaches

In 2019, we commissioned a report by [John Earwaker and Harry Bush](#) that highlighted the need for forward-looking assessment of capital maintenance needs:

“... projections for future capital maintenance expenditure cannot reliably be built up solely from analysis derived from past spending patterns. Any method which uses inter-company aggregate cost benchmarking and/or which rolls forward historical levels of expenditure risks locking in a fixed level of maintenance activity, irrespective of current or prospective engineering requirements. Such analysis ought therefore to be complemented and bolstered by some form of follow-up work which allows for the possibility that required volumes or work at company level may need to be higher or lower than in the past and which takes account of changing requirements over time and associated risk management issues”

Ofwat recognised these concerns too and, consistent with the suggestions of the CMA, advocated for the use of forward-looking approaches in their PR24 Final Methodology. However, so far these have not been implemented.

5.1.3 There is strong support for taking a long-term view

There is growing alignment on the need for decisions at Price Reviews to be considered in the wider, longer term context.

In 2022, [Skylight Consulting](#) published a report asking how Ofwat's approach could focus on the long-term, highlighting the limitations of the current approach:

“aggressive efficiency and/or service improvement targets can, in themselves, intensify biases in the regulatory regime that lead to underfunding of base allowances, as well as undermine the longer term focus required by the sector”

In 2023, the [National Infrastructure Commission](#) wrote to Ofwat raising concerns that “*at present there does not appear to be a comprehensive and consistent understanding of asset condition across the sector and how this may change in the future*”. The letter encouraged Ofwat to develop consistent forward-looking metrics for defining and measuring asset health, underpinned by regulatory mechanisms or incentives.

¹¹ [February 2022: The government's strategic priorities for Ofwat - GOV.UK \(www.gov.uk\)](#)

¹² Available in pdf here [AWWA Buried No Longer \(urbanwaterslearningnetwork.org\)](#)

5.2 Our work on asset health

We recognise the importance of this issue. That is why we're committed to developing our understanding of the health and future needs of our asset base. It is this understanding that has shaped our AMP8 plan in the longer term context of managing our assets.

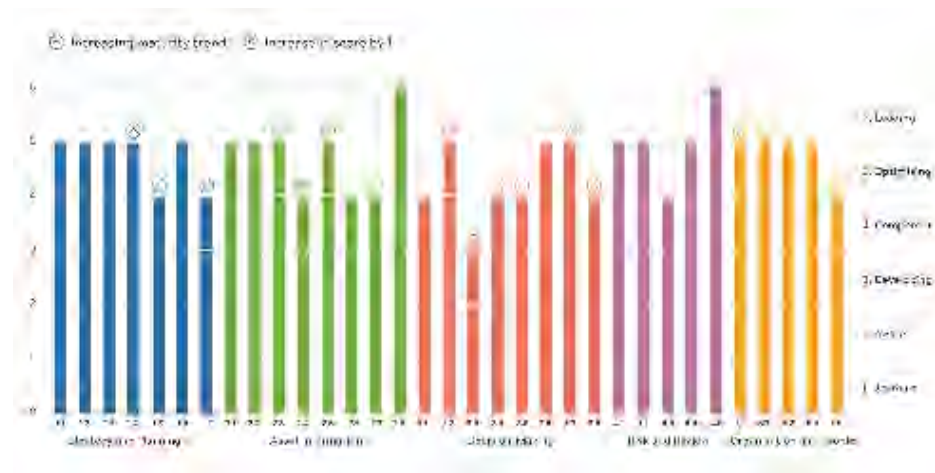
5.2.1 Our leading Asset Management capability allows us to understand our assets

In 2021 we helped to co-create the Asset Management Maturity Assessment (AMMA). Our submission was independently assessed by Ofwat and Arup as having the highest overall score of any company in England and Wales. We believe that this maturity assessment should give credibility to our work to understand and manage our assets, and our associated requests for funding in the price review.

As part of our Representations, we have completed a full review of our maturity levels using the 2021 AMMA questions, providing this as an appendix to our DD Representations in document ANH_DD_015. We had this updated view of maturity independently assessed by AtkinsRealis.

The review shows our increasing maturity in several areas, importantly many of which were areas, many in direct response to Ofwat feedback (see [Figure 6](#)). This demonstrates that we have responded to the feedback provided and have taken action to improve important issues like risk management and asset health. The review also notes areas in which we plan to improve further with initiatives underway that indicate an increasing trend towards the next level in the maturity scale. The figure below shows our maturity across each of the areas of the AMMA and movement from 2022:

Figure 6 Our 2024 maturity scores and trend from 2021



We firmly support Ofwat's drive for a consistent assessment and understanding of companies' asset management maturity. However, if Ofwat want to incentivise companies to continue to invest time and resources in these activities, it must be evident how these approaches impact Ofwat's assessment of companies' proposals. There is no evidence in the Draft Determinations of Ofwat using these assessments.

5.2.2 We have provided a forward-look of our asset needs

Aligned to the findings of [Bush and Earwaker](#), we have developed a forward look of our asset needs. In our Business Plan we presented our 'Asset System Resilience Appraisal (ASRAP)'¹³ setting out a methodical analysis of the short, medium and long term resilience of our assets from 2025 to 2050. The ASRAP summarises for each of 9 asset classes including pipelines, treatment works and civil engineering assets such as storage points, the predicted performance over time given a range of levels of maintenance activity.

Ofgem in its [RIIO network price controls](#) introduced Network Asset Risk Metrics (NARMs) which it uses to assess the consequence and probability of asset failure, linking capital maintenance with customer benefit.

We are also working with the industry through UKWIR to align asset deterioration approaches to better support regulatory approaches akin to NARM in the future.

14

This showed that, in general, mechanical and electrical assets are being prioritised within maintenance as those assets most quickly lead to service failures. Civil assets however, given their longer asset lives, have lower levels of investment, implying longer asset lives and potentially, storing up risk for future customers. It is on the basis of the evidence set out in our ASRAP that we have developed our expenditure proposals for water mains renewal and our expenditure proposals for the replacement of meter chambers.

Figure 7 Modelled asset performance summary over 25 years at current levels of capital maintenance

Asset class		Unmitigated			Mitigated		
		5 year	10 year	25 year	5 year	10 year	25 year
Pipelines	Treated water mains	↘	↓	↓	↔	↘	↓
	Gravity sewers	↘	↓	↓	↔	↘	↓
	Rising mains	↔	↔	↔	↔	↔	↔
Treatment	Water treatment works	↔	↔	↘	↔	↔	↘
	Water recycling centres	↔	↔	↘	↔	↔	↘
	Bioresources	↔	↔	↘	↔	↔	↘
Pumping	Boosters	↔	↔	↔	↔	↔	↔
	Sewage pumping stations	↔	↔	↔	↔	↔	↔
Storage	Storage points	↘	↓	↓	↔	↘	↓

As identified in our Business Plan, this forward-look of our asset needs identifies the need to increase capital maintenance activity, with the impacts of constrained levels of base funding being mitigated only in the short-term. Priority areas to increase activity for Anglian includes water mains renewal, but also gravity sewers and storage points, with the latter a key concern also of the DWI. Should regulatory

approaches allow for increases in maintenance activity more generally beyond water mains considered in the Draft Determinations, we are clear on our priorities for further action.

5.2.3 We have considered how the future will be different to the past

The PR24 methodology also asks companies to consider a range of plausible future scenarios and ensure that service performance is resilient to these. Following our 2020 climate adaptation report [Climate Change Adaptation Report \(anglianwater.co.uk\)](https://www.anglianwater.co.uk), we invested in understanding the effect of Ofwat's LTDS common reference scenarios for climate change on asset health and found a strong correlation between hotter drier summers and increased water mains failure risk. This is consistent with the findings of the insurance industry on building subsidence and on highways authorities for damage to road surfaces. The research was produced in collaboration working with academics and advanced analytics. The work was nominated and shortlisted as a finalist in the Institute of Asset Management Awards 2023. Since publishing this analysis we are aware that other water companies have been completing similar exercises to assess their own risk and at least one other water company is adopting the same definition of climate vulnerable mains having witnessed the same failure mode in 2022.

This forward looking risk assessment further reinforces the need for higher levels of replacement. Conversely, we also examined the effect of changing water chemistry on water mains failure risk given the commissioning of our new PR19 interconnectors changing how water is distributed within our region coupled previous research into degradation of AC mains in contact with softer water. We did not find compelling evidence to support investment for this risk.

We are disappointed that Ofwat has been dismissive of our enhancement case for climate vulnerable mains in the Draft Determination, which has been informed by this industry leading work.

5.2.4 The Infrastructure Health project makes a case for regulatory reform

In 2024, the first phase of a [collaborative project](#) led by a steering group of water companies (including Anglian), Water UK, Ofwat and Defra and delivered by Reckon and Jacobs sought to identify critical elements of a new regulatory framework for measuring, managing and funding asset maintenance. This was launched at a high profile event in London in May which started an open period of consultation and feedback on the proposals.

14 To enable the sector to progress towards a more standardised approach to forecasting deterioration in line with the NARM methodology used by Ofgem, we have worked with UK Water Industry Research (UKWIR), Mott MacDonald and the University of Cambridge, to launch the 'Common Definition and Calculation of Asset Health' project. This research will propose deterioration curves for the industry for some key asset classes, as well as common approaches to visualisation of asset health data. This project will conclude in late 2024 or early 2025.

This work provides a solid platform for all parties to build a case for reform for PR29, but importantly, Ofwat should be mindful of the limitations identified with the current regime in reaching their Final Determination for PR24.

It highlights risks to future performance, under-the-radar outcomes not captured by existing ODI and monitoring, insufficient resilience, higher bills than would otherwise be the case over the long term and through a combination of all of these risks, sustained performance problems that require inefficient later expenditure to address. This point was explored by the NIC, for example in its report ‘[Preparing for a drier future](#)’.

A range of policy options were developed and grouped into five policy packages. These packages covered a range of reforms from the more modest (P1) to more radical (P5). The conclusions of this first phase indicates a reasonably strong case for change, and Packages P2, P3 and P4 were favoured for further work. Common elements of these packages are:

- More comprehensive and more informative data reported, on a common basis, on the reliability and performance of water companies' assets, and their broader operational resilience.
- An approach to setting price control expenditure allowances that remains driven by Ofwat-owned modelling and analysis (rather than starting from companies' business plans) but which is more forward-looking. This would involve more explicit consideration of the expenditure that efficient companies would need to manage the performance of assets going forwards, and greater attention to how asset reliability has evolved over time when drawing on evidence on historical costs.
- More effective arrangements for ensuring that water companies are accountable - and incentivised - to manage risk to asset reliability and future outcomes effectively when taking decisions relating to capital maintenance activities.

We are concerned that the Draft Determinations do little to address the issues identified in this work. Whilst primarily intended to inform PR29, we believe Ofwat should be mindful of these issues in PR24. We also believe that there is some scope to bring forward elements of the proposed regulatory reforms, which we consider further at the end of this chapter.

Ofwat wider asset health activity

We are encouraged by Ofwat's recent corporate membership of the Institute of Asset Management (IAM) and the work of the Operational Resilience Working Group (ORWG). Ofwat are developing an Integrated Monitoring Framework which we have actively supported, responding to data requests and meeting with the Asset Health and Operational Resilience team. We were pleased to welcome this team, along with members of the Defra Water Performance team, to visit two of our sites in July.

At present this workstream within Ofwat is deliberately separate to the work on price controls. We believe that the two workstreams should be increasingly aligned and inter-dependent, with incentives in the price review for companies to develop knowledge of their assets so that the issues can be better understood and addressed to achieve inter-generational equity.

In response to the invitation to comment on the proposed more granular reporting data on base expenditure and outputs¹⁵, we agree that annual activity tracking should be introduced in APR for other areas beyond pipelines to ensure that by locking in higher levels of activity in this area, Ofwat do not inadvertently lock in lower levels of spend in other asset classes. We now note that Ofwat have proceeded with this requirement and have sent a capital maintenance data request. We recommend that this forms part of Ofwat's new Integrated Monitoring Framework (IMF), overseen by the ORWG.

It is important that the industry and Ofwat work together to accelerate the pace at which change is taking place, ensuring that areas of priority are identified, and receive sufficient capital maintenance to prevent future asset failure.

5.3 Limitations of the PR24 approach

We welcome the recognition by Ofwat in the Draft Determination that:

- under the current regulatory framework there are risks that companies focus on the short term in a way that leads to deterioration of asset health in the long term,
- this is a sector-wide issue, and
- funding in AMP8 needs to be higher than historically to achieve improvements in asset health.

However, overall the Draft Determination continues to rely on backwards looking data, and fails to take action to materially address asset health concerns, with the notable exception of potable water mains. We are left concerned that positive signs of movement on this issue by Ofwat have not been manifested effectively in the Draft Determinations. We set out our representations below.

5.3.1 The Draft Determination takes a narrow view of asset health

This response to dealing with only a single asset class is narrow and presents problems. Ofwat itself recognises concerns with other asset classes, and companies have in some cases sought additional funding in other areas but Ofwat rejected these. Ofwat's focus on water mains to the exclusion of other assets could well lead companies to focus investment in this area to the detriment of others. Apart from failing to build sustainable networks, this would also have knock on impacts for efficient cost benchmarking in the future, if companies spend less in some areas than they would otherwise have done.

In the week before submission we note that Ofwat have sent out a Capital Maintenance information request which seems focused on this issue. The information request notes "*We have not collected data at this level of granularity since 2009-10. This somewhat limits our ability to gain a detailed understanding of what assets companies are investing in and what they are delivering to improve asset condition. Removing this information asymmetry is one of the reasons that we want to collect more granular data going forwards. But this data will enable us to better understand what the sector has been delivering through its historical base expenditure allowances, and what it may need to do in the future.*" We see this as a positive step to address the risk identified, but encourage the Ofwat Price Review team to work together with the Ofwat Asset Health and Operational Resilience team to ensure a holistic view of asset health and maintenance activity is fed into the Integrated Monitoring Framework (IMF).

In the Draft Determination Ofwat state that "*We expect companies with poor condition sewage pumping mains to set out how they intend to improve the condition of their sewage pumping mains over 2025-30*". In the DD documents we could not find any data to support this analysis. Therefore we compiled our own view of sewage pumping main condition using line CWW21.7 sourced from publicly available data tables on company websites. We also adopted the same approach to quantifying asset health as Ofwat use for water mains, which is the % of pipes classed as either grade 4 or grade 5.

This analysis shows that on average Water and Sewerage Companies have 10.63 percent grade 4 and 5 sewage pumping mains. For Anglian Water the % of grade 4 and 5 sewage pumping mains is 2.83 percent. On that basis we have not set out any further action on this asset class. However, we note the wide variation in condition grade data in company data tables, and we suggest this may merit further clarification at a later date.

5.3.2 Continues to rely on backward-looking assessment for cost allowances

The approach to cost assessment for base costs remains to a large degree the same as at PR19, with a key change in the targeted approach to mains renewal in PR24 DDs where additional funding has been allowed. However, this is highly concentrated with additional funding to only six of 17 companies, with three companies receiving 85 percent of the additional funding. The approach also requires other companies to increase mains renewal for no additional funding.

5.3.3 Incorrectly concludes there is no maintenance trough

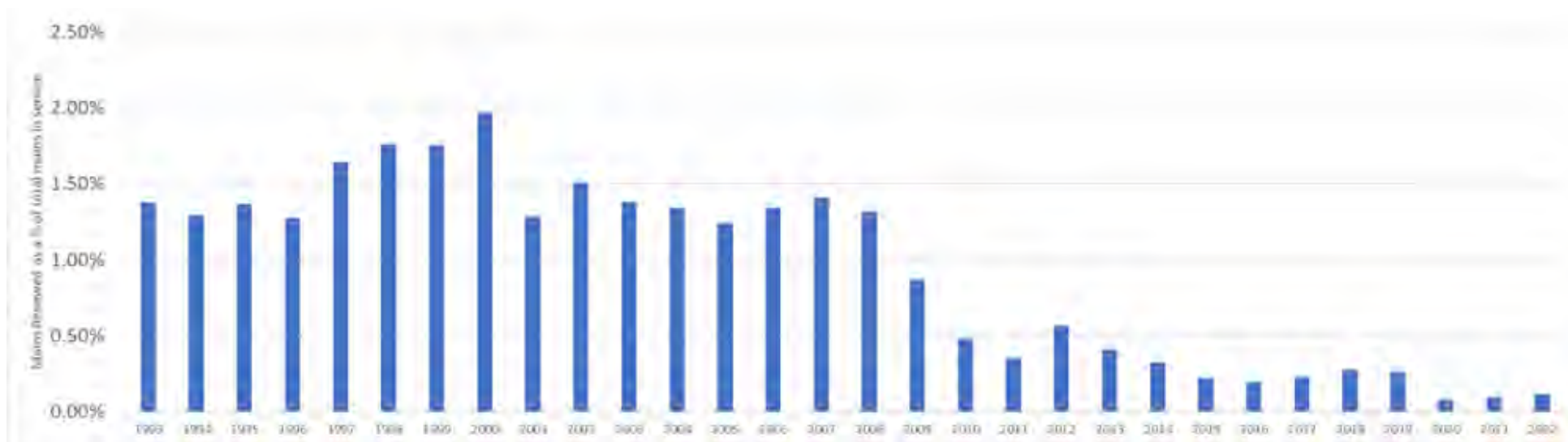
We agree that there is a risk that companies that set the efficiency benchmark may be distorting measures of base efficiency by reducing maintenance levels and taking on inappropriate levels of risk.

Ofwat's DD fails to address this risk and has set botex allowances across the sector that are unrealistically low, as a result of using benchmark companies that are in a capital maintenance trough (evidence presented below).

We believe that the DD analysis of whether the benchmark companies are in a capital maintenance trough has three key flaws, which have led Ofwat to understate the problem:

- **Period.** The analysis examines the period from 2011-2023 only. We believe that the trough began around 2008 at the time when botex models were first introduced, and therefore this analysis takes no account of the change in activity levels over time. Below we present evidence of these low historical renewal rates for the industry as a whole, specific to water mains renewal as Ofwat has focussed on this in the Draft Determinations. Although we do not have access to data that reliably splits base and enhancement activity for mains renewals prior to 2011, it is clear from the graph below total mains renewal rates dropped sharply from 2008 onwards:

Figure 8 Pipe renewed (% per annum)

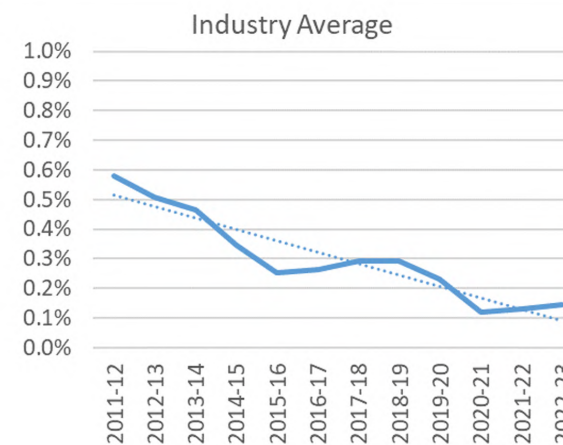
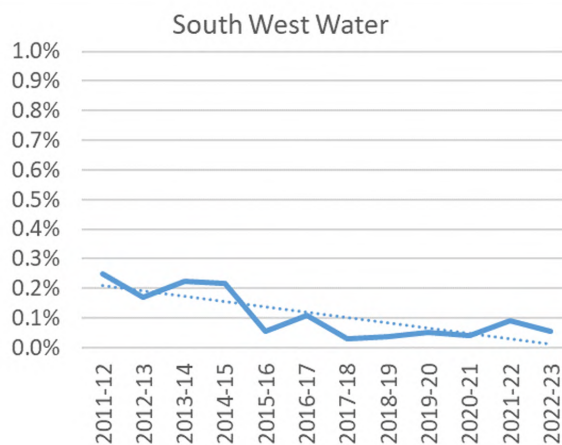
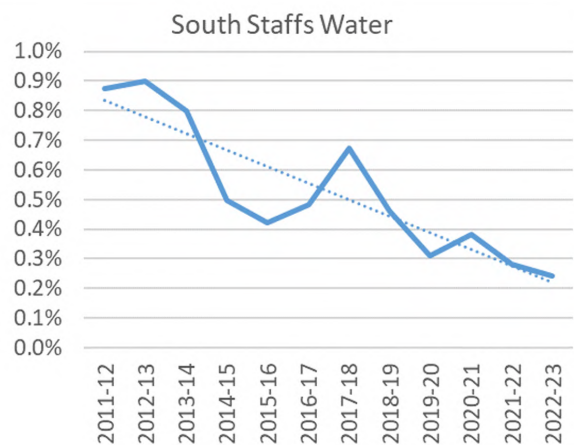
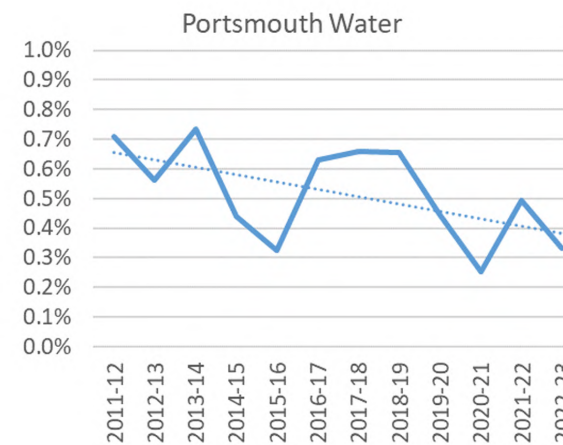
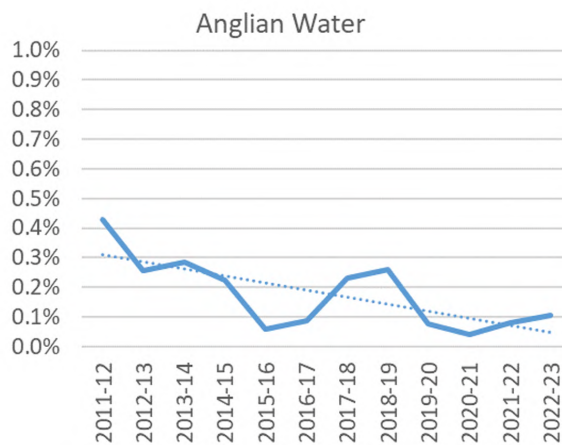
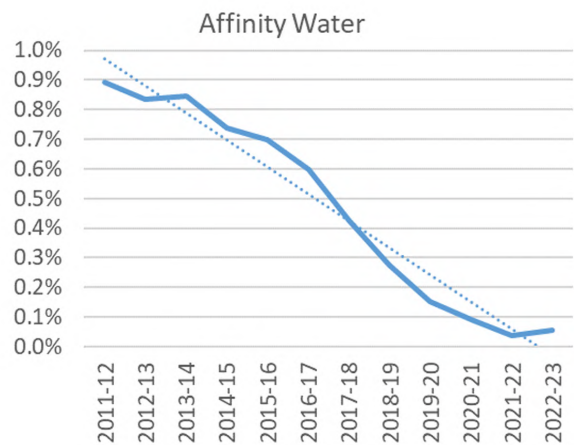


- **Spend vs activity.** The analysis uses £m spend levels over time, as per the analysis presented to the CMA¹⁶, rather than levels of activity or delivered outputs. By using levels of expenditure, there is a risk that other factors could be driving spend up while maintenance activity is falling. For instance, there is a risk that input prices could have gone up faster than CPIH meaning companies can complete less activity for the same spend. There is also a risk that capital maintenance is spent on other things such as installing new equipment to comply with existing legislation, or to increase resilience, rather than maintaining existing equipment and assets. We can see that the companies highlighted as setting the efficiency benchmark have reduced renewal rates by over two thirds over the panel length (2011-23) for water, and by roughly half on sewer renewal.

The DD analysis examines spend levels for the efficient companies for water (SSC/SWB/PRT/ANH/AFW) and for WR (WSX/SVE/UU). Below we replicate Ofwat’s figure 2 in section 2.1.3 of the Expenditure Allowances Document, replacing £m spend on capital maintenance with % of pipelines renewed per year. This shows that all 5 benchmark companies have substantially reduced maintenance activity in this asset class:

16 para 3.80 Response to Anglian Waters statement of case

Figure 9 Annual percentage mains renewal for benchmark water companies and industry average all show a clearly reducing trends



- **Infrastructure growth.** Although the analysis notes that expenditure has increased over time in absolute terms, it does not test whether this increase has kept pace with the growth of the asset base over the same period. This is possible to test using either Gross Modern Equivalent Asset Value (GMEAV) or Regulatory Capital Value (RCV), a practice that Ofwat has previously referred to as 'Broad Equivalence'. Our own analysis¹⁷ using Ofwat's previous method has shown that across the sector the increases in capital maintenance spend do not keep pace with RCV growth, implying that in real terms, activity levels on maintenance are reducing. In the graph below we present data for all companies showing annual spend compared with RCV:

Figure 10 Capital maintenance and expensed maintenance spending as a % of Wholesale RCV over time



¹⁷ p58 ANH38 Asset Systems Resilience Appraisal

¹⁸ Sustainable renewal rates of between 0.9 percent (as per our Mains Renewal CAC) and 1.2 percent (as per UKWIR research into long term investment in infrastructure 2017)

¹⁹ Derived using 350,000km of mains in service as an approximation

²⁰ Derived from base allowances using business plan capex:opex splits

²¹ Ofwat PR24 DD Expenditure Allowances section 2.2.1 page 37

We are concerned that by not taking these three issues into account when calculating base allowances, Ofwat are setting unrealistically and unsustainably low maintenance allowances and holding the industry to lower asset renewal rates than are needed to create resilient networks in the long term, while building up costs to be met by future customers.

To give a sense of scale of the issue (and taking Ofwat's view of the efficient unit rate for water mains renewal of £292/m), for companies to reach a sustainable renewal rate¹⁸ compared to our view of today's implicit allowance within base (0.2 percent) would require an additional £715-1,022 million per year in base allowances, or **£3.6-5.1 billion per AMP**¹⁹. For context, this is around 44-62 percent of total water network+ capital maintenance for the sector in the PR24 DD of £8.2 billion for AMP8²⁰. We would expect uplifts to be required for other asset classes such as sewerage or other civil structures. Ofwat's mains renewal adjustment in the Draft Determination is a step in the right direction at £296 million over AMP8, but does not go far enough to set the industry on a sustainable path to long term asset health.

5.3.4 Overstates the implicit allowance for mains renewal

We agree that renewal rates for mains are unsustainably low, and that capital maintenance levels should be increased to address this. Although we accept Ofwat's proposal of a PCD to underpin minimum levels of mains renewals within base expenditure, we challenge the calculation of the Draft Determination value of 0.3 percent per annum implicit allowance for mains renewal. We propose that 0.2 percent should be considered covered by base, a level that better reflects the level of activity by the companies Ofwat has used to set the funding benchmark. The full detail of the rationale behind this is set out in our Mains Renewal Cost Adjustment Claim appended to our Representations. We welcome Ofwat's suggestion²¹ that "Companies should undertake further work during 2025-30 to identify whether they need to increase their mains renewal rate further to be sustainable". We present evidence to support a view of sustainable renewal rate for our region of around 0.9% per annum (see Mains Renewal CAC for details).

5.3.5 Underplays the need to invest in the resilience of the asset base

In relation to the SPS duty for resilient services taking account of growing pressures, we are disappointed to note that across the sector, Ofwat have disallowed over £1.4 billion of resilience funding (51 percent of the total requested for water price control and 65 percent for the wastewater price control), in many cases citing base allowances as adequate to cover these investments without any validation that this is true. The introduction of a sector wide £300 million uplift for climate change resilience does little to address the scale of risk faced across an asset base valued in the region of £700 billion.²²

5.3.6 Adds pressure that will further incentivise short-term approaches

In general, the additional pressure exerted on base costs pose further risk to companies' ability to prioritise and deliver the levels of investment suitable to best manage asset health. These pressures arise from a number of factors including:

- historic upper-quartile cost benchmarking distinct from any assessment of whether companies are sufficiently investing in capital maintenance,
- productivity improvement expectations with no evidential grounding, and
- continuous stretch on the level of performance improvement that must be delivered from base allowances.

5.3.7 The mains renewal PCD is inadequate and poorly calibrated

In the Draft Determination, Ofwat propose a new mains renewal PCD within base. The intention of the new PCD is to guarantee minimum levels of mains renewal, arising from a concern that although diverting spend to operational strategies could improve performance in the short term, it could lead to a deterioration in asset health in the long term²³.

We are concerned that a PCD with penalty rates calibrated to return more than the funding to customers, based purely on km of renewal could drive companies to replace the cheapest lengths, or highest bursting lengths, rather than those that are most cost beneficial to customers and the environment. This would not be in line with the AMMA recommendation #6 "*Companies should systematically consider wider aspects of social and environmental value in decision-making and monitor whether delivered interventions provide the benefits expected in their planning,*" echoed in the SPS duty to provide value to customers and wider society.

²² Anglian Water estimate 2024 using sector APR asset data

²³ Ofwat PR24 DD Expenditure Allowances page 34

Ideally companies should be incentivised to replace those lengths that mitigate the most risk for the least cost. This is already achieved to some extent via ODIs that place financial incentives on key risks that can occur after mains failures such as supply interruptions and via the ODI for mains renewals. We therefore suggest that until activity levels are revealed by future annual reporting, the PCD non-delivery penalty rate for mains renewal is reduced within base to be in line with the penalty rate for supply interruptions. For more information see chapter 9 Price Control Deliverables.

5.4 Our asks of Ofwat

The level of concern across the industry and wider stakeholders is clear. The consequences of failing to address these concerns are material, and the action required to move to a more sustainable level of asset replacement is substantial. We urge Ofwat to recognise and act on this need now, as other regulators have. There are opportunities to take meaningful steps towards that aim in AMP8, but only if the Final Determinations move considerably from the Draft Determinations.

We therefore ask Ofwat to:

- Explicitly recognise, as WICS has done in Scotland, that future overall asset replacement needs to be significantly higher than in the past.
- Continue to build on the AMMA and the work on Operational Resilience:
- To place weight on Asset Management Maturity levels in assessing funding requests to address asset health needs, thereby incentivising companies to invest in developing good practice in line with the SPS duty to challenge companies to understand the health of their assets.
- To review again the risk of a maintenance trough suppressing industry levels of capital maintenance, and evaluate policy reform options that could be adopted ahead of PR29, as highlighted by the paper commissioned by WaterUK on Infrastructure Health.
- To amend the mains renewal PCD to reflect an implicit allowance of 0.2% per annum within base.
- Recognise that the resilience uplift allowed for in DDs is far less than requested in detailed enhancement cases by companies and consider again if it is prudent to continue to push needed investment, particularly with respect to climate change, onto future customers.

In making these changes we believe Ofwat will be able to more strongly evidence the discharging of the SPS duty relating to asset health and operational resilience.

5.4.1 Opportunities to bring forward reform for PR24

The recent industry work on [Understanding infrastructure health in the water sector](#) referenced above set out potential policy packages that could be adopted for PR29. A short follow-up to this work has been commissioned by Water UK to understand which, if any, of these proposals could be adopted at PR24.

Clearly there is a limit to what can be achieved, and the proposals are intended to be implemented as a package. Most require wider reform than is possible at this stage in the price review. However, some elements could be implemented for the benefit of the sector.

We believe that where companies have evidenced their competence and need, Ofwat should consider making a broader uplift to base allowances, with flexibility for companies to deliver against the asset classes they perceive to be most in need of additional investment on a use-it-or lose it basis, such that additional investment cannot be underspent for the benefit of investors.

We would welcome the opportunity to work further with Ofwat on such a proposal.

6 Driving cost efficiency- Base

Our base costs are efficient

We used Ofwat's model outputs to challenge our own costs, in producing our PR24 Business Plan. We were therefore pleased to see that Ofwat assessed our base costs as efficient (after removing energy), although we were disappointed (and puzzled) that Ofwat could then assess our ambition on base costs as "poor".

Ofwat disallowed all our CACs but we welcome the funding it provided via the cost models for large Water Recycling Centres and phosphorus removal. We also welcome the funding relating to smart meter penetration, as well as the use of Average Pumping Head in some water models.

The Draft Determination expectations of stretch on base expenditure are unrealistic

However, overall the DD does not provide a base allowance sufficient for the stretching goals Ofwat expects. We assess about £650 million of pressure on base costs, plus around £300 million more that will not be recovered until AMP9 true-ups. Ofwat:

- Unduly rejected items relating to material drivers of base costs, notably leakage (£68 million), contradicting the CMA approach, and boundary boxes (£138 million), which Ofwat incorrectly conflated with smart meters.
- Made an error in the way the proposed energy adjustment is calculated, leaving circa £175 million of costs unfunded until AMP9.
- Set mains renewal expectations from base at a level far in excess of that being delivered from current allowances by the industry (circa £100 million).
- Unduly rejected several enhancement funding requests, judging them to be within base (circa £320 million) - see Enhancement chapter 7.
- Set unreasonable performance improvement expectations from base allowances, notably on pollutions and flooding - see chapter 12 Our commitments to customers.

This stretch comes on top of the unrealistic productivity assumption of 1.0 percent p.a., which we believe is not supported by robust evidence.

If unmitigated, the overall impact of these interventions is to introduce material asymmetry into our ability to manage overall risk and deliver services to customers. The impact of the Draft Determination on overall risk is presented in chapter 14.

Our Representations set out a suite of revised proposals

Our revised base cost expenditure proposals set out in these representations have been developed to balance the level of expenditure required to effectively maintain our assets, manage longer term asset health risks and deliver appropriately stretching service improvements for customers and the environment.

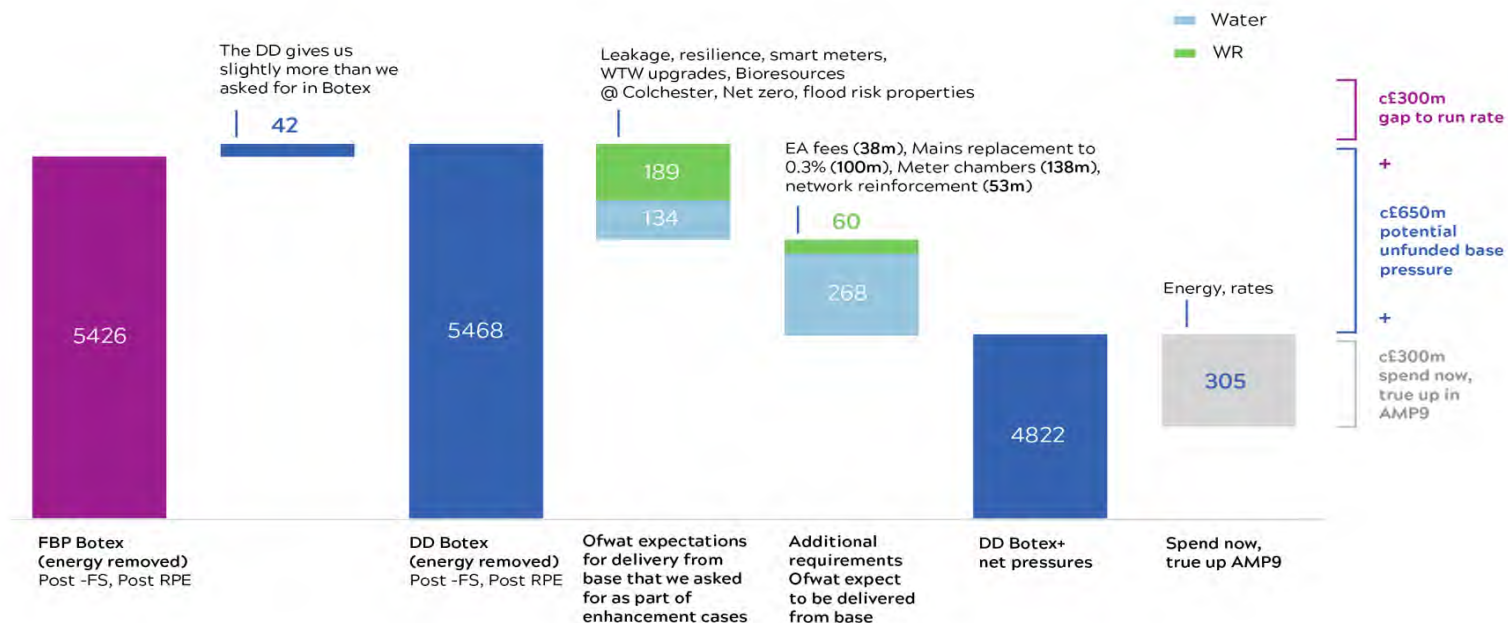
It is important that when preparing the Final Determination Ofwat reviews our proposals as an overall package. For example, in relation to our water service, the activity proposals for main renewals, boundary box replacement and leakage improvement are contingent on the recognition of the necessary expenditure required to deliver these outcomes.

Although there is much we welcome in the DD, Ofwat must now take account of the evidence presented here and in other chapters that our base allowance has been set too low and the expectations for what it can achieve are not realistic.

6.1 The level of stretch on base is unrealistic

The level of funding allowed in the Draft Determination is insufficient to deliver the activity Ofwat assumes. We itemise the sources of this stretch at the start of this chapter, and show them graphically below. This stretch comes on top of the productivity assumption in the DD of 1.0 percent per annum, which we believe is unrealistic and not supported by evidence and is also in addition to the performance improvements across a range of ODIs that are expected to be delivered from base.

Figure 11 Pressures on base



6.1.1 Updates to base costs in our Representations

In the base cost tables we have submitted as part of our Representations we have, unless specified otherwise below, adopted the position proposed by Ofwat in its Draft Determination. We have used the same suite of models used by Ofwat, applied Ofwat's assumptions on frontier shift and real price effects, and followed Ofwat's decisions on unmodelled costs and cost adjustment claims.

While we do not agree with Ofwat's treatment of Business Rates, we have not included any additional costs for upcoming increases in these costs. We expect that Ofwat will apply a consistent approach across the industry, and reflect the

best available information of costs in allowances in FDs, with an appropriate true-up mechanism. Without an up-front allowance, this issue adds to the burden of costs that companies are expected to bear in-period in anticipation of an end-of-period true-up (see our chapter 13 on dealing with uncertainty).

We have presented further evidence in our Representations in the areas set out in the following table that Ofwat must address in order to ensure the balance of service delivery expected from, and funding for, base is realistic and acceptable. Please note, the DWMP alignment case is not included in this table as its costs are included in table CWW3.

Table 1 Base - Representations key areas

Area	Rationale for departure	Value £m
Energy costs	While we agree with the approach Ofwat has taken to address the impact of the energy crisis, the mechanism contains a methodological error which results in clearly incorrect cost estimates. We have added back the shortfall between Ofwat's adjusted allowance and the costs we expect to incur.	175
Boundary box renewal CAC	Ofwat disallowed our Uncertainty Mechanism on the grounds that the costs we were claiming were fully covered by its sector-wide smart metering adjustment. However, this adjustment did not provide for boundary box replacement, so we have re-submitted our cost adjustment claim with greater clarity.	138
Leakage CAC	Ofwat disallowed our cost adjustment claim on various grounds. We disagree with this assessment, which contradicts the CMA's approach in the PR19 re-determination, and have re-submitted our cost adjustment claim.	68
Mains renewal CAC	Ofwat disallowed our climate-vulnerable mains enhancement case on the grounds that climate change is forecast to have a small impact on water main burst levels compared to general asset deterioration, with the impact being subject to significant uncertainty. We provide additional evidence to support increasing our mains renewal activity now, in anticipation of similar requirements for increased activity on a wider asset base in future periods.	198
Modelled costs	The industry has published a new year's data since the draft determination was published. We have re-run the cost models after amending the dataset to (a) include 23/24 cost data and (b) exclude EA permit fees. We have not seen reason to amend any of the independent variable forecasts.	-1
EA permit fees	We have increased our expenditure in the waste water table to reflect new information about our EA permit fees. As stated above, we have treated discharge consent fees as unmodelled costs and excluded them from the modelled datasets to avoid double-counting them.	38

6.2 Base cost modelling

The approach to base cost modelling is the most material factor in determining Ofwat's view of efficient base cost allowances. We provide detailed commentary in ANH_DD_013 on Ofwat's modelling approach; this includes indicative values for each of the adjustments we propose, if made in isolation. To summarise:

1. We strongly support Ofwat's decision to include the 2024 data in the data panel used to derive the Final Determination models. Using the most recent data available for setting the Final Determination follows the approach taken by Ofwat at PR19 and indeed also by the CMA in its 2020 Redetermination.
2. We also support Ofwat's approach to Retail modelling. We believe the Retail models continue to behave well. We propose an adjustment that would address the issue raised by Ofwat that the Retail cost assessment is based in part on companies' proposed bill increases. We also note the concern that the DD leads to some companies having an assessment above their own Business Plan, but consider this to be reasonable and aligned to outcomes we see from modelled allowances in Wholesale.
3. While we wholeheartedly support Ofwat's reintroduction of Average Pumping Head (APH) into some of its Base cost models as a means for controlling for topography, we believe that Ofwat should go further at FD and include both APH for Water Resource Plus and Total APH within its suite of models. We also consider that the Booster Pumping Stations variable should be de-emphasised at FD as it becomes insignificant when the 2024 data is added to the data panel. Including all aspects of Annual Pumping Head would increase our assessment by £78 million, with a further £33 million from de-emphasising the Pumping Stations / length variable.
4. We see no justification for further tightening the catch-up efficiency from Upper Quartile given the absence of any improvement in model quality when the additional year's data has been added.
5. Given the long data panel and the marked exogenous changes in costs since 2020, we believe that Ofwat should either shorten the panel or employ AMP dummies to recognise marked changes in costs over time.
6. We believe that Ofwat should reinstate the models which exclude the use of the urban rainfall variable. We also believe that the Sewage Treatment model using the percentage of load treated in Bands 1-3 should be given weight of no more than 25 percent. Reinstating the models which exclude the urban rainfall variable would increase our assessment by £89 million
7. Ofwat's Bioresources models do not account for sludge growth. As such, the models should be redefined as Botex models and growth should be modelled

separately. The total cost models should be reinstated to improve the quality of the triangulated assessment.

The impact of these proposed revisions are significant however we recognise that these examples are not additive.

These changes, in combination with the other proposals in this chapter, are necessary to ensure an appropriate level of base expenditure is reflected in our Final Determination.

6.3 Energy adjustment

The Draft Determination includes four main steps with regard to setting energy allowances, and subsequent truing-up of those allowances, namely:

1. The Botex cost models from which an implicit allowance for energy can be derived;
2. An uplift to reflect recent energy market conditions not otherwise reflected in historical costs, using the Department for Energy Security and Net Zero (DESNZ) Very Large User index;
3. An RPE adjustment to derive a forecast of energy costs over AMP8, and
4. An ex-post true-up of allowances based on the same DESNZ Very Large User index used in step 2.

Apart from one very material aspect, these steps work well, and we welcome the framework proposed and the uncertainty mechanism. The material flaw relates to the application of step 3 which leaves companies materially underfunded for the AMP, until the uncertainty mechanism corrects it in AMP9. We estimate this will result in about £175 million underfunding for us over AMP8.²⁴

The Draft Determination methodology currently estimates allowances below the historic norms, which is surprising and suggests something inherently wrong. We have included a report produced by Baringa on behalf of Water UK in our submission under reference ANH_DD_066. This includes on page 4 a quote from Jonathan Brearley (CEO of Ofgem), speaking to the House of Commons Energy Security and Net Zero Committee in May 2024 who said that "prices remain significantly higher than they were before the crisis" and looking ahead he cautioned that "prices are expected to remain high and volatile over time".

The Draft Determination estimates allowances that are well below the levels we actually expect to pay for energy during 2025-30, based on the latest market forecasts. If the market rate data is plotted prior to 2022/23, it is clearly evident that market rate forecasts for AMP8 will be well above the historic norms. This is evidenced in CEPA's paper ('Frontier shift, real price effects and the energy crisis

24 This £175 million compares to the -£21 million energy adjustment in the PR24 DD base cost aggregator.xlsx workbook. So, while the level of underfunding is around £175 million, the adjustment relative to our DD assessment is £196 million.

cost adjustment mechanism'), in which the £/MWh forecasts quoted on page 93 are significantly above historic norms. However, the Ofwat methodology implies the DESNZ forecast will fall sharply in 2023/24 and 2024/25 to levels below historic norms. Time has shown this to be incorrect because the 2023/24 DESNZ index actually rose in 2023/24 and the market consensus is that the DESNZ index during AMP8 will be well above the historic norms.

6.3.1 Ofwat's methodology incorrectly applies day-ahead market price trends to DESNZ index levels

The DESNZ index behaves in a different way to the day ahead market price because it is affected by hedging, while the day ahead market price is not. Ofwat's methodology uses both measures, but incorrectly combines them: applying the change in day-ahead market prices to the level of the DESNZ. This is incorrect. Both peaked, then fell, but because the DESNZ includes companies that hedge energy costs, it peaks lower and later, and then declines more slowly than the day ahead market price. If the change in day-ahead prices is to be used, it must be applied to an uplift which reflects the sharper, higher day-ahead price peak. Alternatively, the slower change in the DESNZ could be applied to the lower DESNZ price peak. However, to apply the change in one to the starting point set by the other is invalid.

6.3.2 Impact on the Draft Determination

Under the Draft Determination RPE methodology we see the resulting forecast DESNZ index fall sharply from 2023/24 onwards. However, this is not correct because it reflects the change in the more volatile (not hedged) day-ahead price. Confirming this, the DESNV index in reality, has not fallen sharply in 2023/24, rather it has instead increased.

This incorrect combination of the two measures results in a material underfunding of energy costs in the Draft Determination. This will ultimately be corrected in the ex-post true-up but leaves companies funding the cash flow shortfall during the AMP. We estimate this at £175 million of energy costs we will incur in AMP8 for which we will receive no allowance until AMP9.

6.3.3 Proposed solution

We propose that the RPE adjustment derived from the market rates is replaced or moderated to recognize the fact that the DESNZ index rise in 2022/23 was much lower than the market rate increase in 2022/23 and thus the DESNZ decrease post 2022/23 into AMP8 will be much smaller than the day-ahead market price decrease presently used by Ofwat.

We support Ofwat's proposal that energy allowances are trued up to an index that reflects the prices actually paid by companies but the existence of a true-up should not justify ex ante forecasts which are incompatible with current market evidence. True-ups should not be used to defer recovery of predictable costs, otherwise they become a way in which future customers are forced to pay unduly for present expenditure. However, the uncertainty mechanism does mean that we do not need undue precision in setting the allowance. Both Ofwat and companies can be confident that any modest underfunding or overfunding will be corrected in the true-up.

The Baringa report, attached under reference ANH_DD_066, proposes some options to correct the underfunding. In addition, it suggests that the uncertainty mechanism could become an in-period correction. This would follow the established timeline of the in-period ODI's and in this way the gap between any increase or decrease in energy prices in AMP8 occurring, and the adjustment to customer bills, is minimised. In 13 we include the energy cost true-up in our list of end-of-period reconciliations which we suggest for consideration as in-period reconciliations.

6.4 Cost Adjustment Claims

The purpose of Cost Adjustment Claims (CACs) within the Price Review process is to recognise base costs which are not captured, for whatever reason, by the prevailing base cost assessment process. Within these Representations, we are submitting four CACs, three for Water and one for Water Recycling. These are:

1. Mains replacement ²⁵
2. Boundary Box Replacements ²⁶
3. Drainage and Wastewater Management Plan alignment (DWMP). ²⁷
4. Leakage ²⁸

25 ANH_DD_010

26 ANH_DD_009

27 ANH_DD_012

28 ANH_DD_011

Of these four CACs, two were included in one form or another within our initial Business Plan. These are Leakage and Boundary box Replacements. The other two, Mains Renewal and DWMP alignment, are included in our Representations here as a result of actions taken by Ofwat in its Draft Determinations.

We submitted five CACs with our October 2023 Business Plan. Of those, three were contingent on whether or not Ofwat used particular cost drivers within its base cost models. They were:

1. **Average Pumping Head.** We made clear that if Ofwat used APH within its base cost models, we would withdraw this CAC. As Ofwat has used APH in its DD models, we have accordingly withdrawn this CAC (noting above that the use APH in water models could be extended).
2. **Lack of Large Water Recycling Works.** Again, we made clear that if Ofwat used its Weighted Average Treatment Size (WATS) variable within its base cost models, we would withdraw this CAC. As Ofwat has used WATS in its DD models, we have accordingly withdrawn this CAC.
3. **Energy.** We made clear that we expected Ofwat to come forward with a mechanism to address the underfunding of energy costs in AMP8 and that the CAC was contingent on such a mechanism not appearing. As Ofwat has proposed a mechanism, we have withdrawn this CAC (noting above the error in the way the proposed mechanism has been calibrated).

Of the remaining two:

1. Ofwat refused our Leakage CAC on various grounds. We have re-submitted the claim, with additional supporting modelling evidence
2. Ofwat has made an allowance for the additional opex associated with the AMP7 phosphate removal programme. We have thus withdrawn this CAC.

Having included a CAC for Boundary Box Replacements in our June 2023 submission, within our Business Plan we proposed an Uncertainty Mechanism (UM) to address the same issue. We made it clear that if the UM were rejected, which it was, then we would restore the CAC, which we have done.

We also include two new cost adjustment claims, for mains replacement and DWMP costs, following Draft Determination decisions on enhancement proposals.

The scale of the CACs are summarised in the following table, with details set out below:

Table 2 Summary of Cost Adjustment Claims

Cost adjustment claim	£m in 22/23 PB
Mains replacement	198

Cost adjustment claim	£m in 22/23 PB
Boundary box replacement	138
DWMP alignment	78
Leakage	68

6.4.1 Mains replacement Cost Adjustment Claim

In our Business Plan we proposed an enhancement case to address the growing risk of Climate Vulnerable Mains in our region. In its Draft Determination, Ofwat has disallowed this enhancement case on the basis that the increase in mains bursts predicted is relatively small (an additional 200-300 bursts per year) compared to the increases expected from baseline deterioration.

In isolation, 200-300 bursts per year may appear relatively small. However, this increase is a forecast *average* expected impact, and the key risk is related to larger impacts in years when particular climactic conditions are met. These conditions do not occur every year, so the average over time appears smaller than the acute impact in the year in which they do occur. The frequency with which these conditions occur is predicted to increase due to climate change. Given the scale of our asset base, to address the perceived risk, we will need to undertake a multi-AMP programme of work, without which the impact of these additional bursts will become unmanageable by 2050. These arguments were set out in detail, and backed by independent academic verification, in our Business Plan.

We address this further in our chapter 4. A focus on the long term. We also note the wider approach undertaken by Ofwat with respect to mains renewal more generally and to the treatment of various proposals in both base adjustments and enhancement from the industry to deliver additional mains renewal beyond what would be possible within base allowances. Given this, we have reconsidered our approach in our Representations.

There is clear evidence of a need for a forward-looking shift in the scale of asset health driven activity. Using backward-looking approaches results in a lower than sustainable level of renewal. The effects of this have to date largely been mitigated through the adoption of more cost-effective operational interventions, such as pressure management. This approach was affordable within base allowances, and effective in the shorter term to deliver performance improvement and capable of extending asset lives. However, the impact of such interventions is limited and benefits cannot be expected to be sustained over the longer term.

Our Asset System Resilience Appraisal ²⁹ submitted with our Business Plan clearly identified the need for asset renewals to increase in future AMPs, but concluded this could be avoided in AMP8 because of the continued benefits of the operational interventions currently being utilised.

Our reluctance to seek significant increases in activity thus far has been influenced by Ofwat's expectations and significant incentives over multiple price reviews to limit increases in capital maintenance until they become absolutely necessary. We are keen to begin shifting activity and expenditure levels towards a more sustainable level to meet future challenges such as those associated with mitigating the impacts of climate change on an aging asset base. It is important this activity is effectively phased in anticipation of similar requirements for increased activity across the wider asset base in future periods.

We have therefore included a new CAC for mains renewal generally, which is consistent with the activity levels proposed in our original enhancement case for Climate Vulnerable Mains. If accepted, this would allow us to balance the risks of asset deterioration and failure both due to condition and climactic impacts. In choosing to pursue an enhancement case for our original Business Plan we were mindful of the limitations of CACs for future impacts on cost, however we recognise in our Representations this is Ofwat's preferred approach.

In assessing the implicit allowance for mains renewal for our CAC, we disagree with Ofwat's assessment in its Draft Determination that companies have been funded to deliver 0.3 percent per annum. Funding has been allowed at the Upper Quartile (UQ) of efficient companies, and the arithmetic mean of renewal rates across these UQ companies is only 0.2 percent per annum. We consider this UQ benchmark to be the best method of assessment as it avoids the risk that funding for efficient costs is disconnected from the level of activity undertaken by those efficient companies. The implicit allowance, and PCD for mains renewal from base allowance should therefore be 0.2 percent (which acknowledges a required increase from our Business Plan assumption of 0.13 percent per annum from base allowances, or about £40 million of base pressure we have retained in our Representations).

Full details of this CAC and the level of mains renewal that should be expected from base allowances are included in ANH_DD_010 Mains renewal Cost adjustment claim.

29 ANH38 as submitted October 2023

30 Expenditure allowances, Ofwat, page 37

31 Ofwat response to Anglian Water query OFW-IBQ-ANH-030

6.4.2 Boundary box replacement Cost Adjustment Claim

Summary

We estimate we need to replace 239,331 boundary boxes in AMP8. The potential cost of this activity was not included in our plan, instead we submitted an Uncertainty Mechanism, which Ofwat rejected in the Draft Determination because it had included an allowance to all companies for smart metering. We disagree with this assessment, as set out below.

As an early pioneer of water metering, Anglian is the first company to observe widespread age-related failures of the chambers ('boundary boxes') which house water meters. By 2000, we had reached a meter penetration rate of 42%. This compared with a rate of the next highest company of 23% and an overall industry average (excluding Anglian) of 14%. It is evident that other companies will experience these costs in due course but as they have not incurred them to date, the cost exposure we expect to incur in AMP8 is not reflected in the historic dataset and associated allowances derived from the base cost models. In our business plan we proposed an uncertainty mechanism to cover the cost of the 239,331 boundary box replacements we forecast to make in AMP8.

In its Draft Determination, Ofwat refused the claim for an Uncertainty Mechanism. It said "*we have considered this claim as part of the case for a sector wide adjustment, through which we have applied an adjustment to Anglian Water's allowance*".³⁰

Ofwat provided this further guidance in its response to our query OFW-IBQ-ANH-030:

'To help arrive at our view of efficient metering costs, we issued an all-company query that requested a breakdown of metering costs submitted in PR24 business plans. This query also covered the costs related to base activities, including boundary boxes. This data informed our enhancement meter upgrades assessment, and subsequently our view of the efficient unit cost of replacement used in our base sector wide adjustment assessment at draft determinations.

*Based on this, the unit cost of replacements used in our draft determinations includes an allowance for the costs associated with the replacement of boundary boxes. We therefore consider that the company should be able to deliver both its forecast meter replacements and proactive boundary box replacements, where it considers these are needed.*³¹

In its assessment of companies' business plans Ofwat issued a query (OFW-OBQ-ANH-055) to all companies to understand what they had allowed for in the following CW3 water *enhancement* expenditure lines: new meter installations, meter upgrades and meter infrastructure. (We take this to be the query referred to in Ofwat's statement above). In our response we stated that our business case included the costs of 18,289 boundary boxes. However, these boundary boxes were not replacements of existing boxes (which is the subject of this base claim) but new boundary boxes installed as part of first time smart metering of properties (and therefore funded under enhancement). Ofwat's smart meter adjustment, which was based on companies' responses to this query, therefore cannot fund the cost of any boundary box replacements.

We conclude that:

- None of the 239,331 boundary box replacements we expect to make in AMP8 was included in the meter upgrade line of our enhancement plan nor our query response and none have therefore been funded via Ofwat's smart meter adjustment
- The base cost models will not provide for these costs because the costs have not been incurred in the modelled period
- The case for a cost adjustment claim remains valid because we face a significant new maintenance obligation that no company has experienced previously.

In view of the materiality of this AMP8 obligation and our assessment that most of the costs of meeting it have not been recognised in our Draft Determination, we have included the unfunded costs in our revised representation plan and re-submitted our cost adjustment claim.

Full details of this CAC are included in ANH_DD_009 Boundary box cost adjustment claim.

6.4.3 Drainage and Wastewater Management Plan Alignment Cost Adjustment Claim

Ofwat's base models cover base opex and capital maintenance, as well as Network Reinforcement and Sewer flooding for growth and flood risk reduction. We have submitted a claim for increased costs under the reducing flood risk and network reinforcement enhancement lines to bring these areas back in line with our DWMP.

Ofwat's PR24 methodology stated that company business plans should reflect their final DWMP Strategic Planning Framework and that if they do not match, companies should provide compelling evidence to explain why. In our October

submission we sought to explain the lower proposed allowance in AMP8 by how we had reprofiled activity to balance wider affordability and competing pressures for investment.

We no longer believe it will be possible to tolerate the risk in these areas because we have new evidence that suggests property growth and climate change will impact our networks in AMP8, including:

- Government changes to national planning policy to create mandatory housing targets based on housing stock rather than ONS household projections, alongside interventions to speed up the planning system to build more homes faster.
- Our experience over the winter of 2023-24, including the 18 month period between October 2022 and March 2024 being the wettest since records began.
- Changing weather patterns consistent with climate change projections and our modelling assessments within our DWMP.

In response to our improved understanding of risk we have accelerated into AMP8 investment on network reinforcement and sewer flooding that was previously deferred through the LTDS into AMP9. In these areas our plan now matches that in our DWMP in keeping with the Ofwat PR24 methodology.

The Ofwat approach has come some way to addressing growth and climate risks through, for example, a scheme by scheme assessment on water recycling centres and by removing onsite developer costs from the price control. However, there remain material limits to the responsiveness of the botex plus models to reflect property growth and climate on network reinforcement and sewer flooding. Ofwat accepted this in their assessment of the Thames Water cost adjustment claim: *"At PR19, we accepted that the base cost models may not sufficiently remunerate companies operating in high growth areas"*.³²

As these costs will be treated as part of 'botex plus' we have submitted a cost adjustment claim to set out the rationale for their inclusion in our revised plan. Full details of this CAC and are included in ANH_DD_012 DWMP alignment cost adjustment claim.

6.4.4 Leakage Cost Adjustment Claim

In the Draft Determination Ofwat rejected our claim for a cost adjustment to reflect higher costs incurred by companies to maintain frontier leakage performance. In a reversal of its initial position at PR19 and the position taken by the CMA in the PR19 appeals, it concluded that maintaining lower leakage levels

32 PR24-DD-TMS_Cost-adjustment-claims.xlsx (live.com)

does not cost more³³. We strongly refute this assertion and the suggestion that leakage activity in the Anglian region is easier or cheaper than other parts of the country.

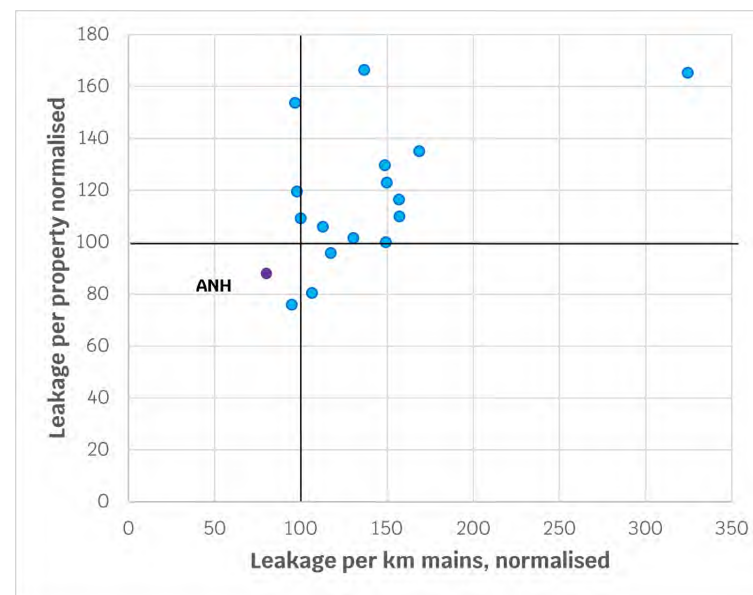
We asked Oxera to develop statistical models using the leakage costs dataset collected by Ofwat over AMP7. The models, which are statistically significant for both in-year leakage performance and the annual change in leakage, provide clear statistical evidence that maintaining a lower level of leakage is associated with increased costs and that improving leakage performance also incurs significant costs.

After netting off the implicit allowance within base cost funding for leakage maintenance, Oxera estimated a net leakage funding requirement for Anglian of between £19 million to £30 million p.a. This is significantly above the combined totex (cost adjustment claim plus enhancement) funding that we put forward in our business plan. Accordingly, we have retained the expenditure for maintaining our current leakage level within our base cost plan and restated our cost adjustment claim as part of our Draft Determination representations.

We submit Oxera's report on leakage funding as ANH_DD_065.

The following graph shows the three-year average industry leakage outcomes in 2023/24. Both leakage per km of mains and leakage per property have been normalised by the Upper Quartile leakage level in the year. Only two companies, Anglian and Bristol, have normalised leakage levels below 100 for both per property and per km.

Figure 12 Leakage performance, 100 = UQ in 2024



In the Draft Determination, Ofwat gave as one of its reasons for disallowing our base leakage claim that our performance was unexceptional. Given our continued frontier performance, this appears to refer to our having not met Ofwat's across the board challenge of a 15 percent reduction in leakage across AMP7. Given the increasing marginal cost of leakage reduction and our frontier position, this was a highly challenging target in terms of deliverability as it represents levels of leakage as yet unseen in the industry.

A more nuanced challenge was effectively set by the CMA.³⁴ It gave us an allowance of £42.6 million in 2017/18 Price Base (£50.3 million in 2022/23 Price Base) to reflect the higher costs we faced to maintain our frontier leakage position. This was based on a challenge to exceed the Upper Quartile (UQ) level of leakage across AMP8 by an average of 18.7 percent. This figure was the mid-point between the extent to which we exceeded UQ leakage in the final year of AMP6 (15.7 percent), and the

33 Ofwat Base cost adjustment feeder model for Anglian Water, ANH_CAC4 tab, cell D26

34 Para 8.78 Final Determination 17 March 2021. https://assets.publishing.service.gov.uk/media/60702370e90e076f5589bb8f/Final_Report_---_web_version_-_CMA.pdf

forecast outperformance for the final year (21.7 percent), based on the stretch in Ofwat's relative leakage PC for AMP7. In the following table, we set out our progress towards the target set.³⁵

Table 3 Anglian leakage performance vs UQ leakage

Year	Anglian leakage performance vs UQ leakage
2019/20	15.7%
2020/21	16.8%
2021/22	17.0%
2022/23	21.0%
2023/24	21.4%
AMP7 Average	19.0%

As can be seen, we have met the target by the end of year 4. Over the first four years of the AMP, we are averaging 19.0 percent beyond the UQ, by comparison to the forecast of 18.7 percent across the whole AMP.

Maintaining this frontier position requires Ofwat to reflect the costs of doing so.

The table above shows we are meeting the CMA's challenge. The £42.6million we were awarded to maintain our frontier leakage position compares to our overall forecast base leakage spend of £227.5 million (both costs in 2017/18 Price Base). The following table sets out what we have actually spent in order to deliver the continued frontier performance:

Table 4 Anglian's actual leakage spend

AMP7 base leakage spend	£ million, 2022/23 PB
2020/21	84.2
2021/22	75.3
2022-23	86.0
2023/24	68.6
AMP7 to date	314.0
Forecast total AMP7 base leakage spend	268.6

This demonstrates that our expenditure in delivering this level of performance has exceeded previous AMP7 forecast and the allowance for maintaining frontier allowed by the CMA.

6.5 Enhancement identified as base

In its assessment of our enhancement cases in our Business Plan, Ofwat has identified a number of areas that Ofwat classified as base expenditure. This places significant additional pressure on our planned base allowances.

In our enhancement chapter 7 we set out where we have reflected these changes, and where we are making representations that these costs should be treated as enhancement, along with further evidence to support this.

We are making representations in the following areas:

- Leakage - £35 million
- Smart meters - £28 million
- Bioresources Colchester - £85 million
- Net zero (excluding HGVs) - £34 million.

These representations together remove around £182 million of additional pressure on base.

6.6 Opex / capex allocation

Ofwat provides a short commentary on how they have split totex allowances into opex/capex in section 4.5 Expenditure-allowances-to-upload.

³⁵ The CMA did not spell out explicitly how it had calculated the 15.7 percent figure. We recreated it by: i) calculating the three year geometric means for per property and per km leakage; ii) calculating the Upper Quartile (UQ) for each measure; iii) rebasing each measure with UQ = 100; iv) adding the two rebased measures together; v) calculating the UQ of the concatenated list; and iv) calculating our position relative to the concatenated UQ

Ofwat proposes to use the company requested ratio of opex to capex to infer the capex and opex splits for the totex allowance, and to use that in their financial models. This could lead to a similar misallocation as was the case at PR19 in relation to growth expenditure.

The risk may materialise where shallow or deep dive cost assessment approaches disallow costs that are specifically capex or opex, and then use the original ratio to split the remaining allowance. An example of this would be seasonal dosing of orthophosphoric acid set out within our lead pipe strategy. By disallowing an item that is 100 percent opex, the allowance therefore has a higher proportion of capex remaining.

Opex and capex are recovered over different timescales where opex is generally recovered through pay as you go (PAYG) in the same period. This misallocation means that there will be less revenue in AMP8 than would result from a natural PAYG rate.

We recommend that Ofwat amends its shallow and deep dive process to address this risk.

6.7 EA Permit fees

In January 2024 the EA consulted on changes to its permitting and regulatory activity for water quality activities alongside the Water Industry Transformation Programme. The EA said these changes were to support the industry to implement good practice and allow the Environment Agency to act on pollution and non-compliance.

The charges proposals for water discharges (including groundwater activities) were set out in a consultation on 29 January 2024 - i.e. since we submitted our business plan - and the new charging scheme came into force on 1 June 2024.

In its conclusions to the consultation the EA said *"the proposed increase was not budgeted for in water company AMP7 business plans and companies would likely request that Ofwat includes the increased costs in its 2024 price review determinations for April 2025 to April 2030"*. In light of the higher charges that have been introduced since our October 2023 business plan and which will apply for the whole of AMP8 we are now making that request.

The table below shows:

- The average annual expenditure we have made on permit fees over the years that are used for assessing our wholesale waste water costs (the 'modelled period');
- The estimate we included in our October 2023 business plan of the charges we will incur for permit fees over the 2025-30 period;

- Our new estimate of the charges we will incur for permit fees over the 2025-30 period following the charges increase;
- The difference between our new estimate and the estimate we included in our business plan;
- The difference between our new estimate and the average expenditure over the modelled period.

These increases are significant but will not be reflected in the base allowances from Ofwat's models. Our proposed solution for dealing with these costs, which were not included in our original Business Plan, is that Ofwat should move these costs from within their models to be an additional unmodelled cost.

It should also be noted that as a result of new sites identified by the EA requiring tight consents and the associated further enhancement expenditure added since our October Business Plan the AMP8 figures shown in the following table are conservative.

The AMP8 expenditure allowance for permit fees in our draft determination has been calculated on the basis of the wholesale cost models. These models use data from the period 2011/12 to 2023/24 and the resulting allowance for permit fees is equivalent to our average permit fee expenditure over this modelled period. The table above shows that our annual actual expenditure on permit fees over AMP8 will be £7.7 million higher than our average over the modelled period, or £38.3 million over the five years of the period. We have reflected this higher level of EA permit fees as part of our expenditure tables.

Table 5 AMP8 EA Permit fees

Year	Total wholesale wastewater - discharge consents £m 22/23	Change in AMP8 over mean modelled expenditure £m 22/23	New estimates post EA charges review £m 22/23	Change in AMP8 over mean modelled expenditure £m 22/23
2011/12 - 2023/24	Mean = 8.5			
AMP8 per annum	8.6	0.1	16.2	7.7
AMP8 total	43.1	0.5	80.9	38.3

Our experience of the 2024 EA consultation confirms that management has very little control over fees. Historically, Environment Agency (EA) permit fees were recognised as an unmodelled cost, reflecting a consensus view that the fees were largely outside management control, but at PR24 permit fees were treated as modelled costs and included within the cost models.

The solution we propose to this issue is to restore EA permit fees to unmodelled costs for Final Determination and, following appropriate scrutiny checks, allow them as pass-through items. The charges scheme which the EA published following its consultation gives a high degree of certainty about the fees we will pay in AMP8.

6.8 Frontier Shift

We are disappointed that Ofwat has chosen to apply a frontier shift estimate of 1 percent pa despite -

- The consensus of the majority of companies that a reasonable forecast is well below 1 percent pa (even in the context of a business plan ambition assessment which incentivised companies to maximise their forecasts);
- The high quality evidence presented in reports produced by Economic Insight, supported by the leading UK academics in the field of productivity; and
- The analysis of numerous independent bodies about levels of productivity in the UK economy.

To summarise our main points:

- We are concerned about the weight applied to the productivity growth rate applied to chemicals in CEPA's analysis;
- We are concerned about the reliance on other regulators' decisions;
- We are concerned that water is deemed to be completely immune from the factors which have affected the rest of the UK economy;
- We are surprised that OBR forecasts of higher future productivity are still being relied on for setting the frontier shift rate;
- Ofwat's revised view of Value Added (VA) measures of productivity is not justified;
- There is an inconsistency between Ofwat's estimate of Frontier shift and its estimate of the real price effect for labour.

We set out our full assessment of frontier shift in the supporting annex ANH_DD_014 'Comments on Frontier Shift and Real Price Effects'.

6.8.1 Economic Insight report on Ofwat's Draft Determination decision on frontier shift

With other companies, we asked Economic Insight³⁶ to review Ofwat's Draft Determination decision on frontier shift and the consultants' reports that informed their decision. Rather than challenge every detail of analysis that Ofwat has published, we asked Economic Insight to test the intuition of their conclusion against independent observable evidence. The overall findings of Economic Insight's work are set out below:

When one focuses on the core intuition, and appraises the evidence in a balanced way, it remains the case that frontier shift for the water industry at PR24 should be set at a substantially lower level than currently proposed by Ofwat (i.e. should be in line with our previous reports). This is because:

- we would expect frontier shift to be higher at times of high productivity, and lower at times of low productivity*
- data shows that over PR14 and PR19, the water industry delivered low productivity, in-line with the low and flat productivity performance of the UK; and*
- the water industry is not 'high-tech'.*

The additional evidence set out in this report provides no basis for us to revise our recommended (focused) range for frontier shift at PR24 of 0.3 percent-0.7 percent pa. A frontier shift challenge of 1.0 percent pa assumes the water sector will outperform anything that the UK water industry (including unregulated firms) has been able to achieve at any point in the last 20 years by more than an entire percentage point.

36 ANH_DD_055 The importance of a balance approach to frontier shift, Economic Insight, August 2024

6.8.2 In our revised data tables, we have used the same RPE values that Ofwat assumed in its Draft Determinations. However, Ofwat should use the evidence we have presented in our representations to inform the Frontier Shift assumption for Final Determination.

6.9 Real Price Effects (RPEs)

6.9.1 In our revised data tables, we have used the same RPE values that Ofwat assumed in its Draft Determinations. In this, we are following the same approach as we have with Frontier Shift.

6.9.2 Labour RPEs

The labour RPEs provided to Ofwat by CEPA are very definitely at the bottom end of market expectations. The following analysis illustrates this, based on a review of market forecasts published by HM Treasury in May 2024. The market data can be found on Table M6, page 20 of this report.

Table 6 Range of forecasts for labour RPEs

Real annual percentage change ¹	2024	2025	2026	2027	2028
OBR	1.6	0.1	0.0	0.3	0.6
Independent analysts: High	3.9	2.3	1.9	2.2	2.5
Independent analysts: Low	1.0	0.1	0.4	0.7	0.7
Independent analysts: Average	2.4	1.1	1.0	1.1	1.1
Ofwat: Real (financial year)	1.48	0.30	0.29	0.59	0.67

¹ Converted from nominal using Ofwat's CPIH expectations

The geometric mean of Ofwat's labour RPEs is 0.8 percent. The well-established link between productivity improvements and wage increases suggests a mismatch between this and Ofwat's proposed 1 percent pa productivity gain. The mean of the OBR's RPE is 0.6 percent pa, which broadly matches its expectation for productivity growth.

6.9.3 Energy RPE

In line with Ofwat's approach to addressing energy costs within the Draft Determination, our comments on Ofwat's proposed energy RPEs are included in the section on the energy modelled cost adjustment above.

6.9.4 Machinery Plant and Equipment (MPE) RPE

We support Ofwat's proposal for an ex-post true-up for the costs of materials, plant and equipment used in our enhancement programme but disagree with the suggestions that the new infrastructure output price index should be used for this purpose. We set out our thoughts on this in ANH_DD_014 'Comments on Frontier Shift and Real Price Effects'.

7 Driving cost efficiency - Enhancement

Summary of our Representations

- Cost efficiency is a key focus for Anglian in PR24 and we broadly welcome Ofwat's assessment of enhancement costs. We have retained our overall approach in our response to the Draft Determination and updated business plan, building Ofwat's cost models into our “double-lock” approach.
- That said, Ofwat disallowed a significant proportion of our enhancement costs, including on the assumption they have already been funded or that they can be funded through base costs. The cumulative effect of this is to place undue pressure on base costs, leaving very little for capital maintenance; in turn compromising long term resilience and storing up problems for future generations.
- Therefore, while we have endeavoured to accept Ofwat's challenges where possible, we focus our Representations below on those areas which are important to rectify before the Final Determinations.
- We have also updated our business plan to reflect our updated view of efficient costs given new statutory drivers and the availability of more up to date cost information. These factors result in a material increase (£480 million) in our efficient costs versus our business plan, further increasing the pressure on base should these costs fail to be reflected at Final Determination
- We remain of the view that our climate resilience investments were the right priorities for our region, but have reflected Ofwat's approach, and proposed a set of schemes that we consider eligible for Ofwat's climate resilience enhancement uplift.
- Finally, we request that Ofwat adjusts its shallow-dive efficiency challenge and removes the WINEP cost cap in light of our Draft Determination Representations and updated business plan.
- In total, our Draft Determination Representations and updated plan result in PR24 enhancement totex costs of £4,840 million.

7.1 Our proposed enhancement investments deliver on our long term ambitions

Our PR24 plan is embedded in the long term and we continue to frame our revised PR24 plan in the context of the long-term needs of the Anglian region. Our PR24 enhancement investments form the first chapter of our LTDS, with investments in AMP8 being driven by our WRMP, DWMP and longer term environmental ambitions.

Our revised plan continues to deliver on the key investments to meet our WRMP, including:

- the development of significant additional water resources (notably Fens reservoir, Lincolnshire reservoir and Bacton desalination)
- maximising the use of existing water resources (particularly through the completion of our two-AMP interconnector programme, allowing us to transfer water from where availability is high to where it is low, and allowing greater flexibility in the location of new water resources in future)
- reducing demand through pushing the frontier of leakage reduction in the industry even further, and the completion of our two-AMP smart metering rollout)

We have updated our plan to align with our DWMP through our DWMP alignment cost adjustment claim, and on enhancement we have set out a significant programme of growth investment at our water recycling centres.

We will deliver our largest ever programme of WINEP investments, reducing the level of nutrients entering our regions rivers, and reducing the spill frequency of our most harmful storm overflows.

We will also deliver significant net zero investments, with significant investments to reduce process emissions at our sites.

Our revised plan continues to align with our four Strategic Direction Statement 2050 ambitions. As part of our revised enhancement plan, we have set out the detail of our representations in four supporting documents:

1. ANH_DD_018: Part 1 Resilient to the risk of drought and flood
2. ANH_DD_019: Part 2 Work with others to achieve significant improvements in ecological quality of catchments
3. ANH020: Part 3 A carbon neutral business
4. ANH_DD_021: Part 4 Enabling sustainable economic and housing growth

Our investments will help us achieve our four ambitions of:

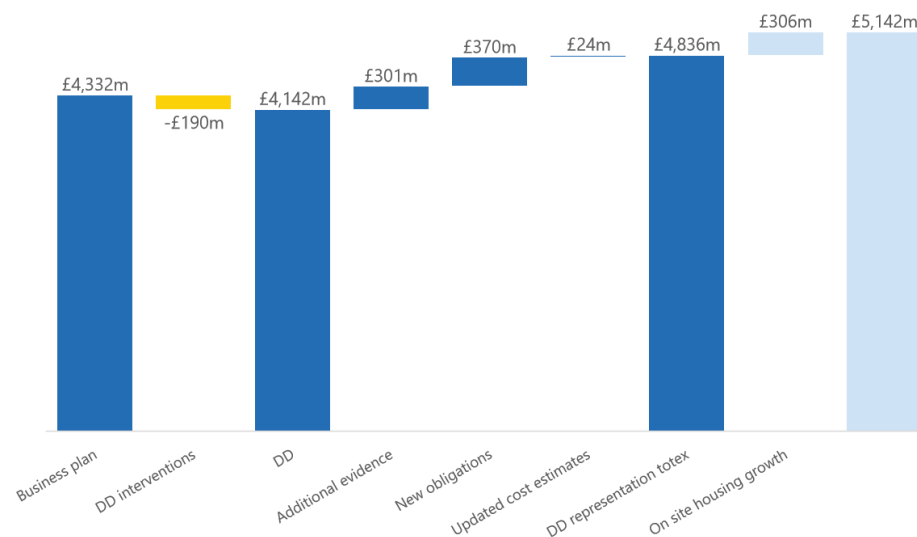


We have updated our enhancement totex as part of our Draft Determination Representations. Across our enhancement investments, we have started with an assumption that we will accept the totex in Ofwat's Draft Determination. We have only deviated from the Draft Determination allowance where there is a clear reason/ reasons to do so. These have been where we have:

- New regulatory obligations which require additional totex
- Additional information on the efficient costs for delivering enhancement investments
- Additional evidence to support a cost allowance which differs from that in the DD.

The scale of each of these is shown in the waterfall chart below.

Figure 13 Adjustments to our enhancement totex from business plan to DD Representations



7.1.1 Enhancement cost efficiency

Our PR24 plan includes a significant increase in the scale of enhancement investments compared to AMP7. The scale of this investment has been driven by requirements from our regulators (notably the Water Industry National Environment Programme (WINEP), the Water Resources Management Plan (WRMP). This includes the expansion of our supply interconnector programme, the completion of our two-AMP smart meter rollout, beginning the development of two new reservoirs, and improvements to river water quality through significant investment to reduce the number of high impact storm overflow events and reduce the concentration of nutrients such as phosphorus in recycled water effluent.

Cost efficiency remains key to our plan. The significant increase in enhancement investment requirements at PR24 makes it all the more important that we ensure that the investments in our plan are cost efficient.

We have implemented our cost efficiency “double-lock” across our enhancement investments. This has meant drawing on

- The bottom-up benchmarking of costs at an individual asset level and our extensive costs model library, and
- The best available top-down external cost benchmarks.

Where external cost benchmarks differed from our bottom-up build-up of costs, we have sought to understand why, and changed our costs in response to the external benchmarks where appropriate. This internal challenge removed £485m from our original business plan as set out in chapter 7 of our original business plan (ANH01).

Ofwat recognised our approach to challenging the cost efficiency of our enhancement programme, rating our ambition in this area as "high" in its Quality and Ambition assessment. We continue to apply the double-lock approach to the cost efficiency across our plan and this is reflected in our Draft Determination Representations.

The Draft Determination includes newly available external cost data and benchmarks which we have used to further inform the efficiency of our enhancement costs.

In areas where we support Ofwat's cost modelling approach we have used this to inform our updated totex in our DD Representation. Of particular note are Ofwat's significant modelling updates for nutrient removal, sanitary parameters, storm overflows and growth at Sewage Treatment Works. Ofwat has collected significant additional cost driver data for these schemes at a site-based level enabling it to set appropriate allowances for these schemes taking into account a range of specific factors which drive costs for these investment areas, which could be lost when taking a fully top-down approach to cost assessment. This dataset, and Ofwat's cost modelling approach, provide the richest and most detailed benchmark available for the efficient cost of these investments. Accordingly, informed by this benchmark, and additional obligations and cost information for these investments,³⁷ we have aligned our costs to Ofwat's modelled allowances in these areas.

The below tables summarises our response to the use of cost models in Ofwat's Draft Determination:

Table 7 Overall Enhancement Representations approach

We have aligned our costs with Ofwat's Draft Determination for the following models	Costs unchanged because minimal difference with Ofwat models:	We have issues with Ofwat's modelling approach and we have not aligned with modelling:
P-removal	Lead pipe replacements	Interconnectors (Some model errors, and additional data should be taken into account)
Sanitary Parameters	First time sewerage	Chemical removal (model inappropriately reflects economies of scale)
Growth at STWs	Demand-side (water efficiency)	Metering (Concerns around the treatment of smart meter infrastructure costs and perceived base costs)
Storm overflows		Supply-side -(some oversimplification of unit costs)
Continuous River Water Quality Monitoring		
Supply side - treatment schemes		

7.1.2 Enhancement cost modelling

As part of these Representations, we have provided our view on Ofwat's enhancement cost models, responding to the cost modelling consultation questions. These are provided in ANH_DD_058 Enhancement cost modelling responses.

7.2 Base cost pressures

Ofwat disallowed a significant portion of our enhancement totex costs at Draft Determination on the apparent assumption that they had already been funded, mostly through base cost allowances.

We recognise that an important part of Ofwat's cost assessment is assessing whether there is a need for a specific enhancement investment and ensuring that customers do not pay twice for the same investment. We agree that this is

³⁷ For example, as highlighted for example in our letter to Ofwat of May 2024, highlighting an identified £120 million cost pressure on P-removal

important and therefore, as part of our business plan development, we tested how each of our enhancement investments interacted with base allowances and historical enhancement requirements.

Ofwat's Draft Determination also assesses that over £500 million of costs in our PR24 enhancement plan should be delivered from base. The table below sets out the most significant areas of challenge (>£10 million).

Table 8 Summary of significant areas of challenge to base in Ofwat's DD

Enhancement investment area	Disallowed costs in Draft Determination (£m)	Reason for disallowed costs
Climate vulnerability	198	Base expenditure is for companies to deliver resilient services on a day-to-day basis. Therefore, it is the company's duty to manage this risk, including managing issues related to climate vulnerable mains.
Bioresources treatment capacity	85	A portion of the spend within this scheme is allocated to the Sludge Growth cost line, and it is not clear why this portion is not sufficient to manage sludge growth and deliver the required capacity
Net zero	70	Gas-to-grid and HGV electrification should continue to be funded by Base expenditure. Methane capture creates commercial opportunity. Industrial Emissions Directive methane requirement. Some Nitrous oxide investments should be funded by Base expenditure
Single point of failure and water treatment works resilience	30	Our base expenditure is for companies to deliver resilient services on a day-to-day basis. Therefore, it is the company's duty to manage this risk, including managing issues related to single points of failure
Nutrient removal	30	Schemes considered to have been funded at PR19
Smart meters	28	Base allocation based on Ofwat's view of enhancement unit costs

38 ANH_DD_010

Enhancement investment area	Disallowed costs in Draft Determination (£m)	Reason for disallowed costs
Increasing supply from WTWs	24	Some base activity concerns, applied 20% reduction to costs
Leakage	17	To ensure that all leakage reduction, beyond that set out in the 2019 price review, is funded and to ensure any under-delivery from the 2019 price review is not funded again

Cumulatively, the removal of these costs adds significant additional capital pressure on base allowances, and we disagree with Ofwat's view that there is sufficient allowance within base costs to fund these investments. Within these Representations we have proposed a way to address these base cost pressures in Ofwat's Final Determination.

Our starting point, wherever possible, has been to reflect Ofwat's conclusions. However, in some key areas, we have retained and updated the costs in our plan (either as enhancement or as a base cost adjustment claim) and provide additional information to evidence our request. The table below summarises our approach for each of the base pressures identified above.

Table 9 Our approach to base pressures

Enhancement investment area	Our Representations approach
Climate vulnerability	We have retained this investment within our plan, providing additional evidence as part of our mains base cost adjustment claim ³⁸
Bioresources treatment capacity	We have calculated the implicit allowance within the Ofwat's DD botex models to be -£4m (a negative allowance). We have retained this investment within our plan including the full costs for growth and resilience as enhancement.
Net zero	We have removed the investment for HGV electrification and gas-to-grid. We have moved methane process emissions investments to IED, and have retained nitrous oxide process

Enhancement investment area	Our Representations approach
	emissions investments as allowed in the DD, plus those which we consider to be equivalent to investments allowed for Severn Trent.
Single point of failure and WTW resilience	We have removed these investment from our plan.
Nutrient removal	We have removed the allowance that was made for these schemes at PR19 and retained the outstanding amount
Smart meters	We have retained these costs as enhancement in our business plan. We had removed the base cost element of the activities Ofwat's have assumed to be fully covered by base costs.
Increasing supply from WTWs	We have removed costs from our plan to align with Ofwat's cost challenge
Leakage	We have retained these costs in our plan. The removal of these costs does not take into account that any underperformance against the PR19 allowance is returned to customers through the clawback mechanism put in place by the CMA.

7.3 New obligations

Since we submitted our business plan in October 2023, new information has emerged (driven by new statutory guidance and updated cost information) on a number of schemes, which impact our the cost requirements. Therefore, we have updated our plan to reflect these new obligations and information.

We have endeavoured to contain some of these increased cost pressures within our DD allowance for a number of investment areas. However, for other areas, we have had to increase the costs in our plan, beyond the allowances set by Ofwat in the DD representation. These include:

- Additional costs for microbiological treatment, driven by alignment to EA standards for UV treatment.³⁹
- Additional PFAS costs to reflect the inclusion of two new schemes driven by DWI statutory drivers.⁴⁰

39 ANH_DD_021 Chapter 6 Microbiological treatment

40 ANH_DD_018 Chapter 11 Addressing raw water deterioration

41 ANH_DD_020 Chapter 3 Sludge

42 See documents ANH_DD_018 to 021

- Additional IED costs relating to increased scope requirements for secondary containment, tank covering for abatement of fugitive emissions and liquor sampling and other sampling requirements.⁴¹

7.4 New cost benchmarking information

Since our business plan submission, we have also had additional cost information which has now been reflected in our revised PR24 costs. We have contained some of these increased cost pressures within our DD allowance wherever possible. For example, the additional costs for P-removal highlighted by letter to Ofwat on 25 May 2024, and additional storm overflow costs that we have identified through greater cost intelligence (e.g. through the delivery of accelerated schemes in AMP7) fall within the modelled allowances in Ofwat's Draft Determination. For other areas, we have increased the costs in our plan, beyond the allowances set by Ofwat in the DD. Most notably, we have additional cost information from the delivery of our AMP7 interconnector programme which have been reflected in our revised PR24 enhancement totex.

These costs, and those for new obligations have been subject to the challenges on cost efficiency and allocation of costs between base and enhancement. We have challenged the costs of these schemes using our double-lock approach. Further details on these changes are set out in our enhancement strategy representations.⁴²

7.5 Resilience

In the Draft Determination, the majority of our proposed resilience enhancement investments were disallowed for an enhancement allowance. The vast majority of our proposed resilience investment related to securing the resilience of our assets to climate-related risks. We set out our overview of Ofwat's approach to climate risks and the impacts of this approach in 'securing resilience now and in the longer term' (see Chapter 4A focus on the long term)

We consider that the investments that we put forward in our plan were the right ones for our region to prioritise, particularly climate vulnerable mains in the case of climate resilience. However, we note that Ofwat has made an allowance for a climate resilience enhancement uplift equal to 0.7 percent of botex, subject to companies making the case this. Therefore as a backstop on our approach to climate resilience, our revised PR24 plan presents a series of investments that we consider meet Ofwat's proposal for this £30 million climate resilience uplift.

7.6 Shallow-dive and WINEP cost challenges

As part of the Draft Determination, Ofwat made two adjustments to enhancement costs which spanned several investments. The shallow-dive cost challenge which was applied to lower materiality enhancement investments, and the WINEP cost challenge which was applied specifically Anglian to cap the enhancement WINEP allowance to 120 percent of requested costs.

7.6.1 Shallow-dive efficiency challenges

Overall, we support Ofwat's approach to applying the shallow-dive efficiency challenge at this price review. Whilst in general, taking a more granular approach to setting allowances is likely to give a more accurate and realistic view of efficient costs, there is clearly merit in applying some proportionality.

We welcome that Ofwat has used simple unit costs in a number of areas to cross check whether a shallow-dive efficiency challenge is appropriate for a series of investments. This helps to avoid inadvertently allowing inefficient companies the majority of their costs.

We consider that applying a shallow-dive percentage based on the efficiency of companies' enhancement costs rather than base costs is a positive change from PR19. Using enhancement cost efficiency rather than base ensures that a more reasonable cost benchmark which reflects the efficiency of similar investments (e.g. similar opex/capex split, cost of new assets rather than maintenance costs) is used for less material investments.

Based on Ofwat's view of the efficiency of our enhancement costs, Ofwat has applied a shallow-dive efficiency challenge of 8 percent and 0 percent for our relevant water and water recycling investments respectively. We have taken Ofwat's Draft Determinations into account updating our enhancement totex in our Representations, as set out above. We request that Ofwat retains its shallow-dive assessment approach, but takes into account the additional evidence, challenge and changes to our plan as submitted in the DD Representation, and adjusts the shallow-dive challenge accordingly.

With this in mind, where Ofwat has applied its shallow-dive cost challenge to our enhancement investments, we have retained our requested costs, and not applied the DD shallow-dive efficiency challenge. Based on the top-down and bottom-up efficiency challenges we have applied across our enhancement programme as part of our efficiency double-lock, these costs remain our best view of efficient costs.

7.6.2 WINEP cost cap

Ofwat has applied the cap on WINEP allowances so as not to allow companies more than 120 percent of their requested costs. Whilst we recognise the need to not give companies allowances excessively beyond what they requested in their business plan, we consider that this cost challenge should be removed in light of the changes we are making to our plan and the points we are raising in our DD Representations.

As set out above, we have adopted Ofwat's view of efficient costs for the major components of our WINEP programme (nutrient removal, sanitary parameters, storm overflows, monitoring) because of these present significant additional datasets and benchmarks against which to set our costs. Alongside this, we have also identified additional cost pressures for these schemes which would have increased our required costs for these schemes regardless of Ofwat's modelled costs. Once these updated costs, based on our latest cost intelligence are taken into account, our modelled allowances will fall below Ofwat's 120% cap. On this basis, we consider that no further cost adjustment should be applied to our WINEP costs.

7.7 Overall enhancement position

Our final PR24 enhancement totex costs across water and water recycling is £4,840 million. This reflects the changes highlighted above and our balanced view of a plan which seeks to address our investment priorities now and in the future, and is affordable and deliverable. The next page summarises the values of our proposed investments:

Figure 14 Our proposed investments and performance improvements



8 Deliverability

Our updated plan remains deliverable

Since our business plan submission, we have adapted our strategies in response to new evidence and statutory obligations. This has led to an increase in scope and costs for statutory programmes, demonstrating our agility and commitment to compliance and delivering the best outcomes for consumers.

We have re-assessed and adjusted our mitigation strategies based on the Updated Plan. Our adjusted strategies have proved to be effective in mitigating previously high-risk categories down to medium or low levels. This reflects our proactive and dynamic approach to risk management, which is aimed at ensuring that our strategies remain relevant and impactful.

Our action plan leverages our existing key supply chain relationships, whereby we have challenged each of our Alliance partners, as to their ability to scale up and their commitments to us, as well as identified new opportunities where we are in control of, and have ability to influence, the materiality of the given risk. We have 86 percent of the work required in AMP8 under a form of Contract or Agreement with our Alliance partners.

We have continued to progress the development and implementation of our mitigation strategies, particularly in terms of strengthening relationships with our Partners, securing further commitments from the supply chain, and developed a strategy for a delivery partner support to provide expertise, resources and experience tailored to the future requirements.

As with the original plan, the deliverability of our updated plan remains subject to the Final Determination. This is a function of both the Final Determination allowances and the overall conditions for delivery and risk management.

8.1 Developments from the business plan submission

The primary drivers of changes to our business plan proposals originate from new evidence and new statutory obligations, resulting in increased scope and costs for statutory programmes.

We have been learning, gathering and analysing additional data to deliver against the Environmental Agency's standards. This has given us information on the scope, solutions and ultimately costs associated with projects. These new cost information, particularly on the interconnector and p-removal schemes to achieve a new threshold of removal required for Nutrient Neutrality, along with the development costs of the Lincolnshire and Fens reservoirs, highlights the complexity of these projects.

New obligations: Key factors driving cost increases during AMP8 due to new obligations include

- UV disinfection, adding £204 million to our Plan;
- PFAS-related activities with a £44 million increase to meet the new obligations alongside the overall plans; and
- Industrial Emissions Directive (IED) requirements, which requires an additional £90 million investment to ensure compliance with the known requirements of the IED.

New evidence: Since the submission of our business plan, our cost estimates have increased, most notably we have additional cost information from the delivery of our AMP7 cost forecast for our interconnector programme, resulting in an £85million increase to our Plan.

The updated plan is still considered to require a step change in terms of scale of activities, not only for the volume of enhancement programmes but also the types of work required.

However, we have been proactively addressing this challenge by securing our Alliance Partners' commitment to complete over 86 percent of the work required in AMP8 under a form of Contract or Agreement.

Our Plan proposed PCDs covering 89 percent of the enhancement totex.

Ofwat's Draft Determination proposes 25 PCDs, with enhancement totex coverage of 75 percent, with 6 PCDs linked to a time incentive regime.

All PCDs require independent third-party assurance as part of our annual reporting, with some PCDs requiring more extensive assurance, due to project complexity and associated risks, which will have impact on the effort required to meet these requirements and our overall deliverability. This includes stage and gated processes for our SRO projects, where the scale of penalties is linked to the development cost allowances. These requirements are resource-intensive and create a material and additional layer of cost in AMP8 compared to previous periods.

While the framework allows flexibility in some areas, such as substitution of solutions, the lack of flexibility in other areas could impact our ability to react to changing circumstances and deliver good outcomes for our customers.

8.2 Overview of assessment methodology and evidence considered

We have completed a risk-based review of the Updated Plan, taking into consideration Ofwat's Draft Determination.

The review follows our methodology introduced as part of the business plan assessment, which comprises of three key components:

- **Pre-mitigated view of risk** - assessment of deliverability based on the assumption that only existing supply chains will be used to deliver the capital programme. The assessment includes a risk assessment, a market review and a review of our existing delivery models.
- **Recommendations and mitigations** - assessment of whether our proposed mitigation strategies and next steps continue to effectively address the high-risks areas of our capital programme.
- **Mitigated Plan deliverability** - assessment of PR24 deliverability taking into account the proposed mitigations and the progress made in implementing our strategies, as outlined in the step above.

8.3 Supplier market landscape review

In the process of submitting our business plan, we completed a thorough review of the supplier market landscape. This assessment of emerging trends informed the development of our strategies to mitigate associated risks. The report considered all of our six alliance frameworks and undertook deep dive analysis on their financial and business vulnerability, capacity, and capabilities.

Since submitting the business plan, we have updated the financial health assessments of our existing Alliance Partners, using the most recent audited accounts. While we observed a slight decline in net profit margins and interest coverage ratios on average in the group, the overall financial health of our partners has remained consistent with the previous year's levels. This brings us confidence that our strategies are well informed and resilient against potential market risks.

8.4 Pre-mitigated view of risk

The pre-mitigated assessment of deliverability is based on current Anglian and Alliance Partners' capabilities and capacity. Key enhancement cost categories were given a RAG status,⁴³ based on the assumption that no mitigation steps will be taken to reduce the potential severity or probability of a risk to delivery occurring.

At the time of the business plan submission, this initial assessment identified strategic solutions, resilience water-only investment, water quality, and river water quality (specifically phosphorus and nitrogen removal, and continuous river water quality monitoring) as high-risk categories.

Following a review of the Draft Determination, the risk associated with phosphorus and nitrogen removal has been downgraded to medium risk. The 48 percent increase in the p-removal allowance enhances the resilience of the schemes against unforeseen challenges, improves our planning and execution capabilities, makes it more attractive to critical suppliers and partners, and provides the means to address specific supply chain risks more effectively. That said, the supply chain risk for nitrate treatment chemicals remains a concern due to limited suppliers and high demand.

In total, 27 percent of the enhancement capital programme are on a pre-mitigated view considered to have potentially high risk in relation to the deliverability and 59 percent potentially medium risk concerning the deliverability of our Updated Plan.

⁴³ RAG in relation to the Updated Plan: Red = the proposed element of the Updated Plan is at risk of failing to meet the deliverability requirements based on an assessment of AWS' capabilities and resource capacity as well as scale of works required; Amber = the proposed element of the plan is deliverable but as a result of some of the risks being outside of our control and are subject to the efforts we are undertaking with the relevant bodies to agree to the proposals we form part of our Updated Plan; and Green = the proposed element of the Updated Plan is expected to be deliverable based on AWS' capabilities and resource capacity as well as the proposed scale of works required in AMP8.

facing the delivery of this scheme are its resource-intensive demands and the absence of MIC compliant membranes suppliers.

- **Resilience (water only):** the scale of the programme, compared to AMP7, and the pressure on the 'climate resilient' material supply chain are major concern. Land access has also proved a significant challenge in AMP7.
- **WRMP (supply side only):** the large and ambitious scale of the programme with the introduction of new technology in an untested market, introduces risks. Monitor suppliers are unlikely to be established at a commercial scale required to meet the needs of our programme. The revised inclusion of Colchester Re-use for in-house delivery further magnifies the scale of works required by our Partners.

8.5 Review of mitigation strategies

Last year, we developed seven key mitigating strategies as part of our business plan submission. These strategies were carefully developed to address risks within our control and those we can materially influence.

Taking into consideration our Updated Plans, we have assessed the applicability of these mitigating strategies and concluded that they continue to remain effective.

We have been successful in progressing these strategies forward, which positions us strongly as we move towards AMP8.

Strategy 1 - Optimise programme plan: Our goal is to identify work peaks, dependencies and capacity constraints to maintain the option to continue to optimise the Updated Plan across the portfolios. This approach maximises the effectiveness of this mitigation and supports the packaging and sequencing of works. It helps manage complexity and allocate resources efficiently.

Strategy 2 - Strengthen relationship-based approach with alliances: By engaging early with Alliance Partners and key supply chain companies, we provide visibility to gain commitment for AMP8. We are reviewing the readiness of Alliance Partners and commercial models to deliver larger-scale programmes and projects ahead

of AMP8, building resilience within the supply chain network to secure further commitment. Currently, we have over 86 percent of the AMP8 enhancement programme committed by our Partners.

Strategy 3 - Enhance delivery governance and management structure: We are refining our governance structures to align with the optimised programme plan. The structure will have defined roles, responsibilities, and streamlined decision-making responsibilities, and streamlined decision-making. This strategy is under continuous development and is expected to be fully in place by AMP8.

Strategy 4 - Increase supply chain resilience: We continue to provide early visibility of the programme to suppliers and Tier 2 to align capabilities, resources, and plans. Monitoring vulnerabilities in the supply chain, developing contingency plans and addressing potential disruptions or delays in the supply chain are ongoing efforts.

Strategy 5 - Strengthen internal capabilities: We are focused on strengthening and increasing our capabilities and developing a strategic and dynamic workforce plan. This includes improving the gender and ethnicity balance of our workforce to better reflect the community we serve.

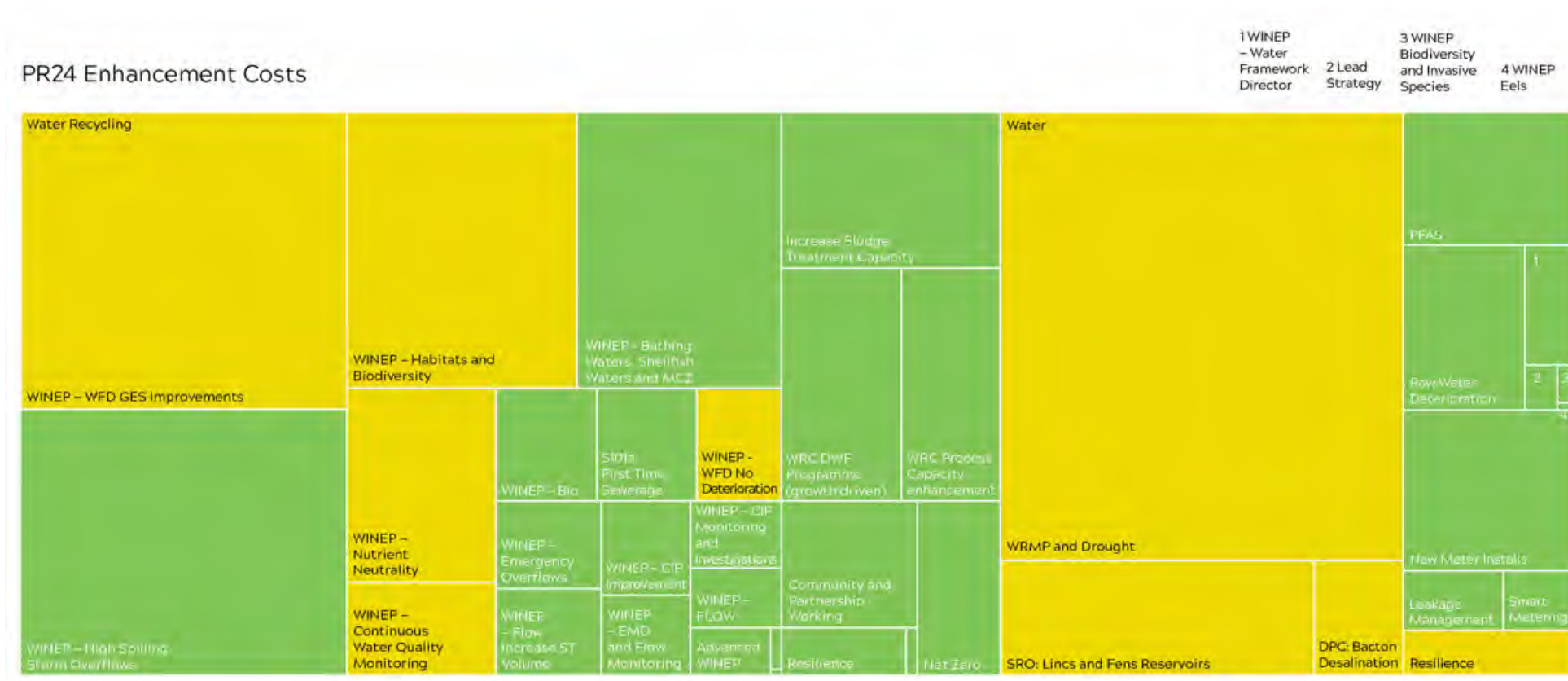
Strategy 6 - Set up new agreements / partnerships / alliances: We are assessing internal capacity and partnering with an external delivery partner bringing expertise, resources, and experience. A PIN notice was issued in April 2024, with the selection of a successful partner expected in the first or second quarter of 2025. This partnership is anticipated to last around 15 years, providing long-term sustained support.

Strategy 7 - Continuously review and manage risks: We are developing a new level of holistic and dynamic view of risk, building on the Updated Plan optimisation to promote a proactive risk management culture. Regular monitoring of risks for early issue identification and prompt resolution is a key component of this strategy.

8.6 Post-mitigation view of risk

After applying the relevant mitigation strategies to the cost categories, we assessed their effectiveness, analysed the residual risk profile, and updated the RAG status accordingly.

Figure 16 Post mitigated view of risk



As a result, all previously high-risk categories have been downgraded to either medium or low, demonstrating the significant impact of our mitigation efforts:

- Lincolnshire and Fens Reservoirs (SROs):** The overall delivery risk for this category can be reduced to a medium level, due to our efforts in expanding in-house capabilities and the process of bringing along a delivery partner. This assumes that the AMP8 funding allowance will be reviewed reflecting our revised development cost estimates in addition to appropriate regulatory mechanisms to manage uncertainty. We are also proposing to put enhanced governance and scrutiny processes in place by establishing a Project Representative body with

independent third-party oversight of spend more akin to major projects and allowing effective cost pass through. In addition, considering the complexity and scale of works around the delivery of the reservoirs, we are rephasing the development phase of the Lincolnshire Reservoir. This change in timelines will allow to decrease the intensity of works and facilitate the transfer of the team from Fens to the Lincolnshire reservoir, allowing us to apply lessons learned and achieve efficiencies. This approach aligns with our preferred option in the WRMP and allow us to manage the delivery risks associated with our SRO projects more effectively.

- **Bacton Desalination (DPC):** our proposed mitigations are expected to reduce the challenges associated with the timing and resourcing requirements. Additionally, we are proactively engaging with suppliers that are closest to obtaining Reg31 certification for MIC. However, regulatory support could further support in addressing this issue in a timely manner, which would result in a positive outcome for the sector.
- **Resilience (water only):** the proposed mitigations in place are expected to reduce key delivery challenges related to the availability of stock and material cost increases. Based on engagement with our existing alliances, we are confident that our Partners have both the capability and capacity to fulfil the works.
- **WRMP (supply side only):** the proposed mitigations strategies can reduce primary risks to delivery around the availability of suppliers and labour constraints. Furthermore, we have updated and reprofiled the Bexwell and Norwich pipelines of our PR24 interconnector programme for a 7-year delivery profile reflecting on our AMP7 experience. We have also reprofiled the Colchester Re-Use scheme to account for the outcomes of the pilot plant. However, given the overall scale of works, the risk level is expected to remain medium.
- **WINEP (bathing and shellfish waters):** we have met with the Environment Agency to confirm that given the new scope of the solutions to meet the updated design standard we cannot complete the schemes by March 2027 and require an amended WINEP obligation date.

Those cost categories with residual amber rating highlight the need for collaborative support from Ofwat, EA, Defra and other third-party stakeholders.

The deliverability of our revised plan is conditional on the Final Determination, which should enable us to retain the ability to manage the diversity of risks. We are confident in the view that our Updated Plan is deliverable, and that our customers are well-protected against potential risks within our control.

8.7 Conclusion

Our proactive approach and strategic planning have provided a strong foundation for the delivery of our AMP8 programme. With supply chain contracts already in place for 86 percent of the AMP8-related works, we are well-positioned to move forward confidently.

Central to our strategy is the early engagement with existing Alliance Partners and supply chain companies. Our aim is to continue being the client of choice for our existing partners.

We have further progressed the implementation of our seven mitigation strategies, effectively reducing the risk levels across the board.

The post-mitigation view of risk is considered to be unchanged from the business plan assessment of the enhancement programme deliverability. All of the initially high-risk categories have been downgraded to medium or low risk.

The green RAG status across various cost categories signals their deliverability within the planned enhancement programme.

9 Price Control Deliverables

Summary of our Representations

We agree with key components of the PCD framework applied in the DD. However, some aspects of the framework would undermine its effectiveness, impose unjustifiable costs and expose companies to significant asymmetric risk. To address these issues, we propose the following adjustments:

- The PCD regime is insufficiently flexible in relation to the adjustment and delivery profile of their enhancement programmes, which risks harming the effectiveness of the regime and harming consumers. We have proposed adjustments to the thresholds for the circumstances in which PCDs can be adjusted to give the necessary flexibility.
- The delivery profiles proposed in the DD are neither appropriate nor practicable (notably for mains renewal, storm overflows and phosphorus removal). We have proposed aligning the delivery profiles with the schedule proposed in our plan (or otherwise state that the penalties for delay should not apply where it is beneficial for customers).
- The overlap in scope between PCDs and the Delayed Delivery Cashflow Mechanism and some ODIs exposes companies to the risk of multiple, potentially duplicate, downward adjustments in revenues for the same underlying issue. We have requested that the Final Determination confirms that this will not occur.
- The proposed PCD regime will entail significant administrative costs for companies reporting and assurance which is not remunerated through companies' base cost allowances. We have recommended that the Final Determination consider such costs and adopt a more proportionate approach to reporting requirements.
- The proposed PCDs also raise specific issues in relation to main renewal, first time sewerage, metering and storm overflows which we address in more detail below. There are also a number of technical points concerning growth at WRC, continuous river quality monitoring, supply interconnectors, water supply schemes (excluding interconnectors) and raw water deterioration as well as taste odour and colour.

Finally, the DD approach to PCDs, and the regulatory shift towards conditional allowances, exposes companies to significant asymmetric risk. This is addressed in the chapter 14 on risk and return.

9.1 Introduction

We recognise the introduction of price control deliverables (PCDs) as part of Ofwat's focus on ensuring delivery with the AMP8 period and the desire to support the legitimacy of the sector's commitment to customers and the environment. We believe that, if designed and implemented appropriately, PCDs can be beneficial for customers by encouraging the timely delivery of activities or benefits reflected in the PR24 investment proposals.

The proposed PCD framework as set out in the Draft Determinations represents a significant improvement relative to the final methodology position. However, significant issues still remain as set out in this section. We are keen to work with Ofwat over the coming months to ensure that any remaining issues are adequately addressed. Most notably, we encourage Ofwat to reflect within its proposals best practice based on the experience of PCDs in the energy sector, where they have been in effective operation since April 2021.

We set out below further information about our concerns with these and other aspects of the proposed PCD framework. We have set out our answers to Ofwat's questions as they pertain to the points raised below. Supporting this chapter is the ANH_DD_016 Price Control Deliverables detailed Commentary.

9.2 Lack of flexibility to account for changes

Flexibility in the PCD framework is critical to ensuring that it provides the necessary protection for customers without unduly limiting the scope for companies to make changes to outputs where such changes are demonstrably in the interests of customers and better reflect changes to external drivers.

We note that Ofwat's proposals allow for some flexibility in the application of non-delivery or delay payments in limited circumstances:

- Where the PCD is "slightly late" but is expected to be delivered in early AMP9, Ofwat may suspend the application of non-delivery payments for a "few months". Delay payments would still apply.
- Where the PCD is no longer required and there are material benefits (i.e. cost savings to customers exceed 1% of totex in the relevant area) to customers from not incurring further expenditure, Ofwat would allow the company to retain 6% of the initial allowance.
- Where the PCD is funded through a delivery mechanism, and the company does not deliver the outputs that are linked with funding that has not been triggered, Ofwat would not apply non-delivery payments.

Other than in these limited circumstances, Ofwat does not propose any flexibility in the application of non-delivery or delay payments. Ofwat said that “*companies should manage any delivery risks around unexpected events over the five-year control period. This includes any movement in regulatory dates for WINEP/NEP schemes*”.⁴⁴

This lack of flexibility means that:

- There could be missed opportunities for beneficial changes to the output being delivered and its delivery timings, with companies being held to account to deliver an output that may no longer be the best option for customers due to external changes, for example changing statutory requirements.
- Companies are exposed to the risk that they incur expenditure that they ultimately cannot recover on a PCD that is not delivered or is delayed due to factors outside of their control which it could not have reasonably anticipated or mitigated. For example, a project could be delayed or materially altered due to land access or planning issues and the company could potentially be liable for PCD non-delivery or delay payments.
- Companies may be on track to deliver more than a few months late, and have committed the majority of allowance but would have to return all of the funding to customers. This would incentivise companies, where there is discretion, to abandon projects early if it appears likely to be delivered more than a few months late - as the company would effectively not be funded for that work.
- Companies are less able to respond quickly to changing requirements from quality regulators, deferring or avoiding committing to any new obligations until the next regulatory period if doing so increases delivery risk associated with existing PCDs. This could, for example, impact our ability to ramp up polyfluoroalkyl substances remediation if desired by the DWI. Another example would be new First Time Sewerage schemes being required, which is relevant as we have a new scheme raised for delivery by March 2029 which is not reflected in our Representation. We think constraining flexibility places significant risk on companies in the face of evolving environmental requirements and believe PCDs, if set up appropriately offer a method of flexing funding new requirements and effectively rebaselining allowances during the period.

Even where Ofwat proposes some flexibility, it constrains the application of that flexibility by:

- Setting a materiality threshold for customer benefits of 1% of relevant totex before Ofwat would consider waiving non-delivery payments if the PCD is no longer required.
- Limiting the amount of allowance that companies may be allowed to retain to 6% where the PCD is no longer required. This means that companies are exposed to substantial unfunded expenditure if it finds that the PCD is no longer required after it has incurred in excess of 6% of allowances.

There may be benefits to customers from cancelling schemes that are no longer required that do not meet the materiality threshold or after the company has incurred costs of more than 6% of allowances. Ofwat’s proposed approach means that companies could be financially penalised for stopping projects in those circumstances.

We strongly support removing the materiality threshold (or lowering it significantly) and removing the cap of 6% of expenditure that can be recovered from customers in the event of cancellation. We accept that companies will need to provide evidence of the rationale for making the decision to cancel the project, evidence that any expenditure incurred was efficient, and evidence that the company took reasonable steps to avoid unnecessary expenditure once the requirement for the scheme fell away.

We would also like to see more flexibility for schemes that can be evidenced to be in delivery and ultimately on track to be delivered but will be more than a few months late. As the scale and complexity of enhancement programmes increases in AMP8, having automatic clawback of allowances for schemes that are delayed into AMP9 could cause unnecessary volatility in customer bills, and regulatory burden for Ofwat and companies, as funding is returned but then potentially re-requested at PR29.

9.2.1 Wider regulatory delivery regimes better reflect flexibility

Ofwat’s proposed approach is inconsistent with regulatory best practice in this area. Taking the example of the GB energy sector:

- Ofgem’s RIIO-2 PCD framework allows companies the flexibility to recover incurred costs up to the allowance associated with the PCD in the case of non-delivery where the company can demonstrate that any costs incurred were “reasonable, necessary, incurred efficiently and not otherwise funded”. This is a pragmatic approach that ensures that companies are able (and encouraged) to take account of, and react to, changing external circumstances when delivering their PCD obligations without arbitrary and unnecessary materiality thresholds or expenditure caps.

44 Ofwat (2024) PR24 Draft determinations: Expenditure allowances, page 175

- Ofgem’s accelerating strategic transmission investment (ASTI) framework includes a provision for companies to make a cost and output adjusting event (COAE) submission to change outputs or allowances if that is driven by an event that is outside the company’s reasonable control and which they could not have economically and efficiently planned a contingency for.
- Ofgem’s timely delivery ODI under its ASTI framework includes the possibility of exemptions from penalties for delays that can be attributed for factors outside the companies’ reasonable control. This means that penalties are genuinely limited to failures that are attributable to actions or omissions by the company.⁴⁵

By adopting an unnecessarily inflexible approach to non-delivery and delay payments, Ofwat risks incentivising poor and inefficient outcomes for customers and the environment. This approach also increases the overall asymmetry of risk exposure for companies as set out further below. We strongly urge Ofwat to reconsider its approach to flexibility and adopt the pragmatic suggestions put forward above.

9.3 Unrealistic output delivery profiles

Ofwat’s proposed PCD time incentive mechanism aims to encourage timely delivery of funded outputs so that customers receive the associated benefits no later than “promised by companies”. Ofwat’s PCD guidance said that it expects deliverables to “reflect the profile of spend and to be spread across the control period”.⁴⁶ While there may be a place for these incentives, what’s really important is that delivery is judged over the entire AMP.

We do not think it is reasonable to expect (without supporting evidence) that the profile of benefits of enhancements would closely track the profile of expenditure, particularly in the early years of the control period - or to set output delivery time incentives simply based on that expectation. While that expectation might be reasonable in some circumstances (e.g. activities that are primarily opex based, or those that are a continuation of historical activity at similar levels), we do not believe those circumstances apply to all PCDs, and certainly not to the ones highlighted below. The profiles set for these PCDs are excessively front-loaded and not consistent with the timing of outputs that can be reasonably expected from the profile of expenditure funded through price control allowances.

Furthermore, Ofwat’s expectation that the output delivery profile should be “spread across the control period”⁴⁷ combined with the lack of flexibility for companies to deviate from the profile within-period could inadvertently lead to poor outcomes (e.g. through inefficient scheduling of works), or penalties for companies for deviations from this profile in circumstances where that is the right and efficient thing to do for customers.

We have particular concerns about the proposed delivery profiles for the following PCDs:

- Mains renewal
- Storm overflows
- Phosphorus removal

For Mains renewals, Ofwat has assumed “a simple, flat profile of renewal activity over the period” and that “companies will deliver their respective renewal rates from year one of the period”. As set out in the Price Control Deliverables Detailed Commentary (ANH_DD_016), this is not a reasonable assumption. In particular, we are unlikely to be able deliver Ofwat’s assumed mains renewal for year one of the period as the time period from commencement of the project to delivery is expected to be 11 months for the simpler projects, and significantly longer than that for more complex projects. We have proposed an alternative delivery profile in our Representations, which we ask that Ofwat adopt in its Final Determinations.

For storm overflows, Ofwat has set its own expectation of the profile that companies should deliver outputs to, including the expectation that companies deliver 5% of AMP8 output by the end of year 1, and 15%, 35% and 65% by end of years 2, 3 and 4 respectively. Ofwat says that its expected delivery profile is based on the profile of forecast expenditure by companies and the delivery profiles proposed by “the most ambitious companies”. Ofwat has adopted a similar approach to the expected delivery profile in relation to the phosphorus removal PCD, albeit the profile is somewhat less front-loaded than the profile for storm overflows which it said is due to the longer lead times for designing and delivering the necessary phosphorus removal upgrades.⁴⁸

These enhancements tend to be delivered through a multi-year programme of activity involving multiple stages of work leading up to the delivery of benefits. Expenditure incurred on early-stage activities like design work, procurement of equipment, contracting of services etc may not result in immediate and tangible benefits (in terms of the PCD metric), with the benefits only observable after commissioning and commencement of operations. Linking the PCD to an annual

⁴⁵ Ofgem (2022) Decision on accelerating strategic transmission investment, paragraph 7.51.

⁴⁶ Ofwat (2023) IN 2305 Further guidance on price control deliverables for PR24, page 11.

⁴⁷ Ofwat (2023) IN 2305 Further guidance on price control deliverables for PR24, page 11

⁴⁸ Ofwat PR24 DD PCD appendix said that it had set a “less stringent requirements for years 1 and 2” due to the “relatively longer lead time required to design and deliver phosphorus removal upgrades compared to constructing storm overflows storage tanks.”

delivery profile that is spread over the control period could potentially mean inefficient scheduling of delivery to meet artificial deadlines, and the loss of opportunities for synergies from grouping schemes together for procurement and delivery.

Moreover, companies do not have certainty on the level of enhancement funding or PCD targets until Final Determinations, so it may take some time to react and prepare for delivery.

While particular delivery schedules may suit the delivery method of some companies in some cases (and be reflected in their proposals) it is unlikely to work for all. One of our seven mitigations to ensure deliverability of our plan is continual optimisation of the investment portfolio. Creating these arbitrary constraints will only undermine our ability to deliver and jeopardises our deliverability assurance statement.

The threat of financial penalties could encourage companies to schedule their enhancement programme delivery in sequential blocks - even when it is more cost efficient across the programme to group early-stage activities together early in the period, with most of the output being “delivered” for reporting purposes in the latter half of the control period.

For the storm overflow and phosphorus removal PCDs, Ofwat should seek to align output delivery profiles upfront in line with the delivery schedule proposed in our business plan which is aligned to regulatory obligation dates.

9.4 Potential overlap between PCDs and the proposed delayed delivery cashflow mechanism

Ofwat is proposing to introduce a delayed delivery cashflow mechanism (DDCM) as part of measures aimed at incentivising companies to “deliver services and enhancement programmes in line with their determinations, and to protect customers from paying for service improvements that are not delivered or where delivery is delayed”.

We have identified a potential overlap between adjustments made under the DDCM and PCD mechanisms that Ofwat must recognise and account for.

Our understanding is that the DDCM would apply in the following circumstances:

- By the end of year 2 of AMP8, the company has spent less than 50% of the cumulative enhancement allowance for years 1 and;
- By the end of year 3 of AMP8, the company has spent less than 65% of the cumulative AMP8 enhancement allowance for years 1, 2 and 3.

In the first case, Ofwat intends to claw back AMP8 revenues (PAYG, RCV run off, and allowed return on RCV) associated with 50% of any underspends against the cumulative enhancement allowance for years 1 and 2. This claw back will be applied as reductions to allowed revenues in years 4 and 5 of AMP8.

In the second case, Ofwat will claw back AMP8 revenues (PAYG, RCV run off, and allowed return on RCV) associated with 50% of any underspends against the cumulative enhancement allowance for years 1, 2 and 3. This claw back will be applied as reductions to allowed revenues in year 5 of AMP8. In doing so, Ofwat said that it will take account of any clawbacks already made in relation to underspends at the end of year 2.

The revenue adjustments will be implemented through the PR29 reconciliation process. Ofwat said that any revenues clawed back under the mechanism will subsequently be allowed through PR29 reconciliation if companies “catch up on their enhancement programme”. It is not clear from the Draft Determinations what would happen if companies do not catch up on their enhancement programme for any reason.

Under the PCD mechanism, if an AMP8 PCD is not delivered, companies are required to make non-delivery payments that return in full the enhancement allowance associated with the non-delivered PCD.

If the DDCM is applied concurrently, companies could potentially face an additional reduction in revenues in years 4 and 5 of AMP8 (and beyond) if there is an underspend against enhancement allowances associated with the non-delivery. Unless the non-delivery PCD payment is taken into account when calculating the extent of any underspends, there is the potential for double-counting of payments to customers. We have not seen any statements in draft determinations on how Ofwat will take account of any PCD payments when adjusting revenues under the DDCM (or vice versa).

Ofwat should ensure that there is no double jeopardy for companies and no double-counting of payments through the concurrent application of the two mechanisms.

9.5 Interactions with ODI payments

Ofwat had previously identified the potential for interactions between ODI payments and PCD payments, and the potential for duplication of payments to customers in the event of non-delivery.

In Draft Determinations, Ofwat proposes to not take account of these interactions when applying PCD non-delivery or delay payments as its analysis suggests that ODIs provide little or no additional protection for customers in relation to funded enhancements (compared to PCDs).

Ofwat's analysis of the extent of protection offered by ODIs is based on data provided by companies through their business plan submissions on the level of benefits provided by enhancement expenditure. Ofwat's analysis considers the median of the protection provided by ODIs as a % of PCD allowances. For most PCDs, this is zero.

However, for a small number of PCDs, the median level of protection from the related ODI is significant. There is a material overlap between the storm overflows performance commitment and the storm overflows PCD. To remove the potential for double penalties, we propose that for areas of material overlap (particularly storm overflows), ODI underperformance payments should be netted off any PCD non-delivery payments.

9.6 Miscalibration of time incentive payments

Ofwat has proposed to use a two-way incentive that applies both outperformance and underperformance payments for the timing of delivery. In relation to the application of the two-way incentive, Ofwat said that it considered two options:

- “Option 1 - company can only face either underperformance or outperformance payments in each year, depending on whether it delivers the target output.
- Option 2 - company can face both underperformance and outperformance payments in each year based on the proportion of the target output the company delivers. If the company delivers 70% of the target output, then it will face outperformance payments for this 70% and underperformance payments for the remaining 30%.”

Ofwat proposes to adopt option 2, which we support. Option 1 as proposed could lead to an undesirable cliff-edge situation where the company would be ineligible for any outperformance payments even if a single unit of the PCD is not delivered on time. If option 1 were to be applied, the two-way mechanism would be biased towards underperformance payments - as the underperformance payment would apply even if a single unit is delayed, whereas the outperformance payment would only apply if every unit of the PCD is delivered on time. Our understanding of the industry's delivery time norms suggests that this option would not create a credible incentive.

In relation to the calibration of the underperformance payment, Ofwat has again considered two options:

- “Option 1 - WACC multiplied by the protected totex. This is equivalent to a time value adjustment.
- Option 2 - WACC plus run-off rate, multiplied by the protected totex. This would be equivalent to the revenue that the company gets every year to deliver the improvement.”

Ofwat has used option 2 for Draft Determinations, but it said that the choice between the two options was finely balanced and that it is seeking views on which option it should use for final determinations. Ofwat said that it is concerned that option 1 provides insufficient incentives for timely delivery. Ofwat believes that option 2 provides a stronger incentive, but recognises that it would mean higher risk to companies.

We strongly support option 1, where the payment rate is calculated as the WACC multiplied by the protected totex, and see no basis for option 2.

Option 2 applies the same treatment to RCV run off and the cost of capital allowance. While repaying the WACC associated with protected allowance could be seen as a time value of money adjustment, the RCV run off is effectively an annual customer contribution to the repayment of capital raised from equity and debt. If the RCV run off associated with protected totex is clawed back through the underperformance payment, the company would effectively under-recover the capitalised part of its totex allowance (unless a corresponding reverse payment is made when the PCD is delivered). This under-recovery creates additional asymmetric risk for companies.

We also disagree with Ofwat that there will be insufficient incentives for timely delivery under option 1. Where PCD outputs are linked to statutory obligations or are otherwise vital to our operations, we already face strong incentives to deliver outputs on time.

In calibrating the outperformance rate, Ofwat has considered evidence on the target and out-turn dates for PR19 WINEP schemes. Ofwat ranked companies by the percentage of schemes delivered on time by the company. It found that the company at the 10th percentile delivered 65% of its schemes by the target date, while the company at the 90th percentile delivered 95% of its schemes on time. Where schemes were delayed, Ofwat said that they were late by an average duration of 1 year.

Ofwat found that setting the outperformance rate at one quarter of the equivalent under-performance rate would result in “the mid-point between the payments for 10th percentile and 90th percentile companies being broadly balanced”.

While Ofwat’s analysis of historical WINEP schemes is clearly relevant to the calibration of the outperformance payment, Ofwat should not rely exclusively on that analysis, for several reasons:

- The PR19 WINEP target dates are not directly comparable to PR24 PCD target dates set by Ofwat. For example, in relation to storm overflows, the WINEP target is to deliver the specified outputs largely by the end of AMP8, whereas the PCD includes interim annual targets for each year of AMP8.
- We are expecting a significant step-up in the level of activity in AMP8 compared to AMP7. This means that the historical performance in terms of on-time delivery may not be repeatable in AMP8.

These factors mean that Ofwat’s analysis is likely to overestimate the probability of on-time delivery against its proposed output delivery profiles, leading to the incentive mechanism being biased towards under-performance payments. This is an additional source of asymmetric risk that companies face. Ofwat should recalibrate the outperformance payment rate to better reflect the probability of on-time delivery against its profiles so that the overall mechanism is less likely to be biased.

Ofwat has asked for stakeholder views on an alternative proposal where it would apply “an output band (say +/-20%) within which we would not apply either underperformance or outperformance payments.” We support this proposal in principle, but it would not be a substitute for recalibrating the outperformance payment as set out above.

9.7 Overall Ofwat's proposals lead to increased and asymmetric risk to companies

Ofwat’s proposals for PCDs to cover the majority of our enhancement activity and some base activity (i.e. mains renewals) changes the nature of totex allowances compared to previous price controls.

Totex allowances covered by PCDs are now explicitly conditional on the delivery of the PCD output and meeting the conditions associated with individual PCDs. Such conditionality is not necessarily a new feature of the price control, and previous price controls have included customer protection mechanisms, and Ofwat has set scheme-specific PCs in PR19 that have a similar effect to PCDs. However, Ofwat’s PR24 proposals for PCDs increases the scale and widens the scope of activities and allowances that will now be covered by such conditions.

Ofwat’s move towards a greater use of conditional allowances changes the nature of risk for companies as set out below.

9.7.1 Delivery risk

Companies are potentially exposed to increased and more immediate financial consequences from non-delivery of funded activities. While companies are already exposed to future performance risk in some cases (e.g. through statutory and regulatory obligations, and ODI penalties), the use of PCDs by Ofwat also exposes companies to *additional* direct revenue risk through clawback of allowances. There is no countervailing opportunity to earn more than the allowed revenue for over-delivery.

9.7.2 Loss of flexibility

Companies will potentially have reduced flexibility to adapt their expenditure plans within-period and to direct spend towards other areas in ways that they consider to be more effective at delivering benefits to customers and the environment. Once set, Ofwat is proposing to allow no flexibility in making changes to PCDs (other than in the very limited ways that it has explicitly allowed for). Deferral of expenditure to future periods (even if that is the efficient thing to do for the long-term) would lead to the loss of allowances in the short-term and the risk that it is not funded in future periods.

The proposed PCD framework creates asymmetric risk for companies as set out below.

9.7.3 Risks arising from factors outside reasonable control

Even the notionally efficient company could potentially be unable to deliver a PCD due to factors outside its reasonable control, and therefore face PCD non-delivery payments. It is not practically possible to anticipate and mitigate all risk that the company is not able to deliver its PCDs. Ofwat has provided no indication that it will consider the reasons behind non-delivery or delay before applying PCD payments. On the other hand, there is no scope for the company to outperform or receive more than the totex allowance by *over-delivering* against the PCD. In comparison, Ofgem’s timely delivery ODI for electricity transmission includes an exemption from penalties for delays that can be attributed for factors outside the companies’ reasonable control.⁴⁹

9.7.4 Interactions between ODIs and PCDs

While Ofwat has proposed to not take account of the interactions between ODI payments and PCD payments in the event of non-delivery, Ofwat’s own analysis shows that there is the potential for duplication of penalties in some cases. At the same time, Ofwat has proposed to take account of the impact of funded

49 Ofgem (2022) Decision on accelerating strategic transmission investment, paragraph 7.51.

enhancement activity when setting PCLs for ODIs. This means that unless Ofwat allows ODI payments to be netted off against PCD payments, companies face asymmetric downside risk in the event of non-delivery.

9.7.5 Ofwat’s approach to calibrating time incentives

Ofwat’s reliance on historical scheme data to calibrate its time incentives could overestimate the likelihood of on-time delivery, and therefore underestimate the level of on-time payment required to create a symmetrical time incentive.

9.7.6 Overall risk position

Under Ofwat’s proposals, companies will be exposed to increased and more immediate financial consequences from non-delivery of funded activities. While companies are already exposed to future performance risk in some cases (e.g. through statutory and regulatory obligations, and ODI penalties), the use of PCDs by Ofwat also exposes companies to additional direct revenue risk through clawback of allowances. There is no countervailing opportunity to earn more than the allowed revenue for over-delivery.

Unless Ofwat makes changes to its proposed approach to flexibility, companies will be severely constrained in their ability to adapt their expenditure plans within-period and to direct spend in ways that they consider to be more effective at delivering benefits to customers and the environment. Once set, Ofwat is proposing to allow no flexibility in making changes to PCDs (other than in the very limited ways that it has explicitly allowed for). Deferral of expenditure to future periods (even if that is the efficient thing to do for the long-term) would lead to the loss of allowances in the short-term and the risk that it is not funded in future periods.

Despite this, Ofwat’s analysis of RoRE risk does not account for the increase in asymmetric risk created by its PCD proposals. Ofwat has made the unsubstantiated assumption that the proposed PCD non-delivery payment does not create a “material risk for an efficient company” that it cannot recover “abortive” costs. However, it is plainly obvious as set out above that even the notionally efficient company faces the prospect of being unable to recover its efficiently incurred costs with a non-zero probability.⁵⁰

Ofwat’s proposed approach stands in stark contrast to Ofgem’s established approach in the energy sector, which recognises the potential impact of delivery mechanisms on aggregate company risk exposure and asymmetric risk, and makes explicit allowances within its framework to mitigate those risks as set out earlier in this section.

50 For example, Ofwat’s proposed PCD for first time sewerage connections defines the output in terms of the number of connected premises. As set out in the PCD-by-PCD section of this document, we are only able to deliver the infrastructure needed to enable the connection, but whether or not the customer chooses to connect is not within our control.

51 Ofgem (2024) RIIO-3 Sector Specific Methodology Decision for the Gas Distribution, Gas Transmission and Electricity Transmission Sectors, paragraph 6.13

Ofwat should make the necessary changes to address the asymmetric risk at source as set out in our Representations. To the extent that there is any residual asymmetric risk at final determinations, that should be properly recognised in Ofwat’s RoRE analysis and appropriate adjustments to the WACC made.

9.8 The proposed framework creates a material increase in reporting and assurance requirements

Ofwat has proposed that companies publish a delivery plan for their PCDs in April/May 2025, and an independently assured version of that plan by July 2025.

Companies will be required to submit 6-monthly progress reports, covering all of their PCDs, one in October/November and the other in April/May of each year. The April/May report is to be independently assured and companies would be required to publish the assured version alongside their APRs in July of each year. Separately, each PCD may have its own bespoke reporting and assurance arrangement.

We believe that Ofwat’s proposed reporting and assurance arrangements create significant new administrative burden and additional costs for companies (and for Ofwat). The reporting requirements will be resource-intensive and the requirement for independent assurance creates an additional material layer of costs compared to historical levels of expenditure. This additional cost is not remunerated through Ofwat’s proposed base cost allowances and will require consideration in the Final Determination.

It is not clear what value is added by requiring companies to submit 6-monthly progress reports compared to annual reporting. These reports take up valuable time and resource, and it appears that Ofwat has not considered the impact of this requirement on companies’ resources and its own staff time for reviewing companies’ submissions across all PCDs every 6 months. We suggest that Ofwat removes the requirement for the October/November report, and instead requires companies to submit one report for annually.

In this context it is worth noting that Ofgem’s RIIO-3 methodology decision recognised the need to reduce the administrative burden associated with PCDs, and proposed to introduce a materiality threshold of £15m for setting PCDs.⁵¹ Furthermore, Ofgem categorises PCDs into two types: mechanistic and evaluative PCDs. Ofgem requires light-touch reporting from companies in relation to mechanistic PCDs. We would urge Ofwat to consider similar lighter-touch reporting

arrangements for simpler high-volume lower-value PCD outputs such as metering. Even scheme specific PCDs should have the requirements streamlined and made as consistent as possible between PCDs.

9.9 Application of PCDs to base expenditure and mains renewal

We believe that the principle of introducing a PCD for base costs is counter to the overarching totex and outcomes framework and should be reconsidered in the Final Determination (FD). This impacts on companies' ability to manage their portfolio risks, including the health of other types of asset. This concept is discussed further in the base cost section of our representations which should be read in conjunction.

If Ofwat retains this PCD in the FD, the volume of mains renewal activity should be aligned to a reasonable level of what is funded by the base cost models. We discuss this in our Mains Renewal Cost Adjustment Claim (ANH_DD_010).

In our Price Control Deliverable Detailed Commentary ANH_DD_016 we outline the potential benefits of a newly emerging technology which enables structural main spray relining. We are concerned that as currently drafted this PCD precludes this exciting innovation and in the FD propose the PCD is amended to include relining that demonstrably rehabilitates water mains and increases their asset life by at least 50 years.

10 Customers at the heart of our plan

Summary of our Representations

- For PR24, we have continued to develop our robust and innovative customer engagement research, designed and conducted in accordance with guidance from Ofwat and other regulators, then independently reviewed and challenged by our Independent Challenge Group and the Consumer Council for Water. We were pleased to see that this work met Ofwat's expectations in all categories for customer engagement.
- It was therefore disappointing that in a few areas, Ofwat's decisions at DD disregarded the clearly-expressed customer preferences revealed by this high-quality research, often imposing a one-size-fits all approach that does not reflect our customers' needs or priorities. Details are provided in relevant sections of the Representations but, for example, the DDs place no weight on the views and values our customers place on service and are not reflected in the setting of outcome delivery incentive (ODI) rates.
- We look forward to working with Ofwat and the wider industry to ensure a customer-focused PR29 plan which will be paramount in rebuilding trust and demonstrating a foundation of reliability and integrity.

10.1 Introduction

We are dedicated to delivering the best outcomes for customers and the environment, based on robust and innovative customer engagement research. Having met Ofwat's expectations in all categories for customer engagement, we believe the performance challenges imposed are not always aligned with the high-quality customer insight we provided.

10.2 Customers' views in the Draft Determination

We believe Ofwat's Draft Determination does not fully reflect the preferences and priorities of our customers, as revealed by our extensive customer engagement research. A one-size-fits-all approach to setting efficiency and performance targets has been applied, without taking into account the regional and local circumstances and challenges that Anglian Water and its customers face. We

developed comprehensive research to inform our performance commitments and have truly focused on embedding our customers' voice at the heart of our business plan.

An example of this is in the setting of incentives to drive performance. We have a proud history of engaging with and understanding our customers valuation of the service we offer. This was identified as sector leading by Ofwat at PR19. We maintained this body of evidence at PR24. We have compared the values resulting from our customer valuations with the incentive rates in the DD, shown in the table below. On the whole it appears the DD significantly overvalue service compared to the views of our customers. This could incentivise us to improve service and incur costs beyond the value that customers place on that aspect of performance.

Table 10 Incentive rate comparison

PC	DD rate £m	AW Societal valuation rate £m	% difference AWS to DD
Water supply interruptions	0.982	2.811	-65%
Customer contacts about water quality	32.755	1.817	1703%
Internal sewer flooding	18.267	23.295	-22%
External sewer flooding	6.785	1.658	309%
Leakage	0.909	0.142	540%
Per capita consumption	0.962	0.382	152%
Business demand	0.254	0.142	79%
Total pollutions incidents	2.798	0.595	370%
Bathing water (per bathing water)	2.2176	2.063	7%

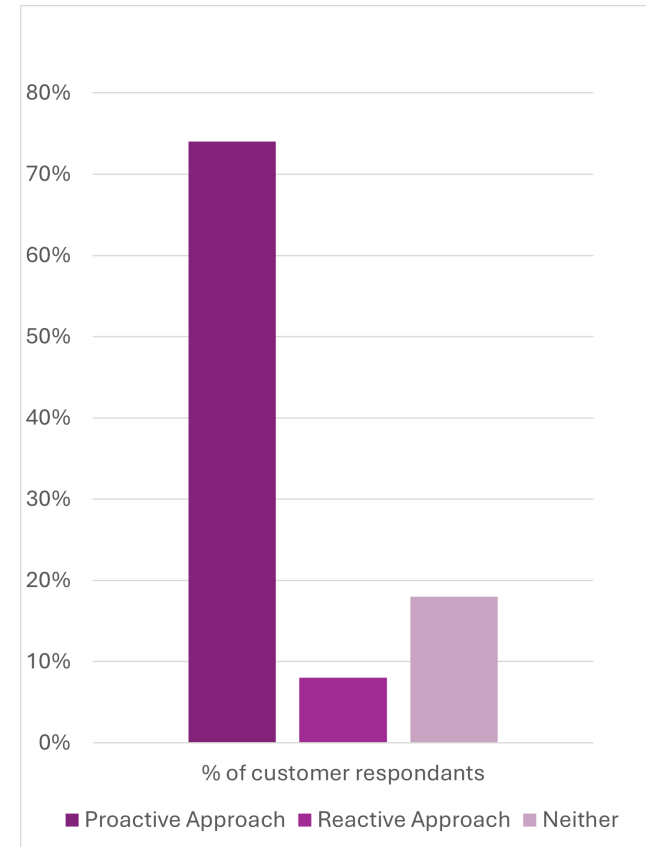
10.3 Our Customer Engagement Research

Building on our PR19 customer engagement we have further developed our comprehensive customer research and engagement strategy. This strategy is designed to evidence the 'golden thread' between customer research and business decisions, ensuring that customer insights are effectively translated into action. Our PR24 customer engagement research was designed and conducted in accordance with best practice principles and guidance from Ofwat, the Customer Engagement Policy Forum, and the UK Regulators Network. The research involved a wide range of methods and techniques, such as surveys, focus groups, deliberative workshops, and online platforms to reach and understand the views of a diverse and representative sample of customers. The research was independently reviewed and challenged by our Independent Challenge Group, which comprises representatives from consumer, environmental, and social groups, as well as the Consumer Council for Water. We have also worked closely with our Customer Board to review and scrutinise our approach. The research provided robust and reliable evidence of customers' willingness to pay, acceptability, affordability, and satisfaction with its proposed business plan.

We've continued to update our synthesis of customer engagement and research, providing valuable insights and ultimately enhancing our ability to develop our customer-centric business plan. Alongside our response to Ofwat's Draft Determination we are submitting this updated version of our synthesis containing the latest customer research (Ref: ANH_DD_056). By leveraging these insights, our company can make informed decisions that resonate with our customers and stakeholders.

As outlined in our business plan, we believe a proactive approach long term planning to mitigate the impacts of climate change is in the best interest of our communities and the environment. The delivery of many of our proposed schemes are core to this proactive approach and should be reconsidered within Ofwat's assessment of our business plan. To ensure our plan is aligned to customer expectations, we reengaged with our Online Community panel in August 2024 (ref: ANH_DD_057). The engagement material was developed in collaboration with our Independent Challenge Group who provided a level of impartial scrutiny that we were able to act on. With over 150 respondents the panel overwhelming opted for a proactive approach 74% with only 8% seeing a more reactive approach to be more favourable.

Figure 17 Summary of results of customer engagement



Although balancing affordability and customer bills is key to ensuring we're delivering value for money, customers on the panel opted for a plan that would involve slightly higher bills but delivering more to manage the impacts of climate change. Based on our customer engagement research we believe that our business plan delivers against the wants and needs of those we serve.

The majority of those customers asked (55%) believed that a small increase in cost was justified by the significant improvements and long term benefits and represented value for money.

Quotes from online community panel

“For the sake of a couple of pounds extra, the extra benefit is worth the extra cost”

“We need to do as much as possible in the shortest amount of time to balance our communities and planet.”

“That extra money spend now “could” save pounds in the future”

10.3.1 Customer Engagement Feedback within Anglian Water's Long Term Delivery Strategy

Our customer engagement research informed the development of our Long Term Delivery Strategy, which sets out its vision and goals for the next 25 years. The strategy is aligned with the United Nations Sustainable Development Goals and reflects the needs and expectations of its current and future customers, as well as the challenges and opportunities of its operating environment. It received overwhelming support from customers, with 86% of customers finding it acceptable and 82% finding it affordable. However, we feel that some aspects of the long term delivery plan have been neglected by Ofwat. Since publication of the Draft Determination, we have met with our Independent Challenge Group twice to discuss the implications of the Draft Determination and our Representations. Having worked closely with our Independent Challenge Group to develop and scrutinize our Long Term Delivery Plan, they are in support of a business plan that works in context with long term goals.

10.4 Future Ambitions

As we look forward, our commitment to customer engagement remains a cornerstone of approach. We envision a future where our business plans not only meets but exceeds the expectations of our customers, offering unequivocal value and affordability.

Central to our forward-looking approach is the further development of our Independent Challenge Group, a testament to our dedication to transparency and accountability. This initiative will play a pivotal role in amplifying the voice of our customers, ensuring their insights are integral to our decision-making process.

Our ambitions will continue to embed and prioritise customer engagement within our decision making process through centralising our extensive customer insight programmes and leveraging the latest technology like machine learning and artificial intelligence. Exploring new and innovative ways to distil key themes from extensive research and reshaping the future of customer engagement.

In light of these ambitious plans, we envisage a collaborative approach to customer engagement as we move towards the next price review process. We believe working alongside Ofwat and the wider industry is vital in delivering a customer-focussed PR29 plan, paramount in rebuilding trust and demonstrating a foundation of reliability and integrity. This will undoubtedly shape the future of our customer engagement, as we continue to place our customers at the heart of everything we do.

11 Developing Strategic Resource Options

Summary of our representations

We welcome Ofwat's intentions in its approach to Strategic Resource Options ("SROs") in the Draft Determination. However, we are concerned that Ofwat's proposed process and mechanisms are ill-suited to promoting the timely delivery of projects of this complexity and scale - which in our case applies to our Fens and Lincolnshire Reservoir SROs.

In particular, Ofwat's approach to contingent allowances and cost-sharing places excessive, non-controllable, risk on companies and fails to reflect the risks involve in infrastructure projects of this scale. Ofwat's incentive mechanism risks imposing "double jeopardy" penalties and distorting incentives (to prioritise short-term costs over long-term value) to the detriment of customers.

Fundamental changes are therefore needed to Ofwat's overall approach to major infrastructure delivery: We therefore propose that our SROs are addressed through a separate price control process and are committed to working with Ofwat to develop an appropriate governance and regulatory framework for these projects.

Based on current information since we submitted our Business Plan, our total development cost for these projects has increased (from £324.8m for both projects to circa £460m for Fens Reservoir and £193m for Lincolnshire Reservoir).

For the Lincolnshire Reservoir, we propose to focus on the development phase in AMP8. This remains consistent with our WRMP water into supply timescales and smooths costs for customers.

For the purpose of our Draft Determination Representations and Updated Business Plan, we propose to retain our initial estimate of £324.8m. However, we urge Ofwat to provide these as baseline cost allowances, rather than a proportion of them as contingent on specific milestones. We also consider there to be a compelling case for Ofwat to explore a more dynamic approach to setting cost allowances mid-AMP for these projects to reflect major strategic decisions that are still to be made (e.g. phasing, land and enabling works) and adjust for factors outside of AWS reasonable management control. This could be similar to the PR19 "Strategic Regional Water

Resources reconciliation model", and achieved via a Project Representative body, with independent third-party oversight of spend (as in other major projects) and could replace Ofwat's cost-sharing approach.

Finally, given the scale and likelihood of risk events, We propose Ofwat consider a potential re-opener for factors outside of management control.

11.1 Overview

The delivery of two major reservoirs in our region is essential in ensuring the region has sufficient water in the future and supports government's growth ambitions. This will require collaboration and concerted effort from all stakeholders.

Our commitment to these projects is unwavering. We have further demonstrated this commitment, specifically for the Fens Reservoir, which is central to unlocking growth in Cambridge, by taking full responsibility for development costs expected in AMP8.

The Draft Determination sets out Ofwat's emerging approach to dealing with cost uncertainty and risk management in dealing with all Strategic Resource Options (SROs). We recognise the good intent behind Ofwat's approach to funding and risk management for the SROs.

11.1.1 Overall treatment of risk and return

Overall, the Draft Determination creates unacceptable regulatory risk given the uncertainty associated with the development of major infrastructure. This needs to be resolved in order to unlock investment for these major projects, which are critical for economic and housing growth, and to protect the long-term interests of the environment and customers.

We are concerned that the current proposals will fall short in delivering the right outcomes for customers. The development phase of major infrastructure projects such as these SROs is key to securing long-term value for customers.

The traditional regulatory tools to create strong incentives to minimise costs in the development phase of major infrastructure will not always align with the overall objective to maximise value for customers and could impact the overall delivery scheme costs. For example, and especially within the context of reservoirs, a

decision by the Sponsor to spend extra on ground investigations during the development phase, can make the difference between affordable and unaffordable construction price tenders and/or later contractor compensation claims.

Our specific concerns with the Draft Determination are as follows:

- Ofwat did not grant our request for a cost re-opener mechanism to reflect risks outside our control and project uncertainty. We have not included a large contingency for development phase risks which we do not consider to be in customer interests. The Draft Determination approach does not align with key successful precedents, such as Thames Tideway Tunnel (“TTT”) and Havant Thicket Reservoir (“HTR”).
- Ofwat has proposed categorising some areas of spend as contingent - this does not allow us to raise finance and does not recognise the schedule necessity that procurement and enabling works activities run concurrently to the Development Consent Order (“DCO”) examination process.
- Ofwat has proposed a level of Totex sharing which incentivises short term outcomes at the expense of customer value for money and, compared to the rates proposed in our business plan, exposes us to material financial risk for factors which are outside of our control at the same time as weakening protection for customers in the event of underspend or delay. This mechanism does not align with key precedents such as TTT.
- Ofwat has introduced a package of delivery risk incentives balanced by a stronger future positive ‘success fee’ reward based on timeliness and quality delivery of the project six months following IP contract signature. We consider that the DPC incentives do not provide a measurable framework against which performance can be assessed, present double jeopardy for to us and potentially incentivise sub-optimal outcomes for customers.
- Given the scale and complexity of the SROs, We consider that regulatory risk substantially exceeds BAU regulatory risk. We therefore proposes an approach similar to that adopted by TTT whereby Ofwat confirm historic costs as being economic and efficient on a periodic basis.

Ofwat has recognised that its approach to SROs is the most significant part of the price control that requires collaboration with companies to ensure the right conditions and regulatory framework are in place to support these projects.

11.1.2 Development cost updates

As part of our Business Plan, we estimated the AMP8 development costs for both Fens and Lincolnshire Reservoirs would be £324.8m. Ofwat has reflected these costs in the Draft Determination through either up-front or contingent allowances. We have continued to work on the scope and components of these costs, and they

have been discussed since business plan submission with the Anglian and Ofwat major infrastructure teams. For the purposes of our representations, we have retained the initial estimate.

However, we recognise that this initial estimate reflected a low level of maturity. Work has continued both internally and with external third-party support to update these estimates.

Our current view of the revised cost estimate has increased. Our development cost estimate is now circa £460m for Fens Reservoir and £193m for the Lincolnshire Reservoir.

These revised cost estimates reflect revised timetabling for the Lincolnshire Reservoir. This will enable the Fens Reservoir to be prioritised given the immediacy of the growth demands linked to Cambridge. On this basis we would only undertake the DCO for the Lincolnshire Reservoir in AMP8 to target efforts and smooth the competition for resources. This updated estimate does not include full land acquisition or a provision for risk. The revised estimate has been subject to independent assurance.

11.1.3 Next steps

We are fully committed to work with Ofwat to develop a more dynamic approach for major infrastructure recognising the limitations of the traditional 5-year price review process and the need to appropriately reflect the scale and timeliness of costs required to develop this major infrastructure.

11.2 Introduction

We fully support Ofwat’s objectives to protect customer interests as set out in the Draft Determination. We also recognise the significant effort and positive intention set out in the Draft Determination and welcome an opportunity to evolve this into a new way of delivering essential infrastructure in the UK that supports growth whilst ensuring value for customers.

However, the Draft Determination doesn’t adequately recognise the nature and risks of infrastructure development compared to core water company activities.

We support the wider views of HM Treasury and NIC ⁵² that the right time and effort needs to be invested at the development phase of major projects to ensure delivery. This is where value for customers is determined, and it is critical that appropriate regulatory arrangements set at this stage help to deliver the outcomes rather than become mere inputs to the process

52 <https://committees.parliament.uk/publications/4491/documents/45207/default>

11.2.1 Status of the SROs

The SROs are still at a relatively early stage of maturity - some fundamental aspects of the schemes have changed since our Business Plan submission and will continue to change as the SROs mature:

- Total scheme costs are being refined as the SRO scope becomes more certain. These estimates will not be fully updated until Gate 3.
- We have undertaken a fundamental review of the SRO Development Costs and risks associated with each element. We have commissioned internal and external assurance of the development of these costs.
- We have reviewed the approach of undertaking both SROs in parallel and concluded that Fens should be prioritised, followed by Lincolnshire and be undertaken in series rather than in parallel. This prioritisation aligns with the WRMP, reflects the balance of customer interests, reduces prolongation risk, allows for learning, reduces demand for resources at peak times and increases delivery certainty which benefits the interests of customers.
- We have analysed the schedule and identified activities required to de-risk the schedule to secure Fens Water into Supply (“WIS”) by 2036. Proposals are early-stage and will be refined as we undertake site surveys and obtain statutory consultee and regulator feedback (e.g. related to environmental mitigations along with habitats and species translocations).

11.2.2 Our business plan proposals

Our October Business Plan submission sought to reflect the early stage of development of the SROs by proposing mechanisms that allow cost allowances to adapt to changes in circumstances and risks materialising without the need for large contingencies. These mechanisms included a notified item, and our assumption was that this would provide a re-opener for cost allowances in line with key industry precedents for major projects such as TTT and Havant Thicket Reservoir (HTR).

We also requested a separate price control, 100:0 sharing rates and 100% PAYG (subsequently amended by the query process).

Our Business Plan submission did not include a provision for risk and uncertainty on the basis that Ofwat has previously recognised that it is not in customer interests to include large contingencies and accepted that there is ‘significant cost uncertainty at the early stage of project development’.⁵³

11.3 Risks and Uncertainty

11.3.1 Major strategic aspects remain open

The SROs are at a relatively early stage in the development; there are several strategic aspects which remain open that will have a material impact on Development Costs.

We do not consider it realistic or feasible to resolve all of these within the constraints of a price review process.

We also consider Ofwat alignment on these issues is key, to ensure that decisions are not dictated by cost allowances and incentives but also good project governance and an acute focus on customer interests. Some examples of strategic aspects which remain open that will have a material impact on Development Costs include:

- Infrastructure scope for reservoir systems - We do not have final view of configuration of final infrastructure such as the additional treatment processes that may be required.
- Schedule phasing (of the SROs) and relative to other major projects
- Enabling Works scope (de-risking schedule)
- Land acquisition strategy (de-risking schedule)
- Scope of mitigations required for procurement (e.g. reference design, archaeology, GI, trial embankment, etc.)
- Procurement strategy (Early Contractor Involvement (ECI) vs Target Cost, packaging and risk transfer)
- Operations strategy - AWS has not finalised its position on who will operate each asset. This is complicated by the balance sheet implications and complexity of commercial interfaces.

A fixed funding envelope (or Totex sharing arrangement) risks incentivising decisions which will not always align with value for customers (as required in HMT Green Book definition of value for money).

11.3.2 Risks

We accept our responsibilities to safeguard customers from unnecessary costs that are within management control.

Good industry practice, as prescribed by HM Treasury Major Project guidance and the Green Book recommends that risks should only be transferred to parties to the extent that they are in control of those risks. We note that there are significant risks outside of our control during the SRO development phase.

53 PR19-final-determinations-Havant-Thicket-appendix.pdf (ofwat.gov.uk)

Design - This design solution needs to be agreed with third parties (e.g. Environment Agency (EA) on water quality and abstraction licences) and statutory consultees (e.g. RSPB, Natural England and EA). Some examples of key risks associated with the design are:

- Treatment required for raw water transfers to comply with Water Framework Directive (WFD) and Invasive Non-Native Species (INNS) regulations is as yet undetermined. It is possible that the scope of assets will need to be amended if the level of treatment does not satisfy regulators.
- Habitats Risk Assessment (HRA) may mean that an element of a project is no longer viable at the location identified requiring selection of an alternative site. This could lead to a substantial delay and reworking of the current scheme.
- Ground investigations could reveal information that requires substantial redesign of the SROs. This could be revealed by the ongoing ground investigation programme or by the trial embankment/compaction test required by the reservoir Construction Engineer before construction commences. It is possible that this redesign means the DCO application requires amendment and resubmission to accommodate this.
- Environmental permitting for raw water abstraction for both SROs needs to be confirmed by the Environment Agency. This process could result in a change to the infrastructure configuration.
- There is high potential for archaeological discovery which we are mitigating the likelihood of through targeted evaluation (trial trenching) as agreed with stakeholders, but the sites are extensive and need to be investigated on a risk basis (in line with good industry practice).

Consent -The development consent process is iterative, and AWS must consider the results of environmental assessments and consultations. This process relies on statutory consultees who will need to agree to the approach - in certain circumstances there could be a potential conflict of views / legislation - e.g. raw water transfers. Some examples of key risks associated with the development costs include:

- We have a legal duty to respond to any consultation feedback - the volume and content of consultation responses could be a material and cause programme delay.
- A legal challenge to the Secretary of State's decision could come from several sources such as landowners, consultees or environmental NGOs as examples.
- Licences and permits from the Environment Agency or other consenting bodies not included within the DCO process may also not be forthcoming and may lead to extra costs and delays whilst these are finalised.

- There may be a requirement from the planning inspectorate to undertake additional technical work or extra public consultations before or after the DCO is submitted, such as happened on Lower Thames Crossing (LTC).
- There were interim consultations on TTT which were additional to those identified in the original 3 stage consultation strategy.

Procurement - The SIPR process has a single reference project (which was for different infrastructure in a unique urban location); the construction and financial markets have also changed significantly since TTT was procured and there is no standard approach for SIPR projects. We will engage capability, but there is limited experience. AWS will manage the activities, but we also note that the efficiency, outcome or timeline of the process is heavily reliant on third parties (market and regulator), with many key aspects yet to be defined and agreed. This is because the views of third parties (market participants) are key to the process and reliable views can only be sought at an appropriate point of scheme development.

11.3.3 Risk Management

The mechanisms to deal with risk associated with development and delivery of major projects is critical. We note that risk was a key area of focus in the later stages of the TTT and HTR projects when projects were at a substantially more mature level of development.

The Draft Determination set out Ofwat's views on how costs and risks are expected to be managed. The Ofwat proposals focus on the role of base and contingent cost allowances and the derivation of cost sharing rates as the way of managing risks.

We retain serious concerns that it is not appropriate to fix cost allowances based on early-stage risk analysis - this could potentially lead to customers paying for unnecessary contingencies. This approach aligns with the precedents set by HTR and TTT in which Ofwat recognised that large contingencies set at an early stage of development are not in customer interests.

We have not currently included a provision for risk events (QCRA) nor a large provision for optimism bias. Risk events present material financial and reputational risks to both Anglian and Ofwat.

Due to the early stage of project maturity, the risk analysis is nascent, and any quantified risk would not be sufficiently developed to justify an investment decision, either by Ofwat or Anglian.

Considering the above, we believe there is a compelling need to develop an alternative mechanism to deal with risks. As and when risk events occur (e.g. planning failure, procurement failure, inflation, etc.) there is no pre-determined course of action - decisions depend on the best information available at the time

and the relative priorities of the Sponsors. It is important that there is an agreed framework to align views on cost, schedule and risk. Once this is in place, the Sponsors should have an aligned view of what is an appropriate course of action when risks materialise.

A good example of this is in the event of planning failure, where options may include demobilisation or adjustments to the project schedule. Both Ofwat and AWS will need to be aligned over the best course of action at that point in time - a failure to align will result in dispute over whether costs incurred are economic and efficient. This level of regulatory risk goes beyond BAU regulatory risk due to the scale of the reservoir systems and the very high level of uncertainty in the SROs during the Development Phase.

11.4 Phasing

11.4.1 Phasing proposal

To date, Fens and Lincolnshire Reservoirs have been developed simultaneously with the working assumption that planning and procurement would take place in parallel. The need for both these SROs is set out in our WRMP which has now been formally approved by the Secretary of State.

By way of recap, the strategic drivers and timetables for the two SROs are different:

- Fens Reservoir - the primary need is driven by licence caps, specifically the timing of capping permanent licences to average historical levels which needs to be achieved by 2036 per WRMP.
- Lincolnshire Reservoir - the primary needs case relates to the timing of meeting the 1 in 500-year drought resilience standard and achieving Environmental Destination. The target WRMP date is 2040.

As part of our continued development of the SROs, we have continued to assess the overall costs and benefits to timing of the SROs and our ability to effectively manage the risks associated with the development of these two assets, the likes of which have not been developed in the region since privatisation.

To aid this, we propose to stagger the phasing of the development stage of the Lincolnshire Reservoir.

Specifically, we propose the following:

- To rephase the Lincolnshire Reservoir DCO by approx. 2 years (submission date Autumn 2028) so that it follows after the Fens DCO (submission date Autumn 2026)
- To defer the activity and associated costs for Procurement, Reference design and IP establishment works for approximately 2 years and for this to be reflected in AMP9 rather than AMP8.

This approach smooths the funding requirements and allows greater certainty in material areas whilst retaining the ability to secure the assumed Lincolnshire Reservoir Water into Supply (WIS) date of 2040 consistent with the WRMP.

We propose to maintain the current schedule to target WIS for Fens by 2036.

11.4.2 Phasing Proposal benefits

We consider that there are key strategic benefits associated with rephasing the development phase of the Lincolnshire Reservoir, specifically:

- Reducing the pressure on supply chain for development resources;
- Reducing pressure on main works contractors during bid phase and delivery phase
- Reducing pressure on PINs for DCO approval
- Reducing risk of prolongation (quantum) if phasing decision is made once development teams are mobilised
- Reducing contamination risk during delivery between SROs (e.g. delay due to factors outside of AWS control such as inflation, GFC, etc.)
- Creating the opportunity for potential efficiencies derived from developing the Fens Reservoir to be reflected in the Lincolnshire Reservoir development; and
- Maximising replication opportunities (e.g. WTW design, commercial strategy) associated with staggering Fens and Lincolnshire Reservoir.

11.5 Revised cost estimate for development phase

We have continued to develop our understanding of the scale of development costs associated with the development of the two SROs.

In this section, we present the emerging evidence from our continued development of our revised cost estimate for Development Costs. We have populated Ofwat's requested SRO development cost pro-forma on the basis of this updated estimate.

For the purposes of our representations, we have retained the original estimate of £324.8m reflected in full in our totex allowances.

The current revised AMP8 development cost estimates for Fens are £460m and £193m for Lincolnshire Reservoir.

We will engage with Ofwat and RAPID over the Autumn to explore the revised estimate and agree how these costs are reflected as part of the Final determination. We have completed the SRO Cost Template for each of the schemes which can be found at ANH_DD_037 and ANH_DD_038.

11.5.1 Process and assurance

The overall Project Cost Estimates are being updated to reflect design development since the Business Plan estimate. Design Freeze 2 was in Q2 2024, and a revised Project Cost Estimate will be developed based on this design. Updated figures will be published in Gate 3 submissions (anticipated Fens in March 2025; Lincolnshire in September 2025)

Our approach to developing the Development Cost Estimate has included several layers of assurance:

- Initial cost estimates were developed by those leading each workstreams with input from the supply chain.
- A detailed development cost report which captures scope, key assumptions and risks has been created.
- Management has reviewed costs to align estimates, remove overlap, and ensure no gaps, align with SIPR commercial model, identify risks and exclusions and undertake high-level benchmarking against TTT costs, including reference to a KPMG produced benchmarking report.
- Management have conducted deep dives - this involved the Finance Director and internal specialists
- We provided internal assurance on the integrity of estimating tools and methodology.

11.5.2 Revised development cost estimate

We have undertaken a full, bottom-up estimate of costs since the Business Plan submission to reflect the maturing of SROs. The current revised development cost estimates for AMP8 are:

- Fens - £460m
- Lincolnshire- £193m

It is important to note caveats associated with the cost estimate and cost allowance request:

- The SROs cost estimates are still at a relatively early stage of maturity - development costs for infrastructure projects are inherently uncertain.

- Fundamental aspects are still not decided - land strategy, enabling works, operations and procurement strategy. These will take time to develop and agree with Ofwat.
- Development costs are not, and will never fully be, within our control - they are at the behest of planners and regulators such as the Environment Agency and Natural England. We have seen how development costs can change over time on similar large DCO (Development Consent Orders) projects such as Lower Thames Crossing and TTT.
- The estimate remains an early-stage based on the best information that we currently have. As with the Business Plan cost estimate, We do not consider this to be a suitable maturity against which to calibrate financial incentives.
- The estimate does not include any provision for risk events, including the risk of prolongation.
- It does not include any allowance for land acquisition (beyond that required for trial embankments)
- Major strategic decisions have not been made and therefore cost estimates will change.

Development costs are uncertain and take time to develop. We note the precedent of TTT where PR09 development cost estimate was circa £250m which increased to circa £800m by 2015 (including land).

11.5.3 Assurance

We have commissioned external assurance from:

- Gardiner and Theobald See ⁵⁴ benchmarking of costs against similar schemes with a focus on design, consenting, environment, project management and procurement costs.
- Agilia ⁵⁵ - review based on the procurement, legal and shadow IP costs based on the TTT precedent.

A key conclusion from the Gardiner and Theobald report is:

“Overall, the development estimate is appropriate for this early stage of the Project’s development. The development costs as a proportion of the overall project are within the range we would expect from comparable major projects. We have included a chart showing development costs as an uplift on direct costs (our preferred measure) for a range of comparable UK major projects.....the development costs (which exclude works, IP and AM7 allowances) for the Fens reservoir (£279m.⁵⁶) represent an uplift of 12.89% on the direct costs. The equivalent for the Lincs reservoir estimate

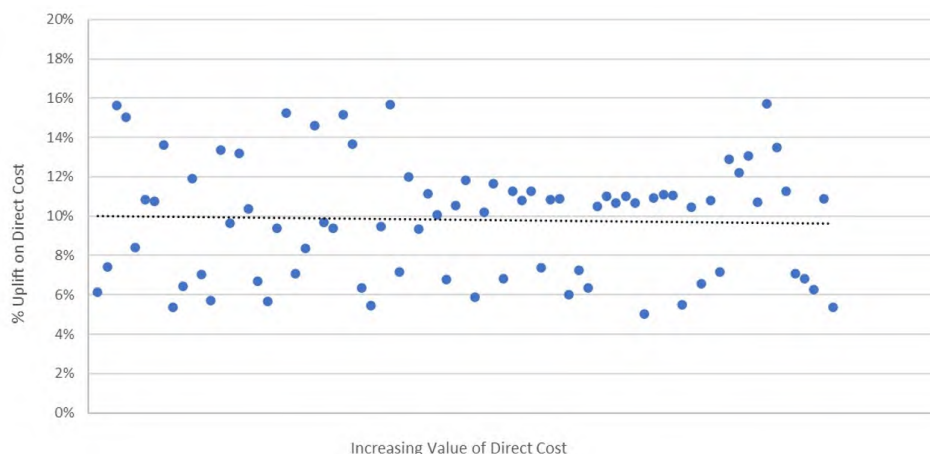
⁵⁴ ANH_DD_062

⁵⁵ See ANH_DD_061

⁵⁶ Note that G&T adjusted the cost estimate for like for like comparison with benchmarks - capital works and SIPR costs were removed from the estimate

(£281m) is an uplift of 10.72%. A sample of comparable, large UK infrastructure projects from our knowledge base provided a range of 5.04% to 15.71% (average 9.83%) and the results are shown in the chart below.”

Figure 18 Development uplift %



Agilia has provided a letter which confirms that the procurement, legal costs and Shadow IP costs are within the range that they expect to see at the current stage of the project maturity. Agilia notes that the Shadow IP related costs are at the higher end of the range expected due to the proposed early mobilisation of the Infrastructure Provider. This decision to mobilise the IP was based on feedback from the TTT team and the market that early mobilisation of the IP will be helpful in gaining market support for the SROs. It is noted that for the Lincolnshire Reservoir the Shadow IP build is expected to take place in AMP9.

11.6 Dealing with uncertainty

11.6.1 PR24 Business Plan request

In the Business Plan we proposed a range of mechanisms to address the uncertainties involved in these significant infrastructure projects, including a separate price control, 90:10 sharing rates (subsequently updated in a letter to 100:0), and a bespoke notified (re-opener) item.

Ofwat has not allowed for these mechanisms in its Draft Determinations.

11.6.2 Baseline v contingent

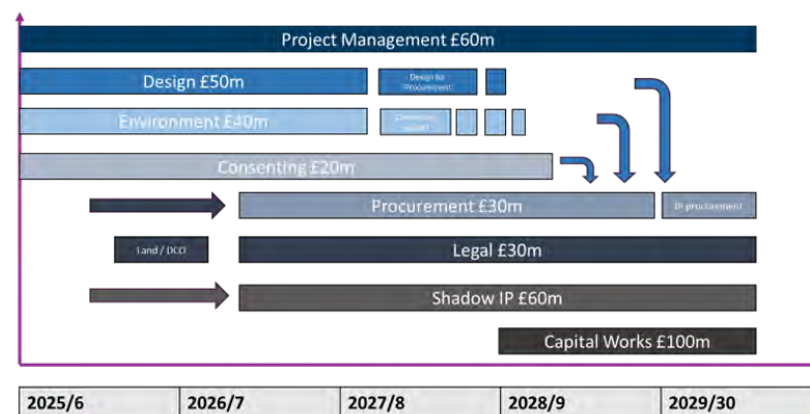
Ofwat has proposed a mechanism for funding pre-DCO application costs (Baseline) and post-DCO application spend (Contingent). Baseline is funded through 2025-30 bills and contingent funding is triggered on DCO application and subject to an end of period reconciliation to recover costs from bills in 2030-35.

This proposal exposes us to a substantial funding gap for Fens and Lincolnshire Reservoirs, although this would be reduced with an increase to Baseline allowances.

The current delivery strategy for Fens is for the procurement and IP activities to take place in parallel with the DCO - therefore, assuming that a decision to approve contingent funding follows the Judicial Review (JR) period for DCO, takes circa 3 months to enact and includes a 3 month provision to demobilise, this broadly coincides with the Fens forecast licence award date. See diagram below. On that basis, we understand that, unless all cost allowances are included within the Baseline allowance, WIS will be delayed by circa 3 years. We therefore consider it appropriate for all cost allowances to be included within the Baseline allowance.

For the Lincolnshire Reservoir, we are proposing to undertake the DCO only during AMP8 and therefore submits that all cost allowances should be treated as Baseline.

Figure 19



11.6.3 Totex sharing

Ofwat has proposed cost sharing for Baseline to be 60:40 (customer: company) and 75:25 for Contingent spend.

Given the current cost estimate and absence of re-opener/risk allowance, this creates a material exposure to financial risk.

We note this approach does not align with the HMT Green Book principles of risk allocation to a party that is able to control the risk, nor is it in line with the principles of Ofwat's DPC guidance ⁵⁷ which states that "The Appointee should also consider the extent to which contractual incentives could be applied to those parties who are able to influence the timely delivery".

The Totex sharing proposals create potentially perverse outcomes, for example the missed opportunity to "spend in development" to "save multiples in construction".

The Totex sharing proposals do not align with the precedents of TTT for early-stage development costs (pre-2014), nor HTR which a) had a cost adjustment mechanism and b) provided for management of development costs within a broader allowance of delivery costs.

11.6.4 Risk allowance / re-opener

We requested a notified item (re-opener) mechanism, which has not been supported by Ofwat in the Draft Determination.

Our previous cost estimates did not include any risk (QCRA) or optimism bias. Therefore, we do not have a regulatory mechanism to deal with risk events.

If the projects are delayed, We estimate prolongation costs to be in the region of £50m per year for each SRO.

Schedule delays (against early-stage cost and schedule estimates) for projects with large DCOs are realistic risk scenarios that need to be factored in.

This is illustrated by TTT which experienced a 2-year delay in DCO against the early-stage schedule estimate and Lower Thames Crossing which experienced a circa 4-year delay in DCO measured against the early-stage schedule estimate.

Given the scale and likelihood of risk events, AWS considers that the only viable approach is for a regulatory re-opener for factors outside of management control.

This proposed approach is in line with relevant market precedents, including the following:

- Thames Tideway Tunnel (TTT) - periodic letters of comfort provided by Ofwat
- Havant Thicket Reservoir - Cost Adjustment Mechanism ⁵⁸
- Nuclear RAB treatment of Development Costs ⁵⁹

⁵⁷ [DPC_guidance_publication_version_230323_FINAL-1.pdf \(ofwat.gov.uk\)](#)

⁵⁸ [PR19-final-determinations-Havant-Thicket-appendix.pdf \(ofwat.gov.uk\)](#)

⁵⁹ [Development costs and the nuclear Regulated Asset Base \(RAB\) model - GOV.UK \(www.gov.uk\)](#)

11.6.5 DPC Incentives

Ofwat has introduced strong negative incentives on the delivery of Stage 3 and 4 submissions which means penalties applied to Stage 3 funding can be applied again at Stage 4 - these apply to total cumulative allowed spend. This is balanced by a strong positive 'success fee' based on timeliness and quality delivery of the project six months following contract signature.

We consider that the DPC incentives present double jeopardy because a failure to achieve a gated milestone (for reasons outside of our control) will now result in a) schedule delay and associated cost overruns, b) remediation costs and c) DPC penalties.

Given the high potential penalties set out in the DD, we could potentially be exposed to penalties (which are subjectively judged) amounting to the majority of the allocated cost allowances.

Our view is that that the DPC penalties potentially incentivise perverse outcomes which prioritise short term schedule priority rather than long term value for money outcomes for customers. This is not appropriate for a first of a generation project of this scale and complexity.

Furthermore, there is no guidance available for SIPR projects and as such, there is a high level of subjectivity in relation to what is expected at each gate. The lack of a clear (specific and independently measurable) definition of what is expected at each gate, combined with a schedule uncertainty and risks outside AWS control, does not provide a sound framework against which performance can be assessed, nor one that forms a robust basis for commercial risk positions.

11.6.6 Regulatory risk (economic and efficient test)

Given the scale and complexity of the SROs, We consider that the level of regulatory risk anticipated under the DD substantially exceeds BAU regulatory risk and needs to be substantially refined before acceptance .

As noted in earlier, when risk events occur (e.g. planning failure, tenderer withdrawals from procurement, high inflation, etc.) there is no pre-determined course of action for the SROs.

This exposes us to the risk of retrospective disallowance of costs in circumstances where Ofwat takes a different view.

These types of events are not remote probability events; Lower Thames Crossing was required to resubmit DCO documents, leading to multi-year delays, Havant Thicket Reservoir had tenderer withdrawals resulting from high sector demand following the pandemic and the global financial crisis in 2008 led to the entire pipeline of UK PFI projects stalling for circa 12 months.

We propose that Ofwat adopts the approach taken for TTT whereby Ofwat signs off on historic costs on a periodic (e.g.6 monthly) basis.

This proposed approach is in line with relevant market precedents including:

- Thames Tideway Tunnel (TTT) - periodic letters of comfort provided by Ofwat
- Nuclear RAB treatment of Development Costs ⁶⁰

11.6.7 Our proposed way forward

We support Ofwat's intent, in the Draft Determination, to ensure that customers are protected in the delivery of the SROs.

However, the level of uncertainty and scale of risk associated with the SROs when combined with the regulatory framework set out in the Draft Determination place excessive risk on companies.

Revisions to these approaches for the Final Determination will help to secure the timely and necessary investment to keep delivery of the SROs on track and our ability to unlock growth and environmental improvements in the region.

Rather than proposing a suite of amended cost sharing tools and tweaks to the existing system, we propose that the SROs are taken out of the normal price control process and that Ofwat develops an appropriate governance and regulatory framework for these projects

The following sections sets out our initial views for next steps and how the governance arrangements for SROs could be developed further.

11.6.8 Totex sharing incentives

As noted above, we do not consider that the Totex sharing arrangements set out in the DD are commensurate with the levels of uncertainty and risk for the development stage of very large, complex and bespoke SRO. Furthermore, due to the many factors outside of our control, we do not think that it is appropriate to allocate risk on this basis.

We do not consider that Totex sharing should apply to the development phase of a project. This aligns with conclusions previously drawn by Ofwat on TTT.

As an alternative delivery model, we would be happy to work with Ofwat to develop proposals for an early SIPR model - we could potentially undertake market testing to establish whether such a corporate model is viable and explore the extent to which market participants would accept Totex sharing risk.

We are committed to working with Ofwat to explore forms of Totex sharing which are more closely aligned with equity returns, providing that this is evidence based and restricted to risks within price control.

11.6.9 Cost recovery alternatives

For the reasons set out above, there needs to be sufficient flexibility to allow the recovery of efficient costs which could be impacted by factors outside direct management control. We expect that these could be material given the nature and scale of the projects.

We have considered different mechanisms that could be used to reconcile the three wider considerations:

- **Customer protection** - does the mechanism ensure that customers are not paying for benefits that they do not receive?
- **Cost recovery** - does the mechanism allow for the recovery of efficient costs in a timely manner? Are there material working capital and equity concerns?
- **Implementation issues** - can the mechanism be easily and transparently administered?

We have also reflected on the previous approaches such as those in place for Thames Tideway, the DPC approach for HARP through these lenses.

Ofwat has expressed concerns over the onerous nature of the HTR Cost Adjustment Mechanism and the TTT quarterly sign-off of costs. However, we consider that the complexity and risk of these schemes warrant collective focus and that Ofwat's ongoing involvement is proportionate in this context.

We propose that the concept of a Project Representative could be introduced (see section below) to support Ofwat to fulfil its role as Sponsor and to facilitate optimal decision making.

This process, potentially combined with a clawback mechanism, would provide customer protections, ensure that projects are financeable, (including through the use of comfort letters) and provide a mechanism for Ofwat to engage at a strategic, rather than administrative level.

60 Development costs and the nuclear Regulated Asset Base (RAB) model - GOV.UK (www.gov.uk)

11.6.10 DPC Incentives

We are committed to work with Ofwat to explore an appropriate delivery incentive approach for the SROs. This will need to take account of the double jeopardy impact, be calibrated to be commensurate with equity returns and outcomes must be clearly defined in a way that can be independently measurable and not subjective.

11.6.11 Joint governance

We consider that Ofwat and RAPID, as Sponsors, need to be embedded in the governance arrangement for the SROs.

Ofwat and RAPID have a key role to play in strategic decision making for these projects which goes beyond that currently enshrined within the RAPID gated process.

It is not possible to codify Sponsor expectations on all eventualities. Therefore, we consider that the current RAPID framework does not go far enough for SROs of this scale and complexity due to the dynamic and iterative delivery environment for SROs.

We are unable to determine how Ofwat will judge costs to be 'economic and efficient' at PR29 to balance cost, schedule and risk in the context of a complex infrastructure project. For example, it is unclear what approach we should take in the event of DCO rejection or delay, which will depend on the specifics of the circumstances at the time - for example, whether teams should be demobilised or maintained. There are many other examples, based on other project experience (e.g. disrupted procurement, clashes with other projects, high inflation, market disruption, etc.), recognising that circumstances will be unique and macro-events are unpredictable (e.g. the global financial crash in 2008, Covid-19 pandemic, wars, changes in the construction market, etc).

We propose a governance framework on the basis of:

- A Joint Sponsor Board for each SRO comprising AWS, CWC (Fens only), RAPID, Ofwat and EA - with central government linkage to Defra & MHCLG as required. This would be for coordination rather than joint decision-making.
- Ofwat having full access to key strategies, cost, schedule and risk reports.
- Reserved matters remaining as per the RAPID gated process.
- An established process for assessing costs to be economic and efficient throughout the AMP.

11.6.12 Project Representative / Independent Technical Adviser

We propose that a Project Representative (an approach used in Central Government (DfT) Infrastructure Projects such as Crossrail and HS2) or Independent Technical Adviser (ITA) as used on TTT during the delivery phase, could provide the technical, commercial and major projects support to Ofwat to fulfil its role as Sponsor. The role of the Project Representative / ITA would be to provide assurance to Anglian and Ofwat as Sponsor, that our project spend is economic and efficient.

The Project Representative could be overseen by an expert panel, for which Terms of Reference would need to be developed in collaboration with Ofwat as a priority.

12 Our commitments to Customers

Summary of our Representations

The performance commitments and incentives in the Draft Determination are fundamentally flawed. They are asymmetric, mis-calibrated, and entail significantly greater risk than Ofwat's analysis assumes. The industry, including Anglian, would face material penalties from day one in AMP8. Ofwat must reconsider their approach and set reasonable stretch, penalty exposure, and risk to ensure AMP8 performance is a 'fair bet' for an efficiently performing company.

To address these issues, we ask Ofwat to focus on the following adjustments.

AMP8 start points are unrealistic

The starting point for AMP8 is critical to the calibration of ODIs. Currently, Ofwat assumes this to be the PR19 target, ignoring the evidence of actual company performance. Experience in AMP7 suggests that PR19 targets were unrealistic, and Ofwat's approach carries this error into AMP8. Pollutions and external flooding are particularly relevant examples.

We propose that Ofwat reflects the evidence of actual performance delivered in setting the baseline for AMP8, using the industry median instead of the PR19 PCL where there is a significant difference between the two.

ODI incentives are mis-calibrated

Ofwat aims to standardise incentive rates for companies and make ODIs more powerful in AMP8. The top-down approach attempts to allocate pre-defined RORE exposure to each incentive based on the relative importance of that PC to customers or other stakeholders. However, the incentives proposed in the Draft Determination fail to achieve this intent, delivering unreasonably high incentive rates and overall penalty risk exposure, sometimes far exceeding the intended allocation.

We propose a number of corrections to Ofwat's chosen method that would ensure appropriate inclusion of all relevant information now available. Furthermore, Ofwat must ensure that the RORE exposure in the final suite of incentives is aligned to the intended allocation. One method would be to introduce caps and collars at these levels per PC. Ofwat should also reassess the scale of RORE allocation for each category of PCs and consider adjusting these down to achieve a more reasonable set of penalty rates.

Pollutions and flooding adjustments

Our analysis suggests that in AMP8, more than 20% of external flooding and pollution incidents will be attributable to climate change, putting significant upward pressure on performance. This is consistent with our DWMP conclusions. The PCLs and associated funding for total pollution incidents and external and internal sewer flooding are mis-calibrated, exposing Anglian and industry to significant downside risk. We propose using the industry median performance between 2012/22 and 2023/24 as the starting point, moving to the average upper quartile by the end of AMP8. This would require significant improvement from our current performance but represents a reasonable performance expectation for the industry.

Demand management & leakage adjustments

The funding for the leakage PCL is insufficient for the higher costs associated with achieving and maintaining sector-leading leakage performance. Ofwat's DD overlooks that we are overspending our allowance in AMP7 and returning funding to customers through a cost recovery element in our ODI rate. We propose adjusting the funding settlement and PCL level to align with the performance expected of other companies, using a new leakage profile in line with our WRMP approach.

12.1 Overview

Outcomes, performance commitments and incentives are a key part of the regulatory regime for the water sector in England and Wales. Reflecting our direct contribution to the creation of the outcomes regime in PR14, we are passionate advocates of the outcomes regime, recognising its importance in driving ambition across the sector. Well calibrated incentives encourage companies to improve performance for customers and the environment.

Over successive price reviews this incentive regime has become more powerful. This means that the calibration is increasingly material for overall risk exposure. In the Final Methodology, Ofwat expects the outcome delivery incentives (ODIs) to be between one and three percent of the Return on Regulatory Equity (RoRE).⁶¹

In the Draft Determination Ofwat has proposed a number of decisions that have a significant impact on the overall risk faced by the industry. This includes:

61 Creating tomorrow, together: Our final methodology for PR24, page 69.

1. The assumption that an appropriate starting point for AMP8 are performance commitment levels (PCLs) for the end of AMP7 without regard for actual performance.
2. Highly powered incentives, tied to high levels of risk exposure (0.6 - 0.4% of RoRE). On average the incentive rates in the DD are increasing by 308% (adjusting for inflation) compared to the current regulatory period.
3. Ofwat state that risk asymmetry has been addressed from PR19, but this is based on risk analysis that is insensitive to the PCL which is assumed to be the P50.

The result of these decisions has profound consequences and are reflected in the negative outlook of the sector provided by ratings agencies. There is consistent concern about the skew of the package, for example KPMG's 'PR24 Risk Analysis of a notional company report' for the sector suggests that for the notional WaSC the risk range on ODIs is -3.68% to 0.08%.

As a simplistic example, for total pollution incidents, for which industry performance appears to have stalled in AMP7,⁶² if companies perform on average in AMP8 the same way that they have in AMP7, then the DD would result in nearly £1.7bn of penalty. This is an order of magnitude higher than the penalties Ofwat has historically applied for legal or regulatory non-compliance. We accept the need for companies to continue to deliver improved service, but this scale of penalty is disproportionate for a performance commitment that predominantly measures category three incidents which by definition have a minor impact on the environment.

We propose a number of targeted refinements, that would appropriately recalibrate the package of incentives for the Final Determination. Specifically:

- Ofwat fully reflects 2023/24 performance in both setting baselines and incentive rates
- Reflects industry progress in AMP7 for the baseline for AMP8
- Reconsiders the level of improvement expected in AMP8 given AMP7 performance
- Reconsiders the assumption in its risk analysis that the P50 is the PCL given the industry's performance in AMP7
- Resets incentive rates so the end result is less powerful is more proportionate than currently stated in the DD
- Includes additional safeguards so that rates result in risk exposure closer to the stated aim, for either reducing the intended level of incentives or through the use of caps, collars and deadbands.

⁶² The average, median and upper quartile were higher (worse) in 2023/24 than at the end of AMP7.

⁶³ ANH_DD_063 PR24 performance commitments and ODIs

Our proposed refinements would result in a powerful but proportionate set of incentives that hold companies to account unless performance improves in AMP8.

The rest of this chapter discusses cross cutting elements of our representations on outcomes. We provide more detailed commentary on issues not captured in this chapter in the ANH_DD_017 Outcomes technical commentary document, including table commentary where relevant.

12.2 Overall calibration and skew

The current DD shifts the outcome regime away from a balanced framework to incentivise and reward companies for delivering performance improvements for customers and the environment into a penal regime where those who miss performance commitment levels (PCLs) are punished in perpetuity, regardless of newly revealed information about what the industry can deliver for the funding it receives. As currently calibrated, there is very little prospect of even the best companies earning any reward.

First Economics have been commissioned by Water UK to review the calibration of PCLs in the DD.⁶³ This work explores the DD in the context of company business plan proposals and the outturn in AMP7 where almost all companies are reporting net under performance against the PR19 PCs, despite overspending base allowances.

When reviewed against both industry forecasts of performance for AMP8 and performance in 2023/24 the expected penalties are sizeable. The figure below, taken from the First Economics report, shows the performance levels that each company targeted in their October 2023 business plans, runs that performance through Ofwat's Draft Determination, and identifies where there is:

- expected financial reward worth more than 25 bps of RORE = blue
- expected financial reward worth between 10 and 25 bps of RORE = green
- expected financial penalty or reward worth no more than +/- 10 bps of RORE = no shading
- expected financial penalty worth between 10 and 25 bps of RORE = amber
- expected financial penalty worth more than 25 bps of RORE = red

Figure 20 Expected 2025-30 financial out- and under-performance based on companies' business plan forecasts of performance

	WSI	CRI	WQ	ISF	ESF	BIO	OG W	OG WW	LEA	PCC	NHH	POL	SPL	DPC	BWQ	SOF	MRP	UNO	SCO	
ANH			Amber		Amber				Amber			Red			Amber					
WSH									Red		Green	Amber			Amber	Red				
HDD	Amber		Red			Blue	Amber			Red	Amber								Blue	
NES		Amber	Amber								Amber				Amber				Amber	
SVE								Amber						Amber						
SWB				Green								Amber								
SRN			Amber							Amber		Red			Amber	Red		Amber	Amber	
TMS				Amber	Red							Red								
UUW				Red	Green			Amber							Amber				Green	
WSX												Amber			Amber	Red	Amber		Amber	
YKY				Red	Green			Amber		Amber		Green				Red	Amber			Green
AFW				-	-			-		Amber		-			-	-				-
BRL			Red	-	-		Amber	-		Red		-			-	-		Amber		-
PRT				-	-			-		Red		-			-	-			Green	-
SEW	Red		Amber	-	-			-		Red		-		Amber	-	-	Red			-
SSC	Green		Green	-	-		Green	-		Green	Green	-			-	-				-
SES			Red	-	-			-				-			-	-			Blue	-

This view clearly shows more amber and red than blue and green, suggesting imbalance. We observe that for ourselves, despite Ofwat considering our business plan to be moderately ambitious in the round, that if we deliver performance in line with our plan the net penalty under the DD would be ~£300m. This doesn't appear to be an appropriate level of incentive for a company proposing moderate performance improvement.

The First Economics review of the outcomes in the DD concludes:⁶⁴

"In our opinion, this is not a balanced package."

The remainder of this chapter explores the causes of this imbalance and our proposed remedies.

64 First Economics, PR24: Performance Commitments and ODIs

65 Ofwat's approach to setting allowances for modelled base costs during AMP8 does not involve any similar type of baseline: Ofwat's econometric models can be used to produce "modelled costs" both for historical periods and forecast periods and there is an implicit, rather than explicit, assumption on modelled costs for 2024/25 that comes from the use of the econometric models to calculate allowances for AMP8.

12.3 Calibrating the AMP8 start point

For a number of common PCs, Ofwat's approach to setting PCLs is structured broadly as follows:

- Determine a 2024/25 "baseline" level of performance.
- Make an assessment of what performance improvements relative to that baseline to expect from companies by 2029/30 (i.e. the last year of AMP8), taking account of the opportunities for improvements from base expenditure and, where applicable enhancement expenditure
- Determine PCLs for each year of AMP8 by assuming a linear profile of improvement from the 2024/25 baseline

Under this approach, the determination of the 2024/25 baseline has a critical impact on the PCLs for each year of AMP8.

It is important to recognise at the outset that the role of the 2024/25 baseline reflects choices that Ofwat has made in deciding upon its approach to setting PCLs. The target set in PR19 is determining the baseline for PR24. Setting stretching PCLs is very difficult in the face of a range of factors including uncertain productivity gains, the impact of the weather and other factors such as climate change. The chance of misjudging the level of stretch is real, and industry performance against many PCLs in AMP7 suggests this has occurred. If this is assumed a priori to be the start point for PR24, the error in PR19 is repeated in PR24 and never corrected.⁶⁵

We have fundamental concerns with this approach to setting the baseline. It is not conceptually valid or evidence based. There is an urgent need for Ofwat to revise its approach so that it better reflects the latest information on companies' performance. Indeed, Ofwat said in its PR24 Final Methodology that it would use 2024/25 PCLs as the baseline position for PR24 PCLs "where applicable" but recognised that it "may be appropriate to adjust the baseline position for individual performance commitments in the case of material under or outperformance across the sector".

Incentives should be symmetric. There can be little doubt that, had the industry outperformed its targets to such an extent as it has in fact underperformed this period, Ofwat would recalibrate targets to take account of actual performance rather than simply extending the existing trend and allowing industry outperformance to continue from Year 1 of the new price control. Ofwat should recalibrate targets that are demonstrably too high or low.

Our response on the approach to setting the 2024/25 baseline is structured into the following sections:

- Calibrating performance expectations.
- Overview of information revealed during AMP7.
- Implications of information revealed during AMP7 for PR24 PCLs.
- A deeper dive into outturn performance versus PCLs for selected wastewater PCs.
- The need for a coherent package across PCLs and expenditure allowances.
- Ofwat's rationale for treating the AMP7 PCLs as a starting point for the 2024/25 baseline.

12.3.1 Calibrating performance expectations

As a guiding principle, we would expect Ofwat to set a package of PCLs for a given company such that the set of PCLs, taken together, would be reasonably achievable. This would include taking into account, where applicable, relevant factors such as the company's operating environment and the expenditure allowances for the period over which the PCLs apply.

We are not advocating an approach to the 2024/25 baseline for each company that looks to reset it, at each price review, to align with that company's most recent performance levels. To do so could adversely affect the incentives on companies to improve their performance over time (e.g. by increasing operational resources, investment that provides benefits over multiple price control periods, and/or trial-and-error processes of innovation in performance strategy and delivery) as it would limit the time period over which performance improvements can be expected to lead to positive ODI impacts.

Under the principle above, the PCLs would be set by reference to an assessment of what performance levels a notional or hypothetical efficient and well-run company could achieve. However, and critically, that assessment should be evidence based. For example, looking at the approach taken in other areas of the price review:

- In the Draft Determinations, Ofwat's cost assessment for base costs during AMP8 starts from evidence on the expenditure incurred by water companies, using econometric benchmarking models estimated using the most recently available data on outturn costs. Ofwat does not in any way set expenditure allowances for AMP8 by looking back at what level of expenditure it had assumed

at PR19 that efficient companies would incur in 2024/25 and rolling this forward into AMP8.

- Ofwat's approach to the cost of capital, and wider UK regulatory practice, is to use evidence from real-world companies to make an assessment of the financing costs of a notional efficient company (e.g. using estimates of the capital asset pricing model (CAPM) beta from market data on listed water companies or data on the cost of debt from industry benchmarks).⁶⁶

In contrast, Ofwat's use of the PCLs for 2024/25 that Ofwat itself set at the PR19 price review as the baseline used to calculate PCLs for AMP8 is not based on up-to-date evidence. Instead, it reflects a roll-over a set of previous regulatory assumptions that have been superseded by evidence of actual performance.

What is needed instead is a fresh assessment of the performance levels of a notional efficient and well-run company, by drawing on updated evidence on companies' actual performance (and changes over time in that performance) across the industry.

If any one company under-performs its PCL, it can be difficult to tell whether the PCL has been set at a level that is too demanding for a notional efficient company or whether the company is not operating efficiently and effectively in relation to that PC (or a mix of both).⁶⁷

This is part of the reason for a more industry-wide perspective (as far as possible): where under-performance relative to common PCLs is more widespread across the industry, it becomes less credible to argue that these PCLs would nonetheless be achievable by a notional efficient company.

We recognise that it may be difficult to decide which performance benchmarks to focus on, when using data on companies' actual performance to set regulatory assumptions for what a notional efficient company would achieve. For instance, Ofwat's cost assessment uses a mix of benchmarks (e.g. upper quartile for the triangulated costs across a set of base cost models and either the median or the predicted values from the econometric models for most of the individual benchmarking models for enhancement costs). We return to this issue later when we outline an alternative way to set 2024/25 baselines. At this stage our focus is on the need to look at recent outturn performance data across the industry when setting the baseline used to calculate AMP8 PCLs, rather than the details of how that is done.

As discussed further below, Ofwat's PR24 Final Methodology treated AMP7 PCLs as a starting point for the baseline and Ofwat said that it *"may be appropriate to adjust the baseline position for individual performance commitments in the case*

⁶⁶ The focus of the example here is the use of real-world data to inform on the financing costs of a notional company (leaving aside which data and methods are used to estimate the cost of capital and potential concerns with these).

⁶⁷ We note that unlike for cost assessment, there is no definition of the 'efficient' firm in terms of performance across all performance commitments.

of material under or outperformance across the sector”.⁶⁸ Ofwat also recognised in its Draft Determinations that it may need to make revisions to its baseline assumptions for Final Determinations, especially in the light of 2023/24 data (which was not available for its Draft Determinations). We believe the data now clearly demonstrates the need for such revisions.

12.3.2 Overview of information revealed during AMP7

We would hope that, at the time the PR19 Final Determinations were made, Ofwat (or the CMA where applicable) would have considered that the set of PCLs determined for each company for AMP7 would be reasonably achievable (with a fair balance between upside and downside risk) for a notional efficient company. This would be in light of the information reasonably available at the time and taking account of related aspects of the PR19 determinations such as base costs and enhancement cost allowances.

However, we see no reason why this historical view of what PCLs were appropriate to set for AMP7 should act as a constraint on the PCLs applying from the start of AMP8 regardless of how those PCLs fared against reality. Ofwat are understandably interested in the level of performance that customers have already funded. However the PR19 PCL reflects an ex-ante assumption made in the last price review about the level of performance funded. It is possible for this expected level of performance to be incorrect and so the next price review should take into account the latest data. If the industry has collectively failed to deliver performance against a PCL, then clearly the PCL was not funded by base costs. If the industry were strongly outperforming PCLs then Ofwat would likely take that newly revealed information about what is funded into account for setting PCLs at the next price review.

For the PR24 price review, it seems important to consider what we have learnt over the course of AMP7 rather than continuing to rely solely regulatory assumptions made five years ago.

There seems to be clear evidence that over the first four years of AMP7:

- Most companies have been unable to achieve the performance levels that Ofwat (or the CMA where applicable) assumed they could achieve when it made its

Final Determinations. Indeed for the common PCs, 16 out of 17 companies have a negative net ODI position across common PCs.

- Most companies have spent more on base expenditure than they were funded for, meaning that underperformance against PCLs cannot be attributed to a failure to incur the levels of expenditure funded by the PR19 final determinations.

Our AMP7 analysis is based on companies' outturn base expenditure and performance against common PCs for the first four years of AMP7 (using APR data) and companies' updated forecasts for 2024/25 from companies' PR24 business plans.

In relation to performance commitments, we examined companies' overall performance across the set of common PCs and captured this through their net ODI position across those PCs. In relation to base expenditure, we focused on a measure of base expenditure excluding unmodelled costs and enhancement expenditure relating to growth.⁶⁹ While Ofwat did not set explicit allowances for this measure of base expenditure, we estimated the PR19 implicit allowance for it by re-running Ofwat's PR19 models and triangulation approach with the same data as Ofwat used at PR19 but excluding growth-related expenditure.⁷⁰ We have not made adjustments for the labour RPE true-up mechanism for AMP7.

Using our approach, the two charts below show, on the horizontal axis, companies' net ODI position across common PCs over AMP7 (as a percentage of notional regulatory equity) and on the vertical axis their over/under-spend on base expenditure (as a percentage of our estimates of the implicit allowance for base expenditure set at PR19). The charts show that most companies have both over-spent and under-performed against ODIs (i.e. in the upper left quadrant):

⁶⁸ Ofwat (2022) Creating tomorrow, together: Our Final Methodology for PR24 Appendix 9 - Setting expenditure allowances, page 64.

⁶⁹ We were concerned that for the analysis here including growth-related expenditure might cloud the analysis due to differences between forecast and actual new connections and complexities arising from the PR19 developer serviced reconciliation mechanism.

⁷⁰ We drew on Ofwat's PR19 models and data, and those of the CMA's in the case of the four companies that appealed, to calculate the implicit allowance for the measure of costs we have focused on. We adjusted those implicit allowances to reflect relevant CAC and base adjustments made by Ofwat/CMA.

Figure 21 Overview of companies' AMP7 performance on common PCs and base costs: water

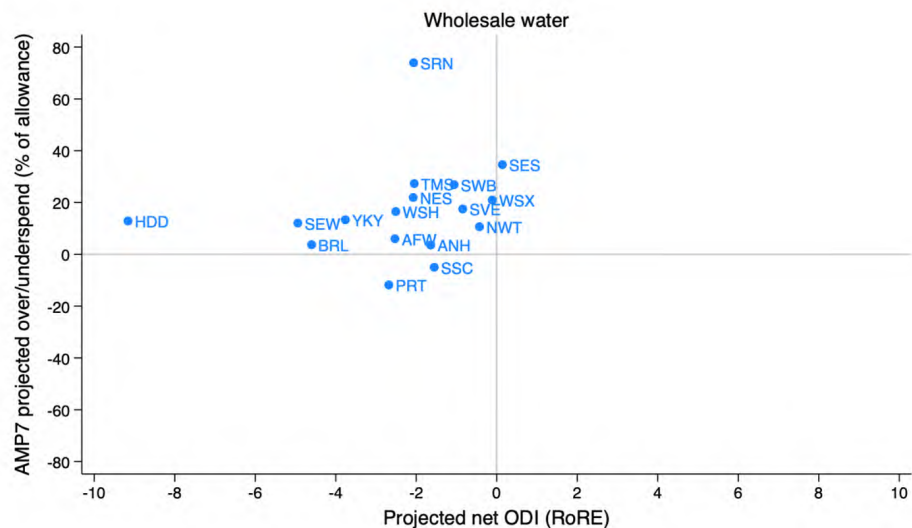
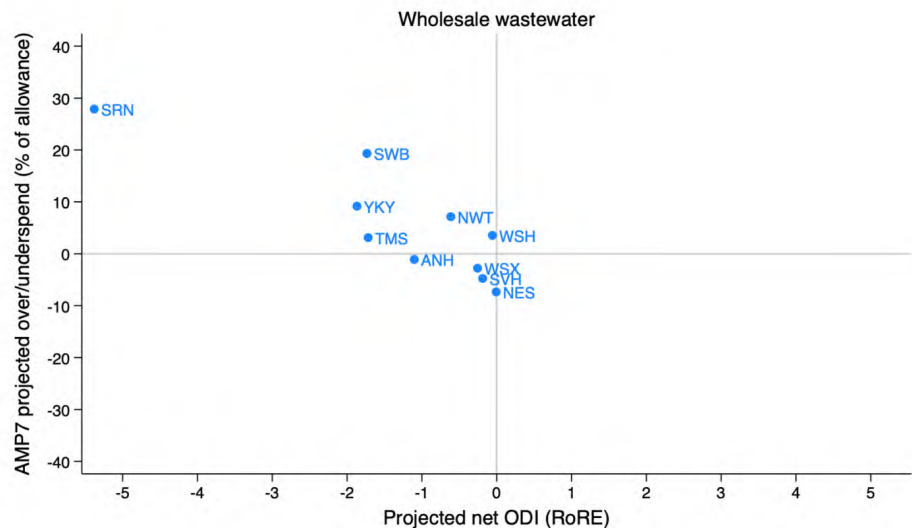
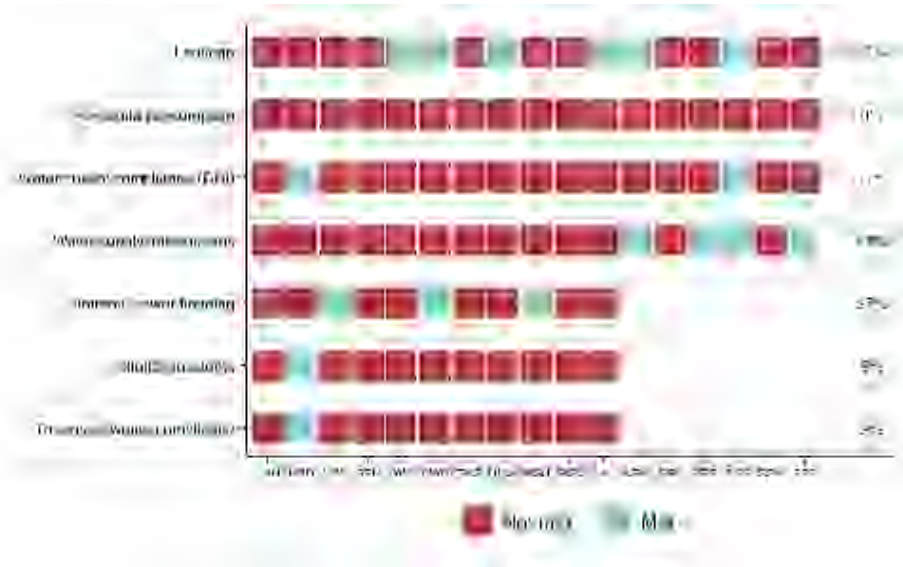


Figure 22 Overview of companies' AMP7 performance on common PCs and base costs: wastewater



Focussing specifically on 2023/24, reviewing performance for customer service and environmental common performance commitments it is clear that the majority of companies have been unable to meet their PCLs, suggesting excessive stretch:

Figure 23 Heatmap of 2023/24 performance for customer and environment PCs



This analysis shows:

- **Water common PCs:** All companies other than Sutton and East Surrey are projecting to have an overall negative ODI position over AMP7 on the set of Water common PCs. The average net ODI payment is equivalent to -2.5% on a RoRE basis. We note this is significantly greater than the P10 in Ofwat's PR19 risk analysis.⁷¹
- **Wastewater common PCs:** All companies are projected to be in a negative net ODI position over AMP7. On average across the industry, companies are projected over AMP7 to incur net ODI payments relating to wastewater common PCs equivalent to -1.2% of regulatory equity. The picture is similar focussing on the four years of outturn data for AMP7. For that period, the average net ODI position in the industry is equivalent to -1.1% of regulatory equity.
- **Wholesale water base expenditure:** We calculate the average projected over-spend over AMP7 to be equivalent to 17% of base cost allowances. Whilst there is considerable variation across companies, only two are projected to under-spend. The average level of overspend is slightly greater, 18%, when only

the years to 2023/24 are considered (i.e. focusing on outturn data only and excluding companies' projections for 2024/25).

- **Wholesale wastewater base expenditure:** Across the industry, the average overspend for AMP7 is projected to be 5% of allowances. The average over-spend is 7% across the years to 2023/24 for which outturn data are available.

12.3.3 Deep-dive into selected performance commitments

We are concerned that the approach to setting AMP8 PCL baselines in the Draft Determinations means:

- In cases where we have tended to perform relatively strongly compared to other companies in the past (e.g. internal sewer flooding and leakage) our baselines are set at levels that are both more demanding than we have achieved in recent years and more demanding than the baselines Ofwat is applying to other companies.
- In cases where we have performed less well in relative terms (e.g. total pollution incidents in recent years on the basis of Ofwat's chosen PC metric), our baselines are set on a common basis.

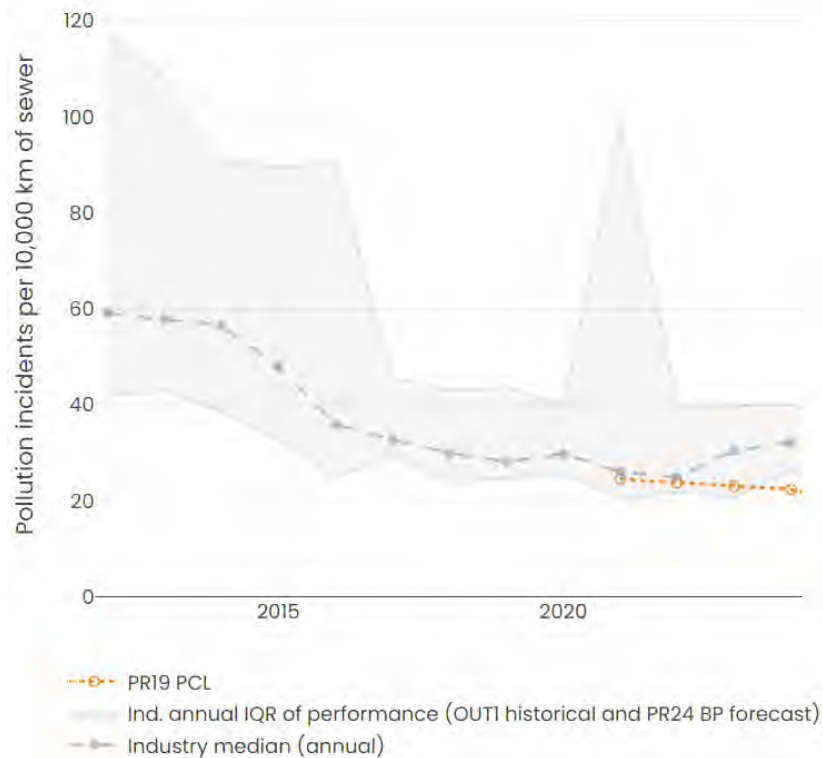
Overall, it seems that Ofwat's approach to the 2024/25 baseline sets particularly unrealistic targets for Anglian once AMP7 performance data is considered.

The analysis above has looked across common PCs. In this section we look in more detail at companies' performance against PCLs for two PCs for which the Draft Determination is of particular concern to us: total pollution events and external sewer flooding.

Starting with total pollution incidents, the chart below shows outturn performance within the industry over the ten-year period from 2013/2014 to 2023/24. It shows in the grey shaded area the interquartile range of performance across companies in each year, with the grey dashed line representing the median level of performance each year. The chart also shows in orange the PCL for AMP7 which was set on a common basic across companies at PR19:

71 Figure 3.6, PR19 final determinations: Aligning risk and return technical appendix.

Figure 24 Outturn performance for total pollution incidents versus AMP7 common PCLs

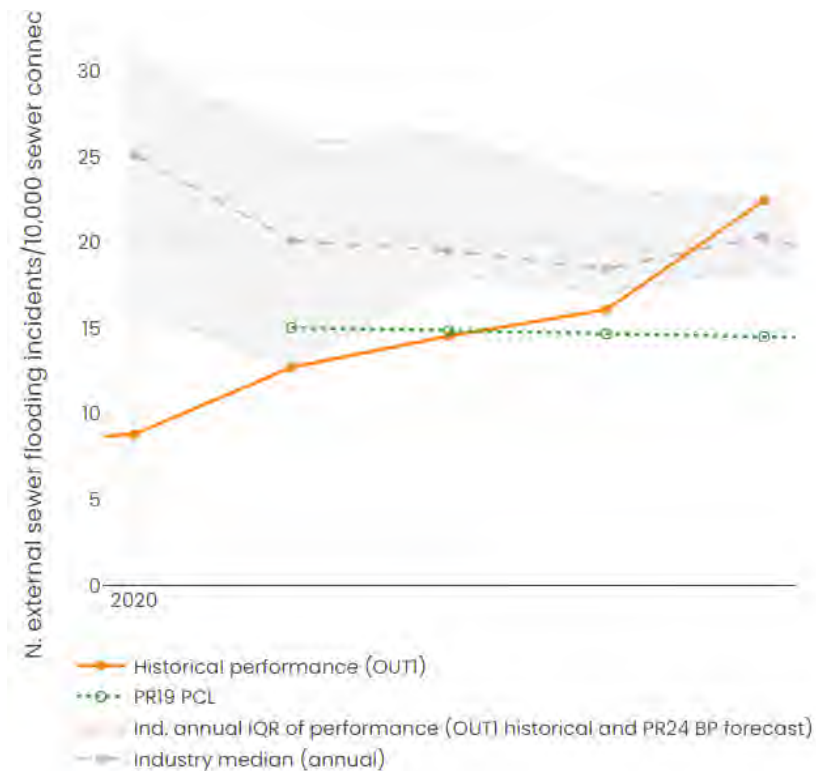


This demonstrates:

- While performance across the industry improved in the first five years of this period, neither the median nor upper quartile performance levels seem to have improved between 2019/20 and 2023/24.
- The PCL for AMP7 was set on the assumption of a rate of annual improvements that do not seem to have been achieved in practice.
- The PCL began close to median performance but a gap between the two has emerged over AMP7.
- In 2023/24 even the outturn upper quartile level of performance was not enough to achieve the PCL.

The PCL for external sewer flooding was not common at AMP7. Presenting the same analysis for external sewer flooding, the chart shows (dotted green line) the AMP7 PCL for Anglian and our outturn performance (orange line).

Figure 25 Outturn performance for external sewer flooding versus AMP7 PCLs for Anglian Water



This demonstrates:

- Neither the median nor upper quartile performance levels seem to have improved between 2014/15 and 2023/24.

- Our 2022/23 performance was significantly better than the upper quartile for that year but we faced a financial penalty given the demanding PCL set at PR19.
- For each of the last three years, our PCL was far more demanding than even the upper quartile level of performance in that year. Indeed, for external sewer flooding, our PCLs for AMP7 were more demanding than for other companies (around 20% more challenging than the median), which reflects in part our relatively strong historic performance in this area compared to others.

However, the latest evidence shows that Ofwat's approach to the baseline in 2024/25 for external sewer flooding for Anglian is particularly unrealistic. We would have had to have experienced 20% fewer flooding incidents than the upper quartile company in 2023/24 to achieve its PCL. We do not consider this level of stretch is justified, when setting a package of PCLs across a set of common PCs, to set our PCL for external sewer flooding using a 2024/25 baseline that looks far more demanding than recent levels of upper quartile performance.

12.3.4 Implications of information revealed during AMP7 for PR24 PCLs

It is difficult to escape the conclusion that with the benefit of hindsight the PCLs set for AMP7 have proven to be unachievable. We ask for Final Determination, Ofwat uses the information revealed by outturn AMP7 performance to set expectations for AMP8. This appears a reasonable approach and fits with established regulatory precedent.

The experience of AMP7 is that, across the industry, companies are incurring substantial financial penalties from under-performing against PCLs and over-spending against expenditure allowances. Insofar as these penalties concern costs and performance during the AMP7 period, this is part of the price control package that has been set for that period. But we see no justification for using the AMP7 PCLs as a starting point for AMP8, given the evidence and information revealed during AMP7.

In short, a proper analysis of AMP7 performance, using data for the period to 2023/24, will show to Ofwat that it needs to move away from the Draft Determination approach of using PR19 PCLs as the baselines from which PCLs for AMP8 are set. We have used this information to assess our forecast performance and proposed PCLs for AMP8. In certain areas (total pollution incidents, external sewer flooding & internal sewer flooding) we believe it is appropriate to reset the baseline and set a new PCL for AMP8.

While we consider that adverse weather conditions (compared to longer-term historical averages) have been a factor influencing performance against some PCLs, we have no reason to expect AMP8 to be any more benign than AMP7. Indeed, it could be worse and we have sought to quantify this for water recycling.⁷²

12.3.5 The need for coherence across PCLs and expenditure allowances

Even if Ofwat considers that the PCLs set at PR19 represent performance levels that are in some sense more appropriate or more desirable than what companies have achieved in practice during AMP7, there seem to be no evidential basis for thinking that these higher levels of performance would be funded by the base cost allowances that Ofwat has set in Draft Determinations.

Companies' outturn performance will reflect a range of factors, including the effectiveness and efficiency of the company's strategies to improve performance over time and the performance areas that they put greater focus on. But one key factor that affects performance in a given area is the expenditure incurred on operational activities and investment to support and improve performance in that area.

Ofwat's PR24 Final Determinations should provide for a coherent package across expenditure allowances and PCLs.

Ofwat's allowances for companies' base costs in AMP8 are based on econometric benchmarking models estimated using historical data, combined with adjustments for catch-up efficiency improvements.

Given this approach, information on companies' historical levels of performance is highly relevant to assessing the levels of performance that are consistent with these expenditure allowances.

To take an extreme and simplified example, suppose that Ofwat had set a PCL for water supply interruptions of 3 minutes per property at PR19, based on ambitious business plan forecasts of performance improvement from some companies. If in practice companies' performance over AMP7 had been in the range of 6 minutes to 90 minutes, it seems difficult to explain how companies could be reasonably expected to achieve 3 minutes at the start of AMP8 while incurring a level of expenditure consistent with what companies have spent over the last five years. It would be unreasonable to assert that customers have funded that level of performance when assumptions about potential productivity improvements are not realised. This is especially so if there is no evidence of a historical improvement trend in water supply interruptions that, if continued, would lead to 3 minutes at the start of AMP8.

72 see KPMG, The impact of climate change on key operational performance measures, page 20

Ofwat might consider that its approach to the 2024/25 baseline, and the PCLs for AMP8 more generally, is consistent with its base cost allowances on that basis some companies business plans' include proposed PCLs for AMP8 excluding any benefits from enhancements funded separately from base costs that are in line with Ofwat's Draft Determinations.

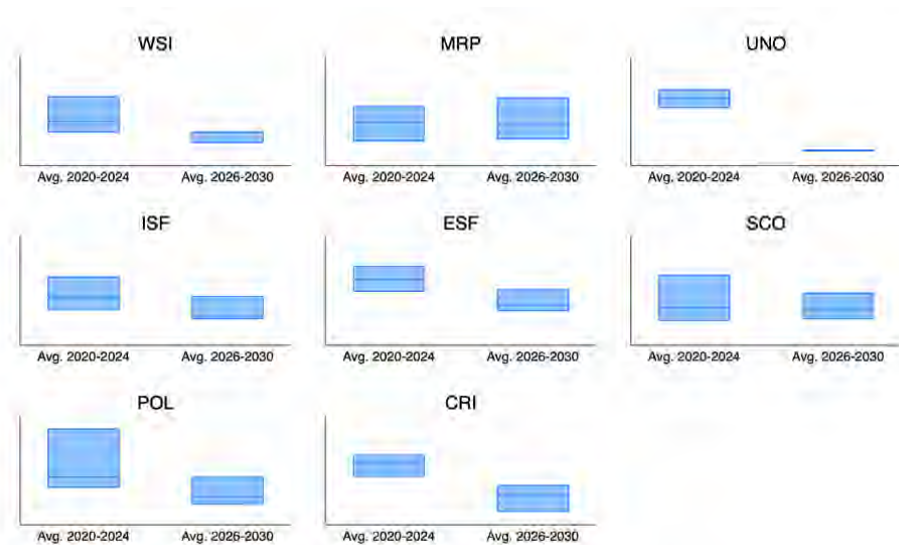
However, the AMP8 PCLs (or performance projections) in each company's business plan must be seen in the context of the proposals for base costs in those plans. Ofwat states in its Draft Determinations that its allowances for base cost (before frontier shift and RPEs) are on average 7% less than companies had proposed in their business plans, with six companies facing cuts of 10% or more.

Furthermore, the experience from AMP7 indicates the proposed performance levels from water companies' PR19 business plans turned out to generally over-estimate the performance levels they could achieve in practice. Against a background of complexity and uncertainty in projecting performance over a period of six or seven years, this finding may reflect in part the approach applied at PR14, and continued at PR24, of Ofwat providing financial rewards to companies whose plans Ofwat considers to be ambitious and financial penalties to plans that Ofwat considered to be unambitious.

Ofwat has suggested its targets for AMP7 are based median forecast performance. While Ofwat has suggested that this approach rather than using forecast upper quartile to set PCLs in the DD limits the stretch, the use of forecast medians which are incentivised to be ambitious as part of the wider incentives for ambitious business plans equates to a level of stretch comparable to the forecast upper quartile.

As companies have responded to the ambition incentives and anticipated that Ofwat would consider forecast upper quartile to be ambitious, we observe that the forecast median and upper quartile converge (see figure below).⁷³This means that in practice the level of stretch in AMP8 (baseline aside) imposed by the DD is similar to the level of stretch imposed at PR19, which as set out above has proven too stretching.

Figure 26 comparison of median (blue line middle of each plot) and upper quartile (blue line bottom of each plot) observed in AMP7 and forecast by the industry in AMP8



12.3.6 Ofwat's rationale for treating AMP7 PCLs as a starting point for the 2024/25 baseline

The concerns above about the use of AMP7 PCLs to set the baseline used to calculate PCLs for AMP8 echo comments made in response to Ofwat's consultation on its PR24 methodology. Ofwat reported that, in response to its draft methodology: "Several companies stated that PR19 PCLs should not be assumed as a baseline for PR24 performance improvements because they considered the PR19 final determination to be overly challenging".⁷⁴

We note that in their review of the level of stretch in the DD, undertaken for Water UK, First Economics⁷⁵ stated:

We view this [maintaining the PR19 PCLs as the baseline] as a form of extended punishment for a past collective failure to foresee during PR19 what the industry was capable of achieving with the cost allowances it was given, rather than a justifiable ongoing penalty for objectively poor performance

⁷³ In this figure the left hand plot shows actual distribution in AMP7 (avg. 2020-2024) while the right hand shows forecasts in business plans.

⁷⁴ Ofwat (2022) Creating tomorrow, together: Our final methodology for PR24 Appendix 9 - Setting expenditure allowances, page 56.

⁷⁵ ANH_DD_063

In its Final Methodology, Ofwat sought to defend its use of AMP7 PCLs for the 2024/25 baseline using several arguments. We reproduce Ofwat’s key arguments in the table below,⁷⁶ and briefly comment on why they do not justify this approach to the 2024/25 baseline, especially in the light of more recent performance data.

Table 11 Responses to Ofwat final methodology rationale for using AMP7 PCLs for the baseline

Ofwat statement in PR24 final methodology	Anglian Water summary response in light of updated information
<p>It was not in the best interests of customers and the environment to consider reducing the level of challenge at PR24 because companies are failing to improve from continued unacceptable levels of performance in some areas</p>	<p>We recognise concerns about customer and environmental performance across the industry.</p> <p>In general performance has been improving, but the key issues are what pace of improvement is reasonably achievable and what is a reasonable and realistic expectation for the level of performance at the start of AMP8 given the evidence on performance and the levels of funding provided under Ofwat’s regulatory framework.</p> <p>Where most companies across the sector have not met recent PCLs this casts doubt on the idea that the AMP7 PCLs were reasonably achievable by an efficient company.</p> <p>Further to the interests of customers and the environment, Ofwat’s final determinations at each review need to provide for a financeable price control package including a “fair bet” in terms of financial upside and downside for a notional efficient company (or if not to make an allowance for asymmetric risk).</p> <p>If Ofwat has good evidence that current levels of performance are unacceptable or inappropriate, then an alternative approach would be to retain the more challenging PCLs derived from the 2024/25 PCL baselines and provide companies with a corresponding increase in base cost or enhancement allowances to fund the performance improvements that an efficient company would need to make to achieve these PCLs.</p>
<p>The benefits of capital projects and improved ways of working should yield further benefits later in the 2020-25 period for companies delivering performance improvements</p>	<p>Ofwat made a prediction that companies would improve during the 2020-25 period due to the benefits of capital projects and improved ways of working.</p> <p>The extent of overall improvement is an empirical matter on which more data is available now than at the time of the PR24 Final Methodology.</p> <p>Companies have generally improved performance, but the data from the first four years of the 2020-25 period shows that this has not been sufficient for median companies to achieve PCLs for many common PCs.</p> <p>The latest evidence shows that benefits anticipated by Ofwat have not been enough to justify the use of the AMP7 PCLs for the 2024/25 baselines.</p> <p>Overall it appears companies are falling further behind.</p>
<p>Ofwat said it did not want to risk compensating individual companies for poor performance through customers paying twice for performance improvements</p>	<p>The evidence on over-spends during AMP7 presented above casts doubt on the view that companies have in practice been sufficiently funded to achieve performance levels consistent with the AMP7 PCLs, so we struggle to see how double funding would arise if PCLs for AMP8 are set by reference to performance levels observed during AMP7.</p> <p>We note that customers are already being compensated through the AMP7 framework (through underperformance payments) where performance is not in line with PCLs.</p> <p>We agree that Ofwat’s approach to PCLs should not compensate individual companies for poor performance.</p> <p>We recognise that aligning the 2024/25 baselines with each company’s own historical performance may risk a scenario where, for poorly performing companies, the AMP8 PCL reflects a lower level of performance than customers have funded and could be seen to unfairly compensate individual companies for poor performance - this is not the approach we advocate.</p> <p>Instead, we propose using industry-wide performance data (as far as applicable), to set the baseline used for AMP8 PCLs, which would avoid compensating poorly performing companies.</p>

76 Ofwat (2022) Creating tomorrow, together: Our final methodology for PR24 Appendix 9 - Setting expenditure allowances, pages 63 to 64.

Further to the points above, there is no sense in which Ofwat committed at the PR24 methodology stage to set the 2024/25 baseline using the AMP7 PCLs. It recognised that this should be reviewed in light of AMP7 performance data. Ofwat said that it would use 2024-25 PCLs as the baseline position for PR24 PCLs “where applicable” and recognised that it “*may be appropriate to adjust the baseline position for individual performance commitments in the case of material under or outperformance across the sector*”.⁷⁷

We agree with the symmetry Ofwat expressed between under and outperformance. We would not expect Ofwat to use the 2024/25 PCLs for the baseline to set AMP8 PCLs if companies had generally outperformed these PCLs during AMP7. Likewise we see no good basis for using the 2024/25 PCLs for the baseline to set AMP8 PCLs in a scenario where companies have generally under-performed against these PCLs.

Ofwat has planned to consider revising its PCLs in light of outturn performance data for 2023/24, especially where this differs from PR24 business plan forecasts:⁷⁸

“For all performance commitments, we will review our draft determination PCLs considering companies outturn performance for 2023-24, which companies must send to us by 15 July 2024. Where this significantly differs from the company PR24 business plan forecasts that we have used to set PR24 PCLs, we will consider making changes for our final determinations.”

In line with these Ofwat statements and reflecting the considerations in the subsections above, we consider it essential that, for its PR24 Final Determinations, Ofwat aligns its baseline assumptions for 2024/25 with the latest available evidence on outturn performance within the industry.

We discuss in the following section how this might be done in practice.

12.3.7 Proposed solution

For PCs where common, or converging on common levels of performance, are expected Ofwat should account for evidence that the AMP7 PCL is an inappropriate starting point for AMP8 and revise the baseline in the FD to reflect industry median in AMP7. This represents a fair bet at the start of the regulatory period and would create a balanced proposition for a group of companies to potentially earn a reward in AMP8 whilst others delivering low performance could expect to be incurring penalties.

We recognise it can be challenging to set appropriate PCLs ex ante. We made a proposal for comparative dynamic performance assessment to the Department for Business and Trade in response to their Smarter Regulation consultation (see ANH_DD_084 Comparative performance and incentives for the UK water industry)

⁷⁷ Ofwat (2022) Creating tomorrow, together: Our final methodology for PR24: Appendix 9 - Setting expenditure allowances, page 64.

⁷⁸ Ofwat (2024) PR24 Draft Determinations: Delivering outcomes for customers and the environment, page 16.

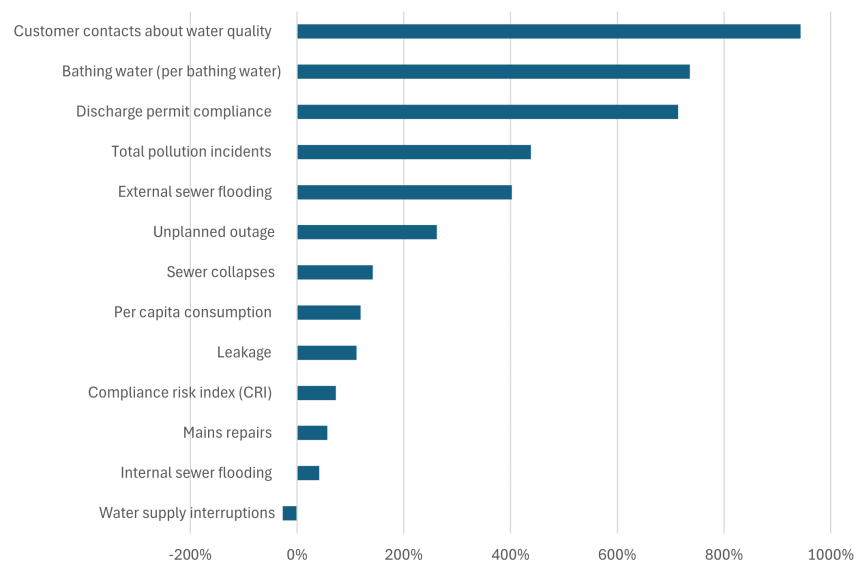
would remove the need to forecast the baseline and set specific targets for performance improvement. While these proposals were aimed at informing PR29, Ofwat could consider consulting on introducing these for some PCs at PR24. We believe water supply interruptions, internal sewer flooding and external sewer flooding are good candidates.

12.4 Ofwat's Draft Determination has mis-calibrated the ODI incentives

The Draft Determination has materially increased ODI rates and as a result introduced material penalty exposure on companies.

We view the incentives as too powerful overall. Particularly when assessed alongside the proposed PCLs. We note that on average the unit rate incentives in the DD are 308% higher than our PR19 FD. We show a comparison for each PC below. This seems to have been driven by Ofwat's centralisation of setting incentive rates. However, the proposed rates appear extreme in a number of cases:

Figure 27 Percentage change for ODI rates from PR19 FD to PR24 DD (accounting for inflation)



There are some targeted adjustments Ofwat could make that would materially recalibrate these incentives. We believe Ofwat should also go further and either constrain incentives with caps and collars or reduce the RoRE weighting of all PCs.

This section discusses cross cutting adjustments to incentives., but in the ANH_DD_017 Outcomes detailed commentary we make some additional suggestions for individual PCs, particularly where there are unintended interactions between WoCs and WaSCs.

12.4.1 Using a full set of performance data

We support Ofwat’s intention to include the 2023-24 data in the ODI rates analysis prior to the Final Determinations. We also support the same dataset being applied to the associated RoRE risk modelling.

We recognise that the 2023-24 dataset was not available in time for the Draft Determinations. Given that it is now available, it would be prudent and aligned with good practice to take this into account.⁷⁹

For some PCs, the uncertainty calculations use only three years of data, so seeing a further year increases the data used by 33%.

Given the uncertainty analysis calculates the variation in PC performance against target, we support using as much historic data as possible to take variation over time into account.

12.4.2 Exclusion of performance data should be by exception only

Our view is that data should only be excluded in extreme circumstances and fully justified. In the DD some of this data was excluded without explanation. In our view it is important for Ofwat to explicitly document and share any reasons for exclusion of data. For example the exclusion of:

- Business demand data after 2019-20
- Leakage, PCC and discharge permit compliance data for 22-23; and
- Bathing Water Quality after 2021.

The table below shows the variability from the performance range models with and without the excluded data as well as the impact on the rates.

This shows that the rates for the three water demand PCs are sensitive to the inclusion of this data. Discharge Permit compliance is not sensitive to the length of data.

Table 12 Variability of performance ranges and impact on rates

	DD variability, %	Variability with excluded data, %	Variability with excluded data and 2023-24 data, %	DD ODI rate, £m	ODI rate with excluded data, £m	ODI rate with excluded data and 2023-24 data, £m
Business Demand	10.9%	17.9%	N/a	0.254	0.155	N/a
Leakage	5.4%	6.6%	7.7%	0.909	0.738	0.635
PCC	8.9%	10.9%	10.7%	0.962	0.783	0.796
Discharge permit compliance	2.53%	2.50%	2.50%	12.854	12.998	12.998

12.4.3 Linking to AMP7 year 4 target instead of year 5

Ofwat's approach to setting incentive rates involves calculation of a performance range, using historical data, which is then applied to the 2024/25 PCL (or a proxy). As PCLs get tougher during AMP7, this approach artificially constrains performance ranges, in turn amplifying incentive rates using Ofwat’s novel method. We propose this approach should be revisited with performance ranges applied to the historical PCLs from which they were calculated.

The ODI calculation uses the historic performance variability (either the P10 or P90) applied to the PCL for 2024-25 to produce a performance range which is a key input used to calculate the initial ODI rate for each company. The initial ODI rate is calculated by dividing the amount of equity deemed to be at risk by this performance range.

Using the 2024-25 target to calculate the performance range input leads to a divergence between the historic performance data used to calculate the variability and the target to which it is applied.

Industry performance in AMP7 shows that efficient companies are struggling to meet these targets. These companies will refund customers for lower service levels through AMP7 ODIs and cost sharing rates.

⁷⁹ The NAO Principles of effective regulation guidelines state that 'it is important to have access to relevant, reliable and up-to-date data and information on what is happening in the regulated areas'. The NAO Principles of effective regulation guidelines [Principles of effective regulation A summary guide for regulators and policymakers \(nao.org.uk\)](https://www.nao.org.uk/publications/2022/principles-of-effective-regulation-a-summary-guide-for-regulators-and-policymakers)

The bias arises due to the divergence between target and performance an efficient company can reasonably be expected to achieve. As the targets for AMP7 were set five years previously, using this assumption in the calculation is not appropriate.

We are proposing that 2023-24 targets should be used instead of 2024-25 when setting ODI rates. Whilst this is a target, it is consistent with the actual empirical performance data that is used to calculate the variability. Applying the performance range to a future target where there is no information about how performance would transpire is not appropriate.

Table 13 Table - performance against PCLs in 2023/24

Performance commitment	2023-24 % companies that didn't meet target
Internal flooding	73%
External flooding	67%
Water quality contacts	44%
Compliance Risk Index	100%
Water supply interruptions	76%
Pollution incidents	91%
Discharge Permit Compliance	91%
Mains repair	18%
Unplanned outage	0%
Sewer collapses	18%

12.4.4 Summary of the impacts

The table below summarises the impact of including the 2023-24 data in the ODI rates. This demonstrates there is a material impact of reflecting the 2023/24 data which Ofwat should account for in setting Final Determinations.

Table 14 Summary of our proposed updates to incentive rates

	DD rate, £m	Rates with 2023-24 data added	Rates with 2023-24 plus year 4 baseline data added
Water supply interruptions	0.982	0.982	0.982
Compliance risk index (CRI)	1.590	1.383	1.383
Customer contacts about water quality	32.755	32.567	30.234 ¹
Internal sewer flooding	18.267	17.278	16.078
External sewer flooding	6.785	4.820	4.602 ²
Leakage	0.909	0.635	0.629
Per capita consumption	0.962	0.796	0.767
Business demand	0.254 ³	0.155 ³	0.156 ^{1,3}
Total pollution incidents	2.798	1.823	1.587
Serious pollution incidents	1.747	1.874	1.905
Discharge permit compliance	12.854	12.988	12.988
Mains repairs	0.297	0.297	0.297
Unplanned outage	5.602	5.486	4.766
Sewer collapses	6.497	6.518	6.287

¹ Based on year 4 company performance not PCL

² Partial update

³ Only includes data until 2022-23

12.4.5 Risk

The asymmetric risk created by Ofwat’s approach to setting PCLs and incentive rates is significant. This is exacerbated by the generic assumption that the efficient company will meet its performance commitment levels. This is captured in the 'PR24 Risk Analysis of a notional company report' by KPMG, which suggests that for the notional WaSC the risk range on ODIs is -3.68% to 0.08%.

We have reviewed Ofwat’s risk models for a sub-set of performance commitments—namely total pollution incidents and water supply interruptions. In both cases, there is strong evidence that the specific assumptions and data that have been used to calibrate Ofwat’s risk models underrepresent the scope for risk. When these inputs and assumptions are corrected to more accurately represent the historical period, these risk models imply a much larger range of risk than Ofwat’s intended risk exposure of between +/-0.4% of RoRE and +/- 0.6% of RoRE.

We make the following adjustments for the total pollution incidents and water supply interruption 5-year additive risk models.

- Update the input data in Ofwat’s risk model to include the 2023/24 year that was not available to Ofwat ahead of the draft determination for total pollution incidents and water supply interruptions.
- Correct for the arbitrary exclusion of South West Water from the assessment of total pollution incidents. Ofwat remove South West Water’s data from the total pollution incidents models as ‘Historically poor performance but significant improvements in 2022/23 provides good reason to consider their performance difference to PCL will be lower at the extreme ends going forward’.⁸⁰ This trend-based criterion for excluding data is not applied to any other companies or models, and moreover this trend is reversed in the latest 2023/24 data.
- Removing Hafren Dyfrdwy from the model for total pollution incidents. Ofwat removes Hafren from another wastewater model (sewer collapses) on the basis that the company is not reflective of the rest of the industry. With respect to total pollution incidents, Ofwat clearly state in other parts of their draft determination that performance for the rest of the industry cannot be applied to Hafren: “... for total pollution incidents and internal sewer flooding performance commitments, we are setting PCLs on a common basis. It is not appropriate to compare Hafren Dyfrdwy with normalised performance values from the rest of the sector, which are based on materially higher absolute numbers of incidents and significantly larger asset bases. As such, we exclude

Hafren Dyfrdwy from calculations of the common PCLs”.⁸¹ Finally, Hafren had a substantially more lenient target for total pollution incidents over the historical period (for example, the 2020-21 PCL for Hadren was 138 pollution incidents per 10,000km of sewer, compared to a target of 24.51 for every other company), against which it has outperformed considerably.

- Removing unrepresentative data on performance over AMP6 for total pollution incidents and water supply interruptions. For both measures, the PR14 PCL was based on a substantially less stretching PCL than either the historical PR19 or proposed PR24 PCLs. This is driven by Ofwat’s decision to base its PR14 PCL on (1) a glidepath from company-specific performance in 2014-15 (the year preceding AMP6) to (2) a target based on the historical performance achieved by the industry. This contrasts to PR19 and PR24, where the target is being set without a glidepath and without reference to historical performance.
- Removing data on this basis is consistent with Ofwat’s approach to external sewer flooding. For external sewer flooding it states that ‘Data prior to PR19 is excluded as an outlier. The level of stretch of the PCLs prior to PR19 is not representative of future PCLs. The difference between performance and the PCL is consistently greater than at PR19 and including this data would skew the performance range and would not represent realistic future performance range’.
- It is inconsistent to remove pre-PR19 data based on an unrepresentatively high level of stretch for some ODIs, and then retain pre-PR19 based on an unrepresentatively low level of stretch for others.
- Ofwat makes an ex-post adjustment to historical performance (relative to the contemporaneous PCL) such that its estimated P50 equals zero. This adjustment factor is not based on any empirical evidence (for example around industry trends), and effectively suppresses the scope for historical evidence of asymmetric performance to be reflected in PR24. We explore the impact of removing this, in combination with the change summarized above.
- Ofwat excludes Southern Water from its assessment of total pollution incidents risk, on the basis that ‘its performance reporting in PR19 includes spills from CSOs which does not match the PC definition. Performance and PCL are not calibrated to each other, leading to artificially high underperformance’.⁸² However, the Environment Agency’s guidance for pollution incidents explicitly states that these include ‘discharges or escapes of contaminants from water company sewerage assets, including: combined sewer overflows (CSOs)’, explicitly including spills from CSOs.⁸³ With respect to miscalibration between performance and PCL, as we note elsewhere, the PR24 PCL for total pollution incidents is set without reference to historical performance—being based on a

80 <https://www.ofwat.gov.uk/wp-content/uploads/2024/07/PR24-DD-ODI-risk-5-Year-Additive-Performance-Range-model.xlsx>, sheet: 'Coversheet'.

81 <https://www.ofwat.gov.uk/wp-content/uploads/2024/07/PR24-draft-determinations-Hafren-Dyfrdwy-Outcomes-appendix.pdf>, p. 3.

82 <https://www.ofwat.gov.uk/wp-content/uploads/2024/07/PR24-DD-ODI-risk-5-Year-Additive-Performance-Range-model.xlsx>, sheet: 'Coversheet'.

83 [https://www.gov.uk/government/publications/water-and-sewerage-companies-in-england-environmental-performance-report-2022/water-and-sewerage-companies-in-england-epa-metric-guide-for-2022#:~:text=Category%203%20incidents%20have%20a,extent%20\(area%20affected\)](https://www.gov.uk/government/publications/water-and-sewerage-companies-in-england-environmental-performance-report-2022/water-and-sewerage-companies-in-england-epa-metric-guide-for-2022#:~:text=Category%203%20incidents%20have%20a,extent%20(area%20affected))

30% reduction against a PCL that, as of the latest 2023/24 year of data none of the industry has met.

We set out the impact on the estimated risk ranges (on a RoRE basis) of reflecting these assumptions below—split into the following incremental steps. In all cases, they materially widen the risk ranges.

- We show the output from the Ofwat’s 5-year additive risk model for total pollution incidents/water supply interruptions, **Ofwat DD**.
- We show the output from the Ofwat’s 5-year additive risk model adding the extra year of data (23/24), and in the case of total pollution incidents adding South West Water and removing Hafren, **Changes (1)**.
- Next, we show the incremental impact of removing the unrepresentative AMP6 data from each model and removing the ex-post adjustment, **Changes (2)**.
- Finally we show the impact of adding Southern Water’s historical performance within the analysis for total pollution incidents, **Changes (3)**.

Figure 28 Total Pollution Incidents, 5-year additive risk model ranges (% of RoRE)

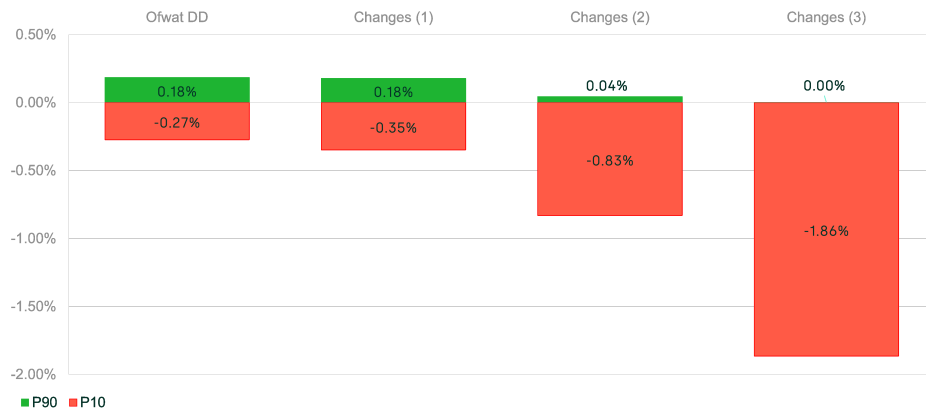
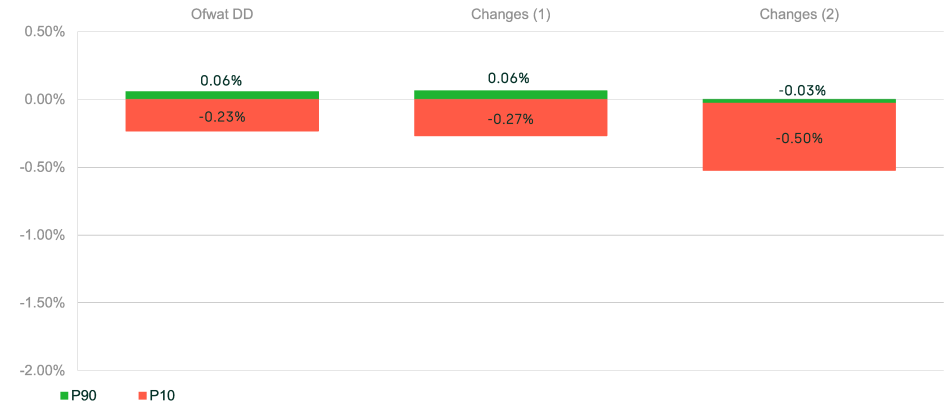


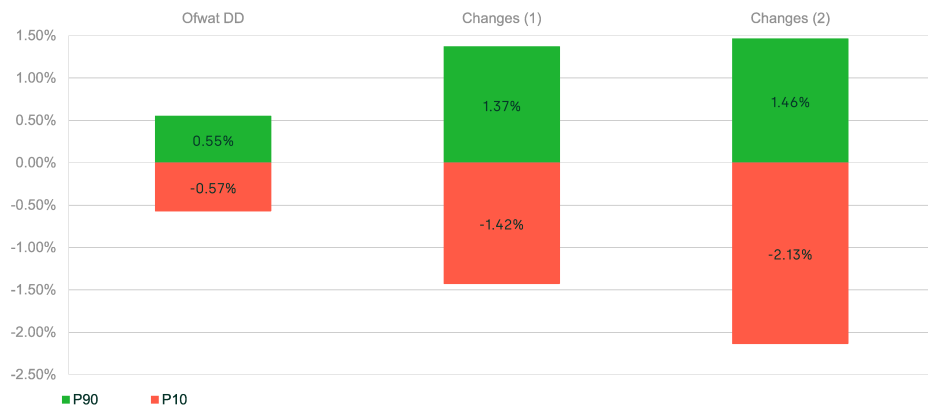
Figure 29 Water supply interruptions, five year additive risk model ranges (% of RoRE)



These adjustments to Ofwat’s risk model more realistically capture the scale of risk faced at PR24 - and demonstrate the sensitivity of the analysis is to the assumptions made. The scale of the risk on this performance commitment appears to be well in excess of Ofwat’s intent when setting incentive rates.

Finally, we present the same analysis using Ofwat’s Monte Carlo modelling for total pollution incidents, demonstrating the robustness of our when using this alternative approach to modelling risk.

Figure 30 Total pollution incidents, Monte Carlo risk modelling (% of RoRE)



We note a consistent result across the analysis of total pollution incidents that Ofwat’s risk modelling, adjusted for a more reflective set of input assumptions, indicates that Anglian could face risk exposure against this ODI up to 4 times greater than Ofwat’s intended risk range of +/-0.6% RoRE. This demonstrates the need to substantially reduce incentive rates to reflect a level of risk exposure commensurate with Ofwat’s methodology and intention.

12.4.6 Proposed solution

Ofwat intended to set incentives that reflect historic performance and imply a level of incentive between 0.4 to 0.6% of RoRE. However it appears in a number of areas the output of the incentive models (coupled with the overly stretching PCLs) results in far greater levels of risk than intended. Ofwat must reflect on the overall balance of incentives and reflect the latest performance data in the FD.

Overall we conclude that Ofwat has erred in the implementation of its intended level of incentives. Our proposed solution to this error is that Ofwat should introduce caps and collars for individual performance commitments that reflect the intended level of risk exposure. This would mean that ‘high’ priority PCs would be capped at 0.6% of RoRE, medium at 0.5% and low at 0.4%. Another solution could be to reduce the level of financial exposure, for example set the high priority PCs to be 0.4% of RoRE and the others at lower levels.

However Ofwat chooses to address this in Final Determinations they must show consistency in how they treat historical data as either representative, or not, fully justify any exclusions and check and ensure that the resultant levels of incentives and risk around those incentives is a consistent implementation of their stated policy intentions.

12.5 Water recycling

For several water recycling PCs our performance is not where we would like it to be. We have been working hard to remedy this and are committed to improving our performance. This includes working harder than ever to understand root causes and developing Environmental Protection Plans, of which we have developed over 400 since January 2024.

However it is also true that the industry collectively are struggling to meet the stretching PCLs set in AMP7 for total pollution incidents, internal sewer flooding and external sewer flooding (as shown in Figure 24). We propose that a reset of PCLs in these areas is appropriate, but this reset should ensure that companies worse than the median incur penalties until they can improve their performance.

12.5.1 The climate is changing and the future is different to the past

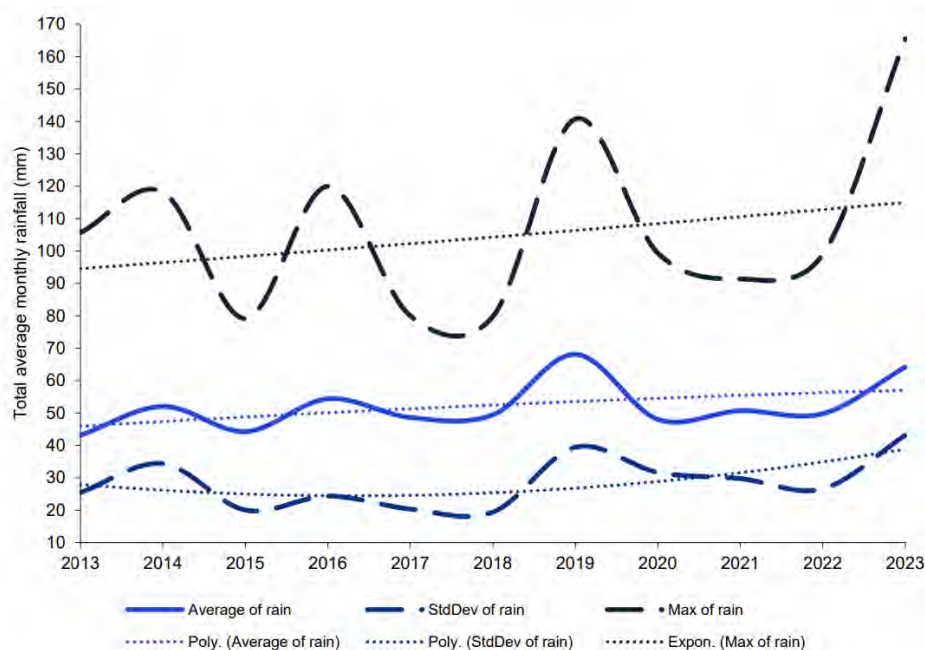
As part of developing our Water Resources Management Plan, Drainage and Wastewater Management Plan and Long Term Delivery Strategy we have been actively considering the future challenges facing our asset base. Our curiosity to understand and then adapt to these challenges was part of our proposal for investment to tackle climate vulnerability in our water networks. Since submitting our business plan we have continued to explore this topic, focusing on water recycling.

We commissioned KPMG to explore and analyse our root cause and climate data to understand future performance and the impact of factors outside of management control such as extreme weather and climate change.⁸⁴ There is a clear link between weather patterns and performance for flooding and pollution. They have found a strong correlation between rainfall and incidents caused by Hydraulic Overload (0.46 for total pollution incidents) and mechanical failure (0.3 for total pollution incidents). The evidence shows that changing weather patterns as observed in AMP7 are more likely in the future, with mean and maximum rainfall increasing materially since 2013. This is shown in the figure below, which presents three key rainfall metrics:

84 ANH_DD_064 The impact of climatechange on key operationalperformance measures.

1. Annual average monthly rainfall: This represents the mean rainfall for each month, averaged over the year, providing insight into long-term precipitation trends.
2. Annual standard deviation of monthly rainfall: This measures the variability in monthly rainfall within each year, highlighting the unpredictability of weather patterns.
3. Annual maximum of monthly rainfall: This indicates the highest monthly rainfall recorded each year, pointing to extreme weather events.

Figure 31 Historical evolution of total rainfall (mm) within our region



The analysis shows a material increase in the mean-expected rainfall, the maximum recorded rainfall, and the risk exposure (as measured by the standard deviation). These trends suggest that the impact of climate change has increased over the years, characterised by:

1. Increased mean and maximum rainfall: These increases indicate that both average and peak rainfall levels have risen, reflecting a greater volume of water

85 KPMG, The impact of climate change on key operational performance measures, page 20

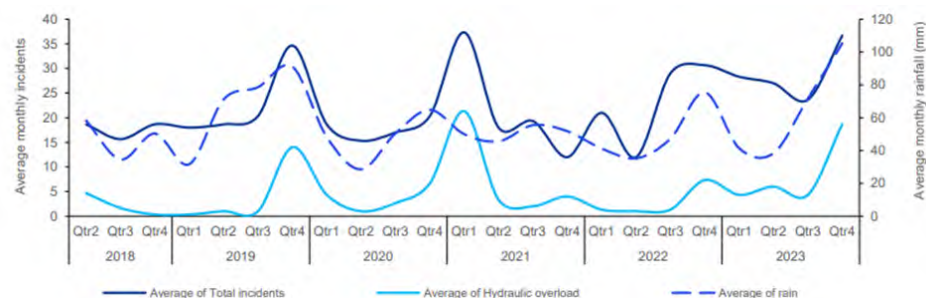
2. Higher variability in rainfall: The rise in standard deviation suggests more unpredictable rainfall patterns. This unpredictability could impact water management efforts, as it becomes harder to anticipate and prepare for extreme weather events, thus leads to deterioration in ODI performance.

Our observation is that while our region is comparatively dry, these extremes stress and overwhelm our asset base. KPMG's reported noted:

There is a strong correlation between rainfall peaks and surges in both total sewer flooding incidents and blockage incidents. This pattern indicates that increased rainfall is a critical common driver of these events.

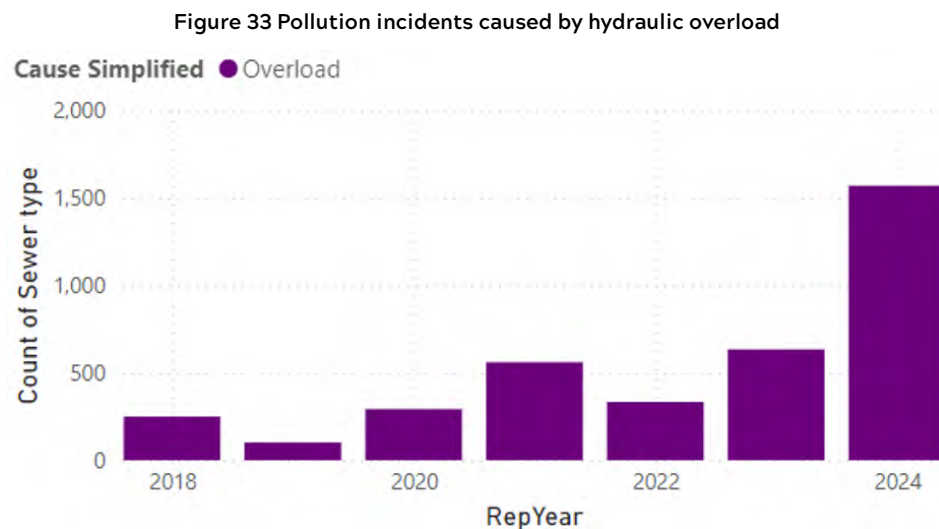
The most recent data shows a material increase in both rainfall and pollution incidents, indicating that the impact of climate change is becoming more pronounced. This rise in incidents correlates with increased rainfall, highlighting the stress placed on the water management infrastructure and therefore deterioration in performance.⁸⁵

Figure 32 Relationship between climate driver - rainfall - and pollution incidents



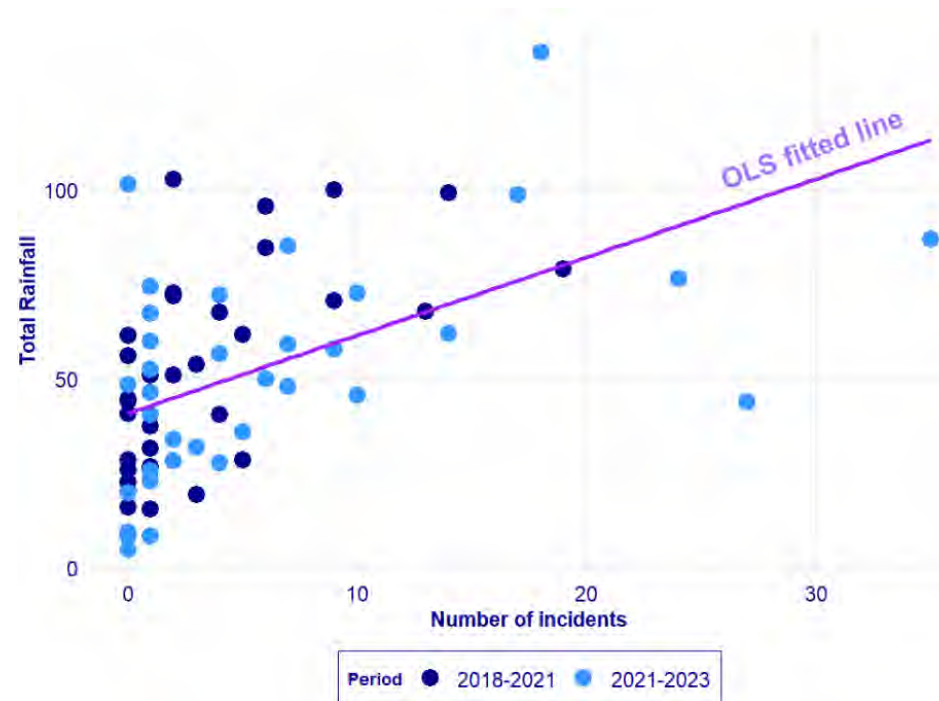
The analysis goes on to quantify that in AMP8, as many as 24% of total pollution incidents, 23% of external incidents and 13% of internal incidents will be attributable to climate change. The observed performance in AMP7 and analysis of climate change corroborates the conclusion of our DWMP that future performance will be under significant pressure.

The Met Office recently published a study that found climate change has influenced how much rain falls during autumn and winter storms. As climate change puts increasing pressure on the assets and leads to more Hydraulic Overload events (see chart below) our base cost allowances become more stretched as we try to tackle new challenges.⁸⁶



Our data suggests that pollution incidents driven by hydraulic overload are increasingly linked to elevated level of rainfall, which serves as a proxy for climate change. This pattern has already become evident during AMP7, indicating that the impacts of changing climate conditions are actively shaping operational risks. The figure below demonstrates the relationship between monthly hydraulic overload incidents and rainfall, with the light blue dots representing the most recent incidents since 2021.

Figure 34 The relationship between hydraulic overload risk and rainfall



There has been a significant increase in the number of hydraulic overload incidents in recent years. The data suggests that pollution incidents driven by hydraulic overload are increasingly linked to elevated level of rainfall, which serves as a proxy for climate change. This pattern has already become evident during AMP7, indicating that the impacts of changing climate conditions are actively shaping operational risks.

We are encouraged that Ofwat already recognise this challenge. Ofwat's resilience duty includes a requirement to 'secure that undertakers take steps for the purpose of enabling them to meet, in the long-term, the need for the supply of water and the provision of sewerage services to consumers' including by promoting 'appropriate long-term planning and investment'. Ofwat's third climate change adaptation report notes that external relationships and other factors could have

⁸⁶ Climate change drives increase in storm rainfall - Met Office

a significant impact on company performance.⁸⁷ This is particularly pertinent for the appropriate setting of performance expectations and cost allowances to meet these challenges.

12.5.2 Total pollution incidents

The EA's WISER expectations indicate a 30% reduction in AMP8 from the AMP7 PCL, with the EA noting:

"there may be some variation on our expectation depending on company performance during the current asset management plan period (2020 to 2025)"

These were proposed in 2022 in the context of improving industry performance in AMP6. We observe that in AMP7 the upper quartile and the average industry performance has degraded as of 2023/24. Ofwat's proposed PCL in the DD for AMP8 is effectively a 70% reduction in a single AMP.

We recognise that any pollution or spill is unacceptable. The EA have asserted that this is a statutory requirement. We believe further consideration is needed about how this requirement is funded and the relationship between cost and service. As noted earlier industry performance has stagnated in AMP7 for this performance commitment. However in AMP7 and in the DD for AMP8 Ofwat is providing no explicit funding for the industry to deliver this a step change in performance. We observe that other statutory requirements are usually associated with specific enhancement funding allowances.

In light of the industry's performance in AMP7 with no explicit funding to improve performance and in the face of a more challenging operating environment and stricter application of categorisation guidance the performance that can be expected by the industry in AMP8 needs to be revisited.

Regional factors impacting performance

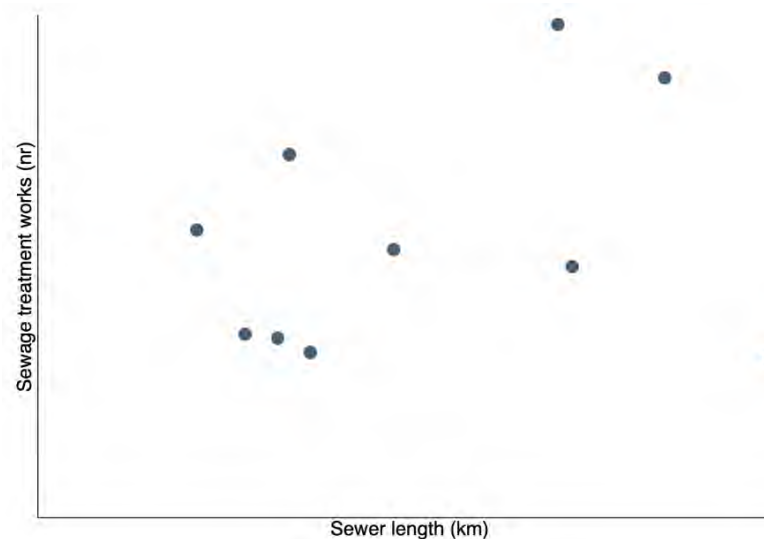
In its response to query OFW-IBQ-ANH-031 Ofwat states that "We see no reason why there should be differences in performance levels between companies." In our Business Plan we provided evidence which shows clear reasons for differences in performance across companies, given the way that performance is normalised for comparative purposes.

In our Business Plan we showed that category 1-3 pollution events do not just happen at sewers and that we have more non-sewer assets relative to sewer length than other companies. We also provided clear statistical evidence that benchmarking companies in a way that accounts for non-sewer assets as well as sewer assets better explains variation across companies than the simplistic per sewer normalisation. Ofwat's response to query 031 makes it clear that Ofwat has

not considered in detail the evidence provided. While Ofwat note that the Environment Agency's Environmental Performance Assessment looks at performance normalised by length of sewer, this does not stop Ofwat from setting PCLs that are appropriately calibrated to company operating regions. Indeed the PR24 DD proposes to do this for Hafren Dyfrdwy.

Ofwat's approach of relying on sewer length alone to standardise the number of incidents across companies might be reasonable if there were a high correlation between sewer length and STWs or the number of booster pumping stations - which, as shown earlier, are categories of assets that account for a substantial share of incidents - so that sewer length might be seen as a proxy for the number of those other assets. Such assumptions do not bear out. There is a low correlation between the length of sewers and the number of STW (the value is 0.25) and the correlation with the number of booster pumping stations is 0.80. The figure below shows a scatter of the number of STWs against length of sewers, illustrates the former.^{88 89}

Figure 35 Sewage treatment works and sewer length



⁸⁷ Ofwat's 3rd Climate Change Adaptation Report, page 15.

⁸⁸ Environment Agency, WISER24.

⁸⁹ Anglian Water Outcomes PR24 Data Table Commentary, Section 1.13

We believe that:

- For PR29 and AMP9, based on joint work between Ofwat and the EA and industry engagement, action is taken to address the clear deficiencies in the normalisation of performance across companies and to produce a refined PC metric that can reasonably be set on a common basis across companies.
- That as an interim measure for PR24, our PCL is adjusted upwards (as proposed in our BP submission) so that we are not held unfairly to a more demanding performance baseline than other companies.

Our solution

We are proposing revisions to these PCLs. Ofwat should note that our performance must significantly improve from 2023/24 for us to avoid penalty on these PCs under these proposals. We are not shying away from our ambition to improve performance, but reflecting latest industry trends and the impact of climate change the PCLs need to be reconsidered to represent a fair bet.

We are proposing that for these performance commitments, the 2024/25 baseline should be the industry median performance between 2012/22 and 2023/24, with a PCL that moves to the average upper quartile between 2012/22 and 2023/24 by the end of AMP8. This reflects a reasonable reset to where the industry as a whole is performing (and significantly more stretching than the sector average) and requires the industry to improve performance beyond what the best companies are currently delivering. This would result in the following PCLs:

Table 15

PC	Units	2025-26	2026-27	2027-28	2028-29	2029-30
External Sewer Flooding	No. 10k connections	19.0	18.7	18.5	18.3	18.0
Internal Sewer Flooding	No. 10k connections	1.7	1.6	1.5	1.5	1.4
Total Pollution Incidents	No. 10k sewer	26.2	25.5	24.9	24.3	23.6

In order to meet these proposed PCLs in 2025/26 we would have to improve performance by 19% for external sewer flooding, 24% for internal sewer flooding and 35% for total pollution incidents from 2023/24 performance.

Alongside this we would propose that outperformance deadbands are introduced between these new PCLs and those in Ofwat's DD. This would ensure companies that are already performing well do not significantly outperform the revised PCLs.

90 CMA (2021), 'Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited price determinations: Final report', 17 March, para. 8.2

12.6 Demand management and leakage

Demand management and tackling leakage are vital in water scarce regions, such as ours. We are concerned that Ofwat's approach to leakage in the DD is incoherent and results in a package that is toughest on the best performers.

We consider that:

- Ofwat appear to have misunderstood or mis-calculated the difference between our PR19 PCL (a 16.4% reduction from the 2019/20 baseline) and our business plan proposal (a 20.3% reduction). Ofwat have looked at single year leakage values but this is not our PCL. This error forms part of the rationale for Ofwat's rejection of our enhancement claim (discussed further in ANH_DD_021 Sustainable growth PR24 DD Representation enhancement strategy).
- It also appears that Ofwat have not reflected that our AMP7 ODI rate for leakage includes a cost recovery mechanism, which effectively means our outturn performance is the level that has been funded by customers.
- Ofwat rejects claims for expenditure from the top performing companies. However we present new cost modelling evidence that demonstrates a statistically significant relationship between leakage costs and both current performance and performance improvements. We compute the incremental cost allowances implied by this model for our updated proposed level of leakage, given an implicit allowance based on the performance of the companies assessed to be most cost efficient in treated water distribution. We identify leakage totex underfunding across base and enhancement of £100.8m-£195.4m, relative to these benchmark companies (excluding Thames).

12.6.1 Considering cost and performance in the round

We have considered base costs, enhancement costs of leakage performance collectively, rather than as individual components in isolation, with support from Oxera. As noted by the Competition and Markets Authority (CMA) in its redetermination of the PR19 Final Determination (FD),⁹⁰

We [the CMA] have treated leakage as a separate section due to the interaction of funding and outcome incentives in relation to reducing leakage...

This was reflected in the CMA's approach to providing funding allowances for base and enhancement leakage expenditure allowances, where these were based on companies' relative leakage performance. The link between performance and funding was also reflected in Ofwat's approach at PR19 prior to the CMA's redetermination.

- At the initial assessment of plans, Ofwat allocated 'companies a leakage reduction [i.e. enhancement] allowance where they are forecast to achieve

performance beyond upper quartile in 2024-25 or where they propose reductions in leakage greater than 15%'.⁹¹

- This was revised for the final determination stage, where Ofwat 'allow enhancement expenditure only for companies that forecast leakage performance beyond our [Ofwat's] threshold'.⁹²
- At the final determination stage, Ofwat also made provisions for additional base allowances for companies through its alternative base allowance, which included econometric cost models that explicitly accounted for the higher cost associated with maintaining high performance in leakage.

This approach to funding, which accounted for levels of performance, was combined with an additional base expenditure allowance for companies that received a materially higher allowance in an alternative model specification that accounted for leakage.

At both the PR19 FD and CMA redetermination, while companies with leading leakage performance received additional funding, they also faced a more demanding PCL relative to their peers—as this was based on companies making a 15% reduction relative to their starting position in the last years of AMP6. On a mains- or property-adjusted basis this led to companies such as Anglian facing a PCL requiring delivery of leakage levels 27%-44% lower (more challenging) than the average company.

The approach taken at the PR24 DD marks a considerable departure from the PR19 approach to leakage in terms of funding, while retaining the differential approach to performance targets. In particular, Ofwat effectively inverts its approach to funding:

... we only fund additional leakage reductions, beyond those set out in the 2019 price review. We fund the full additional leakage reduction over the 2025-30 period through leakage enhancement after accounting for savings from mains renewal and CSPL...

Ofwat distributes considerably more expenditure to the industry allowance on this basis, £547m at PR24, compared to £156m at PR19. The majority of these expenditure allowances are provided to companies with 2029/30 PCLs that are substantially behind the top performers on leakage such as ourselves (measured on both a leakage per property and per length of mains). For this approach to expenditure allowances and performance to be appropriate, the following assumptions would need to hold.

- That the PR19 company-specific PCLs represent a reasonable baseline for the level of performance that companies could have been expected to achieve.
- That a company maintaining its current leakage performance requires no additional funding, regardless of whether the company is performing at or behind the frontier of sectoral performance.
- That any improvements beyond the PR19 PCL require funding, regardless of where the company is positioned relative to the rest of the industry.

In Oxera's report,⁹³ they assess the validity of these assumptions in the context of the evidence from recent AMPs and statistical analysis of risk the relationship between cost and leakage performance. They also explore the degree to which the AMP7 ODI returns funding to customers and invalidates the PR19 PCL as an appropriate baseline for our performance. The report highlight three specific issues with Ofwat's approach that are detrimental to companies such as ourselves that are at the frontier of industry performance.

First, Ofwat's approach does not account for the Tier 1 ODI incentive rate applied to Anglian and other companies that were proposing to move the leakage frontier forward when evaluating company proposals for enhancement expenditure in AMP7. From the CMA redetermination:⁹⁴

[this penalty] is a clawback mechanism to ensure that consumers do not pay for quality improvements that do not materialise.

Ofwat's assessment does not adjust for the significant clawback of AMP7 enhancement expenditure when assessing companies' proposals for leakage performance at AMP8 relative to their PR19 PCLs. As we set out in more detail below (section 3.3.1), given Anglian's position the design of the clawback effectively means that Anglian has only been funded for the improvement in leakage it delivered in AMP7, rather than the ex-ante PCL. Therefore, when evaluating Anglian's enhancement proposals for AMP8, these should be considered to fund the difference between Anglian's current position and the proposed AMP8 PCL (17%).

Second, Ofwat rejects all claims for companies that are currently leading the sector to maintain their current performance levels. This reverses Ofwat's previous position at the PR19 FD and the CMA's in its redetermination of the PR19 FD. While Ofwat cites analysis from the new leakage costs dataset that 'suggests that maintaining lower leakage levels does not cost more', it does not provide sufficient detail on how this analysis has been undertaken and the robustness of the results.

91 Ofwat (2019), 'Technical appendix 2: Securing cost efficiency', January, p. 48, accessed on 15 August 2024 at: [technical appendix-2 Securing Cost- efficiency](#)

92 Ofwat (2019), 'PR19 final determinations: Securing cost efficiency technical appendix', December, p. 71, accessed on 15 August 2024 at: [Securing cost efficiency](#)

93 ANH_DD_065 Review of Ofwat's PR24 DD approach to leakage

94 CMA (2021), 'Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited price determinations: Final report', 17 March, para. 8.2, accessed on 15 August 2024 at: https://assets.publishing.service.gov.uk/media/60702370e90e076f5589bb8f/Final_Report_---_web_version_-_CMA.pdf.

Given its position that maintaining a higher level of performance does not incur additional costs, Ofwat then does not consider any need to evaluate whether the companies that constitute the cost benchmark have better or worse performance than the levels of leakage that we are expected to maintain. The average levels of leakage per 1,000 km of mains over the benchmark period of 2018-19 to 2022-23 for the five companies that form the benchmark on the relevant set of cost models (treated water distribution) range from 6.3-19.7ML/d/1,000km—relative to our performance of 4.8ML/d/1,000km over the same period.

Using the leakage costs dataset, Oxera present econometric evidence that demonstrates a statistically significant relationship between leakage costs and both current performance and performance improvements. They compute the incremental cost allowances implied by this model for Anglian's DD proposals, given an implicit allowance based on the performance of the companies assessed to be most cost efficient in treated water distribution. This identifies leakage totex underfunding across base and enhancement of £100.8m-£195.4m, relative to these benchmark companies (excluding Thames). By comparison, we submitted total expenditure proposals for £103m in additional funding in its PR24 business plan.

Third, Oxera highlight that Ofwat's approach to modelling the ODI risk we face with respect to leakage is biased towards understating the level of risk associated with this ODI, given the use of a historical data series entirely comprised of companies facing materially less stretching leakage PCLs. They show that if industry performance is evaluated relative to Anglian's PCL (normalised per length of mains), consistent with Ofwat's approach to setting PCLs for other ODIs (such as water supply interruptions, total pollution incidents and internal sewer flooding), using Ofwat's risk model, we show that this would imply a sizeable increase in the risk range around the ODI, which indicates risk exposure 10 times greater than the +/-0.6% maximum RoRE risk exposure target Ofwat has set for strategic ODIs such as leakage. While there may be some factors unaccounted for in this normalisation, Ofwat's risk analysis makes no adjustment for companies' ability to meet their historical PCLs. This analysis indicates the sensitivity of Ofwat's approach to assessing risk to its assumption that company PCLs are invariant to the level of performance that companies are improving from. We show evidence that companies at the performance frontier for leakage have tended to underperform against the leakage ODI over AMP7, relative to peers that faced less challenging targets on a normalised basis.

As highlighted above, Ofwat's DD outcome is highly sensitive to the assumption that the cost and risk associated with making leakage improvements is no more difficult for companies performing at the frontier of leakage performance. The evidence we present indicates that this is not the case, and therefore that Anglian's

leakage ODI and funding settlement at the PR24 DD does not adequately account for the higher costs associated with achieving and maintaining the sector-leading levels of leakage performance implied by the current PCL. This is detrimental to customers, as it creates a perverse incentive on companies at the performance frontier.

12.6.2 Reflecting the latest information in our demand management forecast

We have updated our demand forecast for leakage, PCC and non-household demand. We have adopted the same approach as applied for the WRMP24, but using our performance in 2023/24 as the baseline rather than 2021/22. This reflects the latest information and uses the same benefits for performance improvement from the WRMP24. We provide full commentary for this update alongside table CW7. This update has been assured by our technical assurance providers Jacobs.

Overall this new forecast results in a net reduction in distribution input (and hence environmental benefit) for most of AMP8. We feel this is particularly appropriate in the case of leakage where our AMP7 ODI returns the enhancement cost allowance to customers. In our view Ofwat's DD overlooks important and includes perverse outcomes, such as less funding and tougher targets for the best performers.

The expenditure we are requesting for demand management in our representations would enable us to deliver the forecast discussed above. This takes account of the funding we will be returning through the AMP7 ODI, cost sharing and that we have overspent our allowance in AMP7.

12.6.3 Looking forward - the future role of smart metering data

The sector is investing in a material smart metering programme. Reviewing companies' AMP8 plans - the sector is forecasting upgrading 7.66m basic meters to smart meters. There are also a further 2.64m new meters which we assume will be smart equating to a total of 10m smart meters in AMP8.

As a result of this investment, companies will have access to a significant volume of new data. We expect that this data could in the longer term have an impact on the sector's understanding of components of the water balance. Some aspects of this work has started within Anglian, but remains at an early stage. Further work will continue as the smart meter rollout continues.

We think it is important for companies and Ofwat to manage this transition given the potential impact on components of the water balance and the consequences for performance metrics for the sector such as leakage and PCC.

The transition to using smart meter data for be "in-flight" during AMP8 given the significant sector investment in smart meters during AMP8.

Ahead of the Final Determination, we propose that:

- Through the Industry leakage forum companies develop a roadmap for the transition to how smart meter data can be used in the calculation of the water balance; and
- Companies and Ofwat agree to an AMP8 timetable for implementing “shadow reporting” of the relevant water balance components informed by smart meter data.

Consistent with Ofwat’s preference⁹⁵ for consistent ODI definitions for the during of the reporting period (i.e. the whole of an AMP); we would propose that any changes to methodology arising from the use of smart meter data would be implemented from the start of AMP9 (i.e. from 2030).

12.6.4 Our Representations proposals

For leakage, we request that Ofwat:

- Allow our Leakage Improvements enhancement case in light of the AMP7 ODI clawback and new evidence we present in the ANH_DD_021 Sustainable growth PR24 DD Representation enhancement strategy,⁹⁶
- Allow our update cost adjustment claim in light of the cost modelling and other evidence we present,⁹⁷
- Accept our updated forecast for leakage, PCC and non-household demand that reflects the latest information but has been developed in line with the WRMP guidance and level of benefits associated with our planned demand strategy. This new forecast results in a net reduction in distribution input (and hence environmental benefit) for most of AMP8.⁹⁸

⁹⁵ PR24 Draft Determinations - Delivering outcomes for customers and the environment - section 6.4

⁹⁶ See Chapter 3 ANH_DD_021 Sustainable growth PR24 DD Representation enhancement strategy

⁹⁷ See ANH_DD_010 Leakage CAC

⁹⁸ See our OUT and CW5 tables.

12.7 Summary of our performance commitments Representations

The table below summarises our key issues with performance commitments in the

DD and our proposed remedy in the FD. It also references where the main discussion of each topic is. The most material issues are discussed earlier in this chapter, with the remaining issues discussed in ANH_DD_017 Outcomes detailed commentary.

Table 16 Summary of issues and remedies for performance commitments

Significance	Topic	Issue	Proposed remedy	Reference
Very high	Performance baseline and stretch	Approach leads to significant asymmetry even for strong performers	Account for 2024/25 and reset performance expectations in light of new information on performance that has been funded historically	ANH_DD_01 Chapter 12 Our commitments to customers
Very high	Incentives	Overly powerful	Reduce intended RoRE of incentives & cap individual PCs back to intended RoRE exposure Incorporate 2024/25 data Calculate performance ranges using 2024/25 PCLs	ANH_DD_01 Chapter 12 Our commitments to customers
Very high	Total pollution incidents	Unrealistic performance expectation	Reset baseline and PCLs in light of industry performance in AMP7	ANH_DD_01 Chapter 12 Our commitments to customers
Very high	External sewer flooding	Unrealistic performance expectation	Reset baseline and PCLs in light of industry performance in AMP7	ANH_DD_01 Chapter 12 Our commitments to customers
Very high	Internal sewer flooding	Unrealistic performance expectation Tougher expectation of us due to strong historic performance despite move to common PCL	Reset baseline and PCLs in light of industry performance in AMP7	ANH_DD_01 Chapter 12 Our commitments to customers
Very high	Leakage	Overlooking of cost recovery within AMP7 ODI	Baseline performance should be our outturn given AMP7 ODI Adopt updated forecast for leakage	ANH_DD_01 Chapter 12 Our commitments to customers
High	Discharge permit compliance	Inclusion of WoCs in rate calculation and relationship between permits and equity leads to unintended consequences and greater RoRE exposure for us than intended. Asymmetric risk, lack of total management control and inconsistency with EPA	Remove WoCs from calculations and resolve interactions between number of permits and equity to reduce unit rates Maintain AMP7 deadband	ANH_DD_017 Outcomes detailed commentary
High	Operational Greenhouse Gas Emissions (water recycling)	PCL ignores upwards pressure on performance Errors and double counting of benefits in setting PCL	Adopt our proposed PCL	ANH_DD_017 Outcomes detailed commentary

Significance	Topic	Issue	Proposed remedy	Reference
		Econometric models used to benchmark performance that miss key explanatory variables		
High	Bathing water quality	PCL doesn't reflect newly designated bathing waters Ofwat interventions lead to unrealistic performance expectation Factors outside of management control impact performance (particularly with inclusion of discountable samples)	Adopt our proposed PCL which accounts for newly designated bathing waters Apply a deadband	ANH_DD_017 Outcomes detailed commentary
High	Serious pollution incidents	Inclusion of WoCs in rate setting leads to unintended consequences	Remove WoCs, adjust proxy PCL and remove double count from calculations to reduce unit rates	ANH_DD_017 Outcomes detailed commentary
Medium	Water quality contacts	Incentive rate too powerful Impact of interconnectors delivering water from new sources to customers	Reduce incentive rate significantly Apply deadband proposed in our business plan	ANH_DD_017 Outcomes detailed commentary
Medium	Compliance risk index	Deadband does not adequately reflect impact of factors outside of our control nor reasonable balance of risk	Maintain AMP7 deadband	ANH_DD_017 Outcomes detailed commentary
Medium	Biodiversity	Error in PCL Unrealistic to set a common PCL	Revert to our business plan proposals	ANH_DD_017 Outcomes detailed commentary
Medium	Mains repairs	Interaction with proactive leakage detection	Apply deadband proposed in our business plan	ANH_DD_017 Outcomes detailed commentary
Medium	Lower carbon concrete assets	Reduced incentive rate Tougher PCL	Revert to our business plan proposals	ANH_DD_017 Outcomes detailed commentary

13 Dealing with uncertainty

Summary of our Representations

To address key uncertainties that remain in Ofwat's Draft Determinations and ensure consistency, we propose the following adjustments to Ofwat's Draft Determination mechanisms:

- In light of their inherent uncertainties (and the potential scale of these), the list of areas subject to 25:25 cost sharing should be extended to include our significant interconnector programme, the continuous river water quality monitoring programme and the costs incurred as a result of application of Waste Permitting Regulations (in addition to the IED) in bioresources.
- The scope of the loss of landbank Notified Item is too narrow as drafted to fully address the underlying risk and should be expanded to cover any trigger outside companies' control which might lead to a loss of landbank.
- The materiality threshold for additional costs sought under an IDOK should be assessed on the basis of price control turnover, rather than the turnover of the whole appointed business: This approach would reflect the changes in water regulation since the IDoK regulations were drafted in 1989 .
- The collective impact of Ofwat's end of period reconciliations is significant and will materially impact companies' cash flow. Specific to Anglian, the impact of the delay of cost recovery for our interconnector programme until AMP9 is particularly acute. We request Ofwat allows the proportion of remaining expenditure to be recovered from customers during AMP8.
- Some of the uncertainty mechanisms proposed by Ofwat should be reconciled in-period to offset the potentially significant cash flow challenges which will result from end-of-period reconciliation. Ofwat's proposed mechanism for addressing the energy costs alone leaves Anglian £175 million short of what we need to pay for energy in AMP8.
- Ofwat rejected our proposed uncertainty mechanism for boundary box replacement at Draft Determinations and we have therefore added this cost to our base plan and submitted an updated version of our cost adjustment claim to further explain and evidence this cost. We disagree that Ofwat's proposed smart metering allowance covers this; these costs

are exceptional, forward-looking and arise from the age of our assets, due to being a pioneer in water metering in the mid-1990s.

- We propose a new uncertainty mechanism to cover the risk that we are required to remove 'forever chemicals' (PFAS) from drinking water.
- The enforcement notices published for three wastewater investigations for consultation set out new standards that go beyond existing standards enforced by the Environment Agency. It is clear that the additional activity required to address these new standards could not be delivered solely in AMP8 and equates to a material programme of investigations and investment that is likely to span multiple AMPs. It remains a material uncertainty how the potential additional investment of this scale would be recovered from customers and over what time horizon.
- We need more detail on the operation of the third party services reconciliation mechanism to provide meaningful comments.

13.1 Introduction

The collective decisions made in a regulatory determination make up a risk and return package so that equity investors in an efficient company have a reasonable prospect of earning the base allowed return under the notional capital structure. Correctly calibrated, this package provides opportunities for equity investors to earn higher returns where companies outperform the cost and service benchmarks and lower returns from underperformance.

In its Risk and Return appendix Ofwat lists the features of its Draft Determination which contribute to what it considers to be a balanced risk package, including a number of targeted amendments.⁹⁹ We welcome a number of the new amendments that have been introduced (e.g. the expansion of different cost sharing rates for different types of expenditure and the wider use of real price effects). However, some remain insufficient and leave companies exposed to material risk. For example, most materially, the Notified Item covering loss of landbank and the wider approaches to dealing with risk associated with the development of Strategic Resource Options). Other proposals introduced as part of the Draft Determination without consultation, require correction - specifically Ofwat's proposed energy cost adjustment mechanism.

⁹⁹ 'PR24 draft determinations: Aligning risk and return', Ofwat July 2024, page 8

In this section we discuss the targeted amendments that have been proposed and suggested improvements required to achieve the correct overall risk-return balance.

In Chapter 14 Risk and Return we offer our comments on the overall risk-return balance, having assessed all factors in the round as a package. We present a range of evidence to conclude that a fair balance has not yet been achieved.

13.2 Cost sharing

We agree that the setting of cost sharing rates is a reasonable and proportionate mechanism for addressing differences in cost certainty between different types of expenditure. In section 14 Risk and Return we identify changes to cost sharing rates as one of the options that could be employed to reduce the material downside risk in the Draft Determination package.

We agree that it is appropriate to apply 25:25 cost sharing to expenditure areas where there is potentially high cost uncertainty. Several of our major investment programmes entail new technologies or are still subject to decisions about scale and scope and therefore warrant a different approach. In light of their inherent uncertainties, and to ensure consistency, we request that Ofwat also applies the 25:25 cost sharing rate to the following areas:

- The interconnector programme
- The continuous river water quality monitoring programme (CRWQM)
- Costs incurred as a result of application of Waste Permitting Regulations in bioresources (in addition to the IED).

Interconnector programme: The proposal to apply a 25:25 cost sharing rate to large non-complex schemes has been informed by our experience in delivering our very large AMP7 interconnector programme. A number of senior Ofwat leaders have attended the site to observe progress on this programme and have learned of the factors - most of which are outside our control - that have caused us to fall years behind our planned delivery timetable and overspend our allowance by hundreds of millions of pounds.

A number of large schemes proposed by the industry for the 2025-30 period, and proposed by Ofwat for special regulatory treatment, share the characteristics of our interconnector programme. Therefore, and to ensure consistency, we request that Ofwat applies the 25:25 rate to the expenditure incurred during AMP8 for the completion of our AMP7 interconnector programme in addition to the two schemes from our AMP8 programme that are currently subject to the 25:25 sharing rate.

The continuous river water quality monitoring (CRWQM) programme: We note the list of schemes to be treated as 'enhanced engagement' major projects identified in the Draft Determination. Ofwat's main criteria for eligible schemes is where cost certainty is low. Within the list of schemes, the lowest value of totex is £47.9 million. CRWQMs are a completely new asset type for the industry and, as explained in our Business Plan, there is significant cost uncertainty associated with the DEFRA technical specification, land purchase and planning requirements, power supplies, access rights, flood risk and legal issues with owning assets on the river bank and in the watercourse. Accordingly, we consider it appropriate for Ofwat to also class our CRWQM programme (at £78.1 million totex) as 'enhanced engagement' and to apply a 25:25 cost sharing rate to this programme.

13.3 Uncertainty in bioresources

Sources of uncertainty in bioresources include the potential loss of landbank for biosolids recycling and the need to comply with the requirements of the Industrial Emissions Directive and Waste Permitting Regulations. We set out below our views on how Ofwat can, and should, address these risks in the Final Determination.

13.3.1 Loss of landbank

In our business plan we identified the risks that could potentially lead to a reduction in the availability of agricultural land for the spreading of treated biosolids. We noted the very material impact this would have on our bioresources operations and the costs associated with developing bioresources strategies that were less dependent on the agricultural landbank. Since submitting our business plan, we have worked with other companies through Water UK to develop a Notified Item to cover the risks we face. The industry submitted its final proposal on this to Ofwat at the end of June 2024.¹⁰⁰

In its Draft Determination, Ofwat has proposed a Notified Item to enable companies to seek an interim determination (IDOK) in the event that there is a change in the law which does not directly affect water companies but that has the effect of reducing the landbank.

The Notified Item broadens somewhat the circumstances under which companies could seek an IDOK. However, companies have identified a number of risks, equally outside their control, which could potentially reduce the landbank in the same way as a legal change. Those risks are listed below:

- Defra Farming Rules for Water (FRfW) post-implementation review of the management of nutrients or use of organic materials to agriculture
- Change in or expiration of Defra's Statutory Guidance on the application of the Farming Rules for Water

100 See letter from Peter Simpson, on behalf of WaterUK, to Chris Walters, dated 25 June 2024

- EA Regulatory Position Statement with respect to the use of biosolids in agriculture
- EA changes in land spreading guidance impacting/relating to the biosolids supply chain to agriculture
- Policy statement by food chain actors relating to changes in requirements for the biosolids supply chain to agriculture (e.g. British Retail Consortium, supermarkets)
- Policy statement by Farming quality assurance organisations relating to changes in requirements for the biosolids supply chain to agriculture (e.g. Red Tractor Assurance, Quality Meat Scotland)
- Outcome of a legal action such as a judicial review by an environmental pressure group such as Fighting Dirty or River Action
- Politician or media statement that creates doubt over the safe and sustainable use of biosolids to agriculture
- Change in guidance (e.g. AHDB's Nutrient Management Guide - RB209)
- Farm product exclusion clauses by a food user group (e.g. whisky distillers association)
- Landowners and farmers decide not to accept biosolids
- Legislation changes to adopt 'full' EPR requirements for Biosolids disposal as delivered by the EA sludge strategy

We are concerned that the current wording of the Notified Item set out in the Draft Determination fails to recognise the full range of potential triggers which continues to expose companies to material risk.

Therefore, for the Final Determination, we ask Ofwat to expand the scope of the Notified Item to reflect that the impact of landbank loss on companies' ability to spread treated biosolids is independent of the factor which has caused it and to cover the full range of potential (and non-controllable) risks.

Alongside representatives from other companies we attended a meeting with Ofwat on 23 July 2024 to discuss the landbank Notified Item where Ofwat expressed two further concerns. The first related to Ofwat's uncertainty about the extent to which compliance with Farming Rules for Water has already been funded through price controls. In response we set out the guidance companies had received from the Environment Agency for bioresources in the WINEP. The EA has subsequently agreed to provide greater detail to Ofwat so that Ofwat can reassure itself that customers will not be asked to pay twice for the same improvements.

Ofwat's second concern related to how it would objectively assess the extent of landbank loss if a company sought an IDOK. The companies are very clear that the landbank modelling carried out for the industry by Grieve Strategic and ADAS provides a sound basis for assessing any change in landbank availability. Ofwat

expressed uncertainty over the extent to which all stakeholders accepted the reliability of the modelling. Further meetings have taken place with Defra, Ofwat and the EA since the 23 July 2024 meeting with a view to securing agreement of all stakeholders that the Grieve / ADAS modelling can be used as the basis of an IDOK assessment. Arrangements are also in hand to establish a governance group, composed of representatives from the EA, NRW, Defra, Welsh Government, Ofwat and the companies, to oversee landbank modelling and ensure it provides data which reassures all stakeholders.

The proposal which the industry submitted to Ofwat on 25 June 2024 included a recommendation that the threshold which determines whether the additional costs sought under an IDOK are material should be assessed on the basis of bioresources turnover, not the turnover of the whole appointed business. This would then account for the changes that have taken place in the regulatory framework since the materiality rules were written in 1989. Ofwat made no reference to the materiality threshold in its Draft Determination and we urge Ofwat to take account of this important element of the proposal.

A copy of the industry proposals on the landbank Notified Item is included as an appendix to this section.

In summary, our representations on the loss of landbank uncertainty are that -

- The scope of the Notified Item should be expanded to cover any trigger outside companies' control which might lead to a loss of landbank
- We confirm that the investment required in the event of losing the landbank has not previously been funded in prior price controls
- We are confident that the landbank modelling which has been carried out for the industry by Grieve Strategic and ADAS provides a sound basis for assessing any change in landbank availability
- The materiality threshold for additional costs sought under an IDOK should be assessed on the basis of bioresources turnover, not the turnover of the whole appointed business.

13.3.2 Risks relating to the Industrial Emissions Directive and waste permitting

We agree that the uncertainty and scale of costs related to IED requirements should be recognised though some form of uncertainty mechanism. Ofwat's 25:25 cost sharing proposal seems appropriate.

We welcome this proposal from Ofwat and we agree it is an appropriate mechanism to manage on-going uncertainty in IED compliance requirements and costs. However, when considering Bioresources waste permitting requirements more broadly than the implications of the IED, there are further potential changes that

may drive material new investment requirements in the Bioresources sector. However, these are not addressed by Ofwat's Draft Determination proposals for

managing uncertainty. We present below a summary of the risks:

Figure 36 Venn diagram showing the waste permitting uncertainties that we propose are managed through an enhanced 25:25 cost sharing mechanism



We present in a Venn diagram to summarise the risks.

Waste permitting requirements, outside the IED, continue to evolve and the industry risks iterative and ad hoc new requirements over the course of AMP8 in the absence of a clear regulatory timeline. As these requirements are not yet confirmed, companies have not included costs to address any potential requirements in their business plans.

Potential changes outside IED include, but are not limited to, the following:

- Waste exemption reforms: The Environment Agency proposals are not yet finalised and will be subject to consultation (postponed from May 2024). The latest government advice states that changes to the exemptions are likely to start in 2025 but timescales have not been finalised. Direct implications of the proposals are twofold.
 - Charging for exemptions: Significant elements of our bioresources business operate under registered waste exemptions (which negates the need to obtain a permit for those activities). The introduction of charging will introduce new costs into the Bioresources price control.
 - Prohibition of registering exemptions on a permitted site: Registered exemptions on a permitted site will be prohibited at the end of a 6-month transitional period. Sites which carry out a permitted activity (e.g. import waste to the inlet of a wastewater treatment works) will no longer be able to register an exemption for a different activity on the same site. By default, the currently 'exempt' activity e.g. physical-chemical sludge treatment, must now be incorporated within the site permit, if it occurs within the same operational boundary. This will require waste permit variations, but significantly for sludge treatment activities, the requirement for a permit makes compliance mandatory with Appropriate Measures guidance. Under a waste exemption, operators 'may refer to' Appropriate Measures standards however meeting these standards is not a legal requirement. In obtaining a waste permit the obligation to meet Appropriate Measures guidance becomes mandated through the permitting process.
- Environmental permit competence requirements: Changes to technically competent manager attendance requirements (resources qualified under a technical competency scheme e.g. WAMITAB4). A consultation on the proposed reforms closed in December 2023 and the output of the consultation is not yet available. The consultation proposed an increase to attendance hours currently undertaken by technically competent staff which may drive an increase in the required headcount to operate our sites.
- Appropriate Measures Guidance: Updates to Appropriate Measures Guidance are iterative and we have no timetable for updates to guidance. For example, 'the document Appropriate Measures for the Biological Treatment of Waste' was published in September 2022. There have been iterative updates and in

February 2024 new specifications were introduced for leak detection and repair (LDAR) monitoring. We expect further changes in guidance in AMP8 but the scope, scale and timing of those changes are unknown. The changes will impact sites permitted under the IED and non-IED permitted sites.

- Renewal of Regulatory Position Statements, such as RPS2315: The industry relies on this RPS to allow the storage and treatment of sewage sludge under an S3 or T21 waste exemption. RPS are time limited, and the latest government advice is "This RPS will be reviewed by 31 January 2024. You will need to check back then to see if it still applies." Should there be changes to the scope of Regulatory Position Statements this may drive further significant (but unknown) costs into the Bioresources operating model.

Under Ofwat's Draft Determination proposals, these costs, if not incurred directly as a result of IED permit requirements, would be managed by 50:50 cost sharing in the Bioresources price control. We do not consider that this effectively addresses the risk, as it fails to recognise the different regulatory framework within which Bioresources now operates, and the increased likelihood of changing requirements in AMP8.

We instead propose that the uncertainty in wider waste permitting risks is managed by broadening the scope of the enhanced cost sharing (25:25) for IED compliance to include equivalent risks at non-IED sites. We consider that enhanced cost sharing is the best approach to enable companies to invest in new and emerging waste permitting needs. Accordingly the 25:25 rate should also apply to new improvement conditions arising within waste permits, statutory guidance or the requirements to meet exemption criteria. This could be either as a variation to an existing permit (or exemption), or from the creation of a new permit.

This proposal has the general support of the industry as a whole.

13.4 Reconciliation of uncertainty mechanisms

In its Draft Determinations Ofwat has introduced a material suite of uncertainty mechanisms that will require reconciliation during or after the price control period. Some of these are listed below:

Table 17 Summary of when uncertainty mechanisms are reconciled

Uncertainty mechanism	Reconciliation timing
Performance commitments	In-period
Cost sharing	End of period
Energy RPE true-up	End of period

Uncertainty mechanism	Reconciliation timing
Materials, plant and equipment true-up	End of period
Labour RPE true-up	End of period
Non-delivery price control deliverables	End of period
Time incentive price control deliverables	In-period
Storm overflows uncertainty mechanism	End of period
Third party services uncertainty mechanism	End of period
Bioresources notified item	In-period
Large scheme gated process (for AW, Colchester reuse)	End of period
Cost of new debt true-up	End of period

It is striking from the above table that the majority of uncertainty mechanisms are reconciled at the end of the price control period.

The sums involved could be considerable. For example, we estimate our AMP8 expenditure on the Colchester reuse scheme to be about £100 million, while the mechanism proposed in the Draft Determination for treating energy costs will leave us £175 million short of our expenditure needs, on current market evidence. Completing our PR19 interconnector programme is estimated to include around £340 million of unfunded cost in AMP8, with a totex sharing true-up that would not occur until AMP9. This issue is explored further in the break-out box below.

Collectively, the sums attributable to reconciliation of the end of period uncertainty mechanisms could therefore total several hundred million pounds. Requiring companies to fund costs of this magnitude across a number of years could have material consequences on the financeability of their businesses, as well as causing unintended impacts from the proposed additional protections around financial resilience. These factors could artificially distort the incentive for companies to invest for the long term benefit of customers. The cost of financing sums of this magnitude has not been reflected in Ofwat's cost of capital calculations.

This problem could be reduced by allowing more expenditure ex-ante in the price controls. In addition, many of these mechanisms could be reconciled in-period as is the case for revenue and ODIs. This would significantly reduce the amount of debt and equity-funding companies would have to source and finance during the period. We envisage reconciliation could occur annually alongside the current

in-period determination process for ODIs. By reconciling annually, the end of period reconciliation would be substantially reduced, easing pressure on the business plan and final determination processes.

We recognise there are pros and cons with both in-period and end of period reconciliation. End of period reconciliation has a lower regulatory burden and reduces the risk of in-period bill volatility. In-period reconciliation reduces the risk of bigger bill shocks at the end of the period. Most importantly, it improves companies' financial resilience which is in the interests of customers and other stakeholders in the long run. On balance we consider the benefits of in-period reconciliation to be sufficiently substantial to outweigh any disbenefits.

We recognise that Ofwat will need to consider carefully which reconciliations could be performed in-period, identifying the pros and cons and resolving the practicalities of how in-period reconciliation adjustments would be applied within the price setting framework. At this stage we ask Ofwat to accept in principle that the potentially most significant reconciliations should be performed in-period and we offer to work with Ofwat between now and the Final Determination to determine how these might operate.

PR19 Interconnectors

We welcome the ongoing engagement with Ofwat on the delivery of our PR19 strategic interconnector programme and the reasonable approach to distinguish between non-delivery and late delivery in the DD.

Defining the need

The WRMP19 interconnectors form a critical part of our long-term plans for water security in the East of England. They transfer surplus water from the north of our supply area to areas that currently have lower levels of drought resilience and where abstraction licences need to be reduced to avoid the risk of environmental deterioration. They form part of an increasingly interconnected supply system, as set out in the 2024 WRMP.

The timeline to deliver our interconnectors by the end of AMP7 was driven by the combination of our voluntary commitment to cap all groundwater licences at 'peak max' level by 2025 and also responding to the expiry of time limited licences at the end of 2024.

Challenges we have faced

During AMP7 we have experienced an unprecedented set of events: a global pandemic, with the extensive 'lockdowns' delaying the early programme; a war in Ukraine that has impacted steel supplies; and significant planning delays, with responses exceeding the statutory times by up to 90 weeks in some cases. (Potable mains do not qualify for DCO status and so we have had to seek planning permission from 14 separate local authorities).

More recently, the series of storms crossing the UK during the winter of 2023/24 led to exceptionally high-water tables and meant that, despite our best endeavours, pipe laying was suspended until ground conditions dried out.

As noted by Ofwat in the Draft Determination, we appreciate that many of these factors have influenced delivery across the industry and the wider economy to varying degrees, but the impact on our interconnector programme has been particularly acute. The steel pipes, for example, were sourced from Mariupol, Ukraine, and the ground in which they are laid runs through the Fens, which is particularly susceptible to heavy rainfall given its soil type and low-lying topography. These effects go well beyond the general head-wind experienced by the economy at large.

Our commitment to delivering this programme and securing resilience water supplies whilst enhancing the environment is unwavering

We have now obtained the full set of planning approvals and have purchased all of the large scale diameter pipes to complete the programme.

Changes to our planned delivery timetable have been undertaken in discussion with the Environment Agency and these will deliver ahead of the Habitats Regulations deadline of 2030.

The resilience benefits accruing to our customers from the delivery of our interconnector programme are by their nature long-term, and there is therefore negligible impact on these benefits as a result of the delayed delivery.

Once completed, we will have delivered capacity in excess of that assumed at PR19.

Our ask of Ofwat

We have submitted the third-party assurance requested to evidence where we have taken an alternative approach and, as a result, delivered greater customer benefit in AMP7. This should reduce the penalty applied in AMP7 to around £5m for the one element that has not been delivered and where the benefit is now associated with an AMP8 scheme that we have included in our AMP8 totex request.

We are also pleased to see that the learning from our experience in delivering our AMP7 interconnector programme has influenced a change in approach to risk in AMP8 more widely for large and complex schemes, including the introduction of 25:25 totex sharing.

We remain fully committed to completing delivery of the remaining planned and funded AMP7 benefits in AMP8, alongside the new stages of this programme funded in AMP8. We anticipate this will entail around £340m of further totex in AMP8. Based on the AMP8 approach to cost sharing, we ultimately expect our shareholders to bear 25% of these costs through the AMP8 totex sharing regime.

However, the issue remains that this cost sharing true-up would not normally occur until AMP9, and we would therefore have to carry the material costs to equity and impacts on working capital in the meantime. Taken together with other parts of the DD which exert similar pressures in-period to be trued up at the end (non-trivial examples are energy and business rates), this constitutes a material risk to investability.

In our February 2024 Interconnectors submission, we requested that Ofwat allow us to recover the customer-funded share of this investment in AMP8 revenue rather than being true-up at the start of AMP9. Ofwat's Draft Determination does not allow additional AMP8 funding to be recovered for the completion of this and other similar schemes. Our proposals would not constitute additional funding nor involve the full amount of expected totex to deliver the schemes, but are a pragmatic step to bring forward an eventual true-up. Indeed, it is good regulatory practice to make ex-ante allowances for expected future costs on the best available information at the time, before trueing-up at a later period, rather than making no allowance and relying on a true-up to fully fund that cost.

We request that Ofwat adopts our proposal to align the partial recovery of costs aligned with the delivery programme for the remainder of these assets. Alternatives to this approach could be to allow companies to put forward totex plans afresh for the remaining activity from AMP7 as new AMP8 costs and potentially apply an alternative sharing rate to these costs. Ofwat might also consider whether any allowance could be made on a suitably conditional basis. Or finally Ofwat might change the timing of any true-up to reduce the delay between expenditure incurred recovery.

We would welcome further discussion with Ofwat on the proposed solution to resolve this material issue.

13.5 Uncertainty mechanisms

We set out below our comments on the uncertainty mechanisms that we proposed in our business plan and our responses to Ofwat's Draft Determination on each.

13.5.1 Energy uncertainty mechanism

We welcome Ofwat's draft decision to include an uncertainty mechanism to deal with market price volatility in the 2025-30 period but has important comments about the detail of the mechanism. We set these out in Chapter 6 Delivering cost efficiency - base. We also propose that this mechanism is one of the prime candidates for in-period rather than end of period reconciliation for the reasons set out in the previous section.

13.5.2 Boundary box uncertainty mechanism

During the 2025-30 period we anticipate having to replace a significant number of chambers that house water meters ('boundary boxes'). We are the first company to face this new maintenance risk exposure given we were a pioneer in water metering in the mid-1990s. By 2000, we had reached a meter penetration rate of 42 percent. This compared with a rate of the next highest company of 23 percent and an overall industry average (excluding Anglian) of 14 percent. In the early (May 2023) cost adjustment claim submission we included the costs of boundary box replacement as a potential cost adjustment claim. We asked that our AMP8 cost allowances included the exceptional and Anglian-specific expenditure of dealing with the failure of these assets.

Subsequently, in the Business Plan we removed the anticipated investment and withdrew the cost adjustment claim but proposed an alternative approach: that the cost of boundary box replacement should be recoverable via an uncertainty mechanism to allow, on an ex-post basis, the expenditure associated with the failure of the boundary boxes.

Ofwat's Draft Determination rejected this uncertainty mechanism. In PR24 Draft Determinations - Expenditure allowances¹⁰¹ the reason given is that the replacement of boundary boxes is already covered through the sector-wide metering cost adjustment. We have studied the model which calculated the sector-wide metering cost adjustment. The costs which feed the model do not include the costs of boundary box replacement. There is therefore no evidence that the Ofwat proposed meter cost adjustment sufficiently reflects the expenditure associated with the scale of boundary boxes replacements we are forecasting in AMP8.

In its response to our query OFW-IBQ-ANH-030 Ofwat referred to our response to the all-company query¹⁰² that requested a breakdown of metering costs submitted in PR24 business plans. Ofwat stated that 'this data informed our enhancement meter upgrades assessment, and subsequently our view of the efficient unit cost of replacement used in our base sector wide adjustment assessment at Draft Determinations. Based on this, the unit cost of replacements used in our Draft Determinations includes an allowance for the costs associated with the replacement of boundary boxes.'

¹⁰¹ PR24 Draft Determinations Expenditure Allowances, Ofwat, page 190

¹⁰² Query OFW-OBQ-ANH-055

In our response to the all-company query we stated that our planned meter upgrade costs of £88 million allowed for the replacement of 18,289 boundary boxes. However, the boundary boxes referred to in this response are new ones associated with the first-time installation of meters to properties, which are treated as enhancement. Our cost adjustment claim relates to the replacement of existing boundary boxes to properties which are already metered, which are part of base. None of the information provided by companies in response to query OFW-OBQ-ANH-055 could inform an assessment of the cost of boundary box replacement.

We expect that few other companies have included material numbers of boundary box replacements in their base cost plans. As explained above, this is a maintenance obligation that we face but that most companies have yet to encounter. These costs are forward-looking and arise from our current unique exposure to the failure of boundary boxes due to the age of our assets, as a result of early boundary box and meter installations.

In its response to query OFW-IBQ-ANH-030 Ofwat also said that boundary box replacements will be covered by the allowances made from the base cost models. This is incorrect. Firstly, the base models for water network plus include no variable that controls for differences between companies in meter penetration. Secondly, even if they did, expenditure during the modelled period is insufficient for the models to forecast boundary box replacement costs. Although we have incurred significant sums on boundary box replacement during the 2020-25 price control period, expenditure incurred by one company in a sub-set of the modelled years cannot be expected to deliver a sum in the modelled allowances that remunerates us for the expenditure we expect to make in 2025-30.

Ofwat also implied that, because we were expecting to deliver 146,613 boundary box replacements during the 2020-25 period from our wholesale water base modelled allowance, we should therefore be able to fund a comparable level of replacements in the 2025-30 period. This might be true if base cost allowances for each company were determined by rolling forward their historical expenditure but not true in the model-centred framework employed for PR24.

In summary, we disagree with Ofwat's assertions that the exceptional costs of boundary box replacements that we face in the 2025-30 period are allowed for via the base cost models or the sector-wide metering cost adjustment.

This is another example of how the PR24 process risks failing to engage with the forward-looking and material capital maintenance requirements companies face. These exposures cannot be identified from a cost assessment process that relies solely on historical expenditure patterns. Stakeholders, including the CMA, have supported the costs of such new obligations being adequately reflected in allowances, recognising thereby that the future is different from the past.

In light of this evidence, and Ofwat's rejection of our proposed uncertainty mechanism for boundary boxes in its Draft Determination, we have added the cost of boundary box replacement to our base expenditure plan and submitted an updated version of our cost adjustment claim, to evidence the proposed expenditure.

13.5.3 Inland bathing waters uncertainty mechanism

In our October 2023 business plan, we noted that eight sites in our region had applied to be designated as bathing waters. We confirmed that we had not included investment to achieve bathing water quality standards at these sites (or any other sites that might be designated during the 2025-30 period) and requested that any additional costs should be covered by an uncertainty mechanism.

In response, Ofwat said that the costs are immaterial, the risk is not unique to Anglian and the uncertainty may not be there at Final Determinations .

In May 2024 Defra designated as bathing waters three of the eight sites that we identified in our Business Plan: Manningtree Beach, Essex, the River Cam at Sheep's Green, Cambridge, and the River Stour at Friars Meadow, Sudbury. We have included the costs of these three bathing waters in our revised business plan.

We disagree with Ofwat's stated reasons for rejecting our proposed uncertainty mechanism. However, we note that some of the costs associated with the designation of further new bathing waters in our region could be covered by the storm overflows uncertainty mechanism and are therefore no longer pursuing this mechanism.

13.5.4 Loss of abstraction licence in Norfolk uncertainty mechanism

We proposed this uncertainty mechanism in our October 2023 business plan linked to the Environment Agency informing us that all of our groundwater abstraction licences in Norfolk were under review and could be revoked. Our response to losing the licensed volume in question in Norfolk would be to build a desalination plant at Bacton.

Since we submitted our business plan, Defra has confirmed its wish for us to proceed with the development of the potential Bacton scheme.

This scheme has been added to the list of Strategic Resource Options, with funding contingent on satisfactory progress through the RAPID gates, and the development costs of Bacton have been added to our plan. There is therefore no longer a requirement for this Notified Item. However, we note below the broader ongoing uncertainty relating to abstraction licence policy.

Per- and polyfluoroalkyl substances (PFAS) are manmade chemicals designed to be non-stick, waterproof and stain- and flame-resistant that have been linked to health problems, including certain cancers. PFAS are of potential significance to water companies due to their possible presence in drinking water, effluent discharges and biosolids. Regulatory positions around the world are evolving rapidly, with a trend towards increasingly stringent regulations. In the UK regulations have been developing since c.2004 but have seen rapid changes in the last four years, with updated guidance from the DWI expanding the scope of the previous guidance from two named compounds to 47 named compounds and reducing the concentrations at which specific actions are triggered. A 48th substance (6:2 fluorotelomer sulfonamide alkylbetaine (6:2 FTAB)) is to be added in January 2025.

There are multiple areas of uncertainty for water companies during AMP8 with regards to PFAS. For drinking water these include:

1. The possibility of further sites failing current PFAS guidance post-FD
2. The possibility of a post-FD tightening of PFAS standards that may require further, currently unaccounted for, investments
3. The addition of further compounds to the current recommended minimum suite in the DWI guidance, which may be present at higher concentrations than the existing PFAS suites, triggering Tier exceedances not anticipated based on existing information
4. Identification of new groups of PFAS with characteristics which may not be suitable for treatment by methods currently being developed
5. Changes to regulatory interpretation of existing regulation with respect to PFAS e.g. in the context of permitting where new permits such as for water treatment effluent may require additional compliance with stringent Environmental Quality Standards (EQS)
6. Expansion of the interpretation and implementation of chemical regulation with regard to the actions that water companies can take to implement change within their catchments, e.g. where a new PFAS source is identified.

For water recycling the risks include:

1. Potential for identification of new priority substances, and the introduction of new or revised EQS which will require consideration in new permits and permit review.
2. The possibility of existing very stringent EQS standards being applied to new discharge consents, including for effluent from the clean water treatment which would require additional treatment for compliance.
3. Expansion of the interpretation and implementation of existing regulations for operation of water recycling plants.

4. Expansion of the interpretation and implementation of chemical regulation with regard to the actions that water companies can take to manage trade effluents within their catchments.
5. Risk that the presence of PFAS impacts the acceptability of land spreading as the preferred recycling option for treated biosolids.

In our business plan we included £77m for addressing new PFAS requirements at 22 drinking water sites (15 surface water and 7 groundwater). Since October 2023 PFAS have been detected increasing to Tier 3 and Tier 2 in groundwater at an additional two sites, attracting a need for a further £44 million, which we have added to our plan in these representations. The pace of change regarding this issue, and the scale of potential expenditure that might be required, is sufficient to warrant the inclusion of an uncertainty mechanism that will enable companies to recover the costs of new obligations that arise during the 2025-30 period.

With ten other companies coordinated via WaterUK, we asked Jacobs to consider the nature of potential uncertainty mechanisms and have reviewed their proposals. Our preference is for a formulaic uncertainty mechanism in association with an end of period true-up (Jacobs proposed option 4). The features of this arrangement would be as follows:

- A formula which allowed a fixed unit cost of revenue for each MI/d of water subject to additional PFAS treatment during the price control period. The unit cost for drinking water used could be based on the modelled supply scheme costs for medium complexity from the PR24 enhancement feeder model. A separate unit cost would be required for water recycling treatment.
- In-period reconciliation of the mechanism to reflect new obligations delivered during the year.
- An end of period true-up to reflect observed efficient costs during the price control period. Where companies find novel ways to treat PFAS which results in lower unit costs, or are faced with more complex site specific issues resulting in greater unit costs, the true-up would capture this and ensure allowances are fair to companies and customers.

The advantages of our proposed mechanism are that:

- Drinking water quality risk is managed as quickly as possible so customers receive an improved service without having to wait for lengthy regulatory procedures
- Companies are remunerated in-period at a rate which - on the basis of current knowledge - at least approximates to the costs they are likely to incur
- Company financeability and financial resilience are not impacted by having to wait until the end of the period to recover unfunded investment, which could be substantial

- Risk is shared between companies and customers in the reconciliation, which trues up allowances to reflect the solutions developed and costs incurred during the period
- Incentives for companies to seek the most efficient means of PFAS compliance are preserved by calibrating the true-up on the most efficient cost observed in the sector.

Note that if our proposal for a revised notified item relating to loss of landbank for biosolids recycling is accepted the effect of new PFAS restrictions on bioresources could be excluded from the uncertainty mechanism we are proposing here.

The Jacobs' report ('PFAS uncertainty at PR24') is included as part of our Representations as ANH_DD_060.

13.6 There is significant Water Recycling investment uncertainty

13.6.1 Ofwat's Wastewater investigations

On 6 August 2024 Ofwat published for consultation the draft Notices to issue enforcement orders to three water and sewerage companies as part of the suite of ongoing investigations into companies' wastewater compliance. All water and sewerage companies are now subject to a live enforcement case.

The draft decisions and proposed financial penalties for the three companies are based on Ofwat's assessment of compliance in relation to a range of potential new compliance standards or triggers that vary from existing standards enforced by the Environment Agency ("EA") and the basis does not align with the previous approaches used. For example since 2018 companies have been required to identify storm overflows that need improvement by classifying them as either unsatisfactory, substandard or satisfactory. The EA's SOAF has then been used as the basis for investigating "problems caused by discharges from storm overflows considered to operate at too high a frequency" and to drive investment where appropriate (subject to application of the BTKNEEC test). As Ofwat is aware, in conjunction with obligations arising from the Storm Overflows Reduction Plan (as agreed with the EA) our AMP8 WINEP forms a key plank of our AMP8 enhancement programme.

The standards implied by the draft enforcement notices (if applied to all companies in the sector) generate material uncertainty and potential future expenditure requirements.

We have reviewed the notices and implied standards and have assessed the indicative potential triggers for investigation and impact to achieve compliance with these emerging standards:

Table 18 Indicative actions to comply with emerging standards

New legal standard	Description of standard	Impact	Assumptions affecting overall impact
<108% FFT	An asset fails to achieve 108% of the FFT level set out in its permit	Very high	Degree to which FFT, including increases in associated kit e.g. storm tanks, capacity should be increased to ensure compliance above current accepted error bands in flow monitoring
DWF Q80	An asset fails to achieve the Q80 DWF level	Medium	Highly dependent on whether this is single year (more expensive) or 3 in 5 years (still expensive but less so)
Storm tank requirement	6h DWF or EA approval of alternative	Medium to low	Would require site level investigations
Overflows >20 spills/yr	Annual spills exceed 20 spills per year - must be investigated & BATNEEC applied	Medium to high	Assuming SOAF style investigations, then heavily dependent on the % of sites that are considered cost beneficial under BATNEEC
EDMs <90% data availability	An event duration monitor is failing to accurately record data for at least 90% of any 12-month period	Very low	Assuming this relates to existing installations rather than new EO sites this is broadly a maintenance issue given 100% coverage
EO>1 spill/yr	An emergency overflow has discharged more than once in a year	Low	Heavily dependent on data resulting from new installation of EDMs on EOs after 2025
Failure of prior WINEP standard	If a WINEP investment has failed to meet a legal obligation	Low	Assume this is managed as per normal consent failures
Pollution incident	Reporting pollution incidents for DDS and FFT storm tank spills	Very low	Reporting requirement only

New legal standard	Description of standard	Impact	Assumptions affecting overall impact
Any dry day spills	Ofwat definition different to EA	Low	Extent to which these sites overlaps with >20 spills sites, EnvAct PR24 sites and any agreed Defra pilot sites into groundwater ingress

Assumptions:

- Very high = >£800 million and potential multi-AMP implementation
- High = >£500 million and <£800 million, potential multi-AMP implementation
- Medium = >£250 million and <£500 million, single AMP implementation
- Low = >£50 million and <£250 million, single AMP implementation
- Very low = <£50 million, one to two year implementation

Our high level range of costs associated with these is estimated as between £1.8 billion and £2.2 billion.

We have not yet fully checked how these investment drivers align with either our AMP8 plan nor the investment set out in our core pathway of our LTDS.

Whilst we assume that a proportion of these costs, such as those linked to overflows, could be recoverable via the Storm Overflows Uncertainty mechanism, this preliminary analysis demonstrates there is a material cost exposure should these standards be implemented for all companies in the sector.

There is a clear need to continue to invest to improve the environment for the long term. The underlying principles are set out in Drainage and Wastewater Management plan (DWMP) methodologies. Central to these is the emphasis on a clear understanding of agreeing triggers for investigation and ultimately investment which contributes to long term improvement as set out in the LTDS and DWMP.

We note that the enforcement notices introduce material uncertainty in terms of the timing of potential triggers for investigation and the need for investment to achieve these new standards. These are set out by means of a number of “requirements” which mandate the production of a series of plans.

It is unclear over what time horizon the necessary investment must be delivered. However, it is already apparent to us that the additional activity required to address these new standards could not be delivered solely in AMP8 and equates to a programme which is likely to span multiple AMPs.

It remains a material uncertainty how the potential additional investment of this scale would be recovered from customers and over what time horizon. This will require close working with companies, the EA and Ofwat to ensure that affordability and deliverability considerations are managed given the scale of existing statutory requirements.

13.6.2 Thurne section 101A scheme

In our October business plan we included those first time sewerage applications where we had accepted a duty under the Water Industry Act. Since then, the Environment Agency has upheld an appeal for a further application at Thurne in the Norfolk Broads. This application was assessed in 2016 and initially rejected on the grounds of insufficient environmental benefit at the 60 properties given the estimated £35 million cost of the new assets. This is not unusual. We have many applications where feasibility studies have reached this conclusion. At this stage, with the outcome of the appeal only known late in the DD window, we have not included the costs of this scheme in our PR24 plan and will consider next steps, including further legal processes.

The scale of this expenditure risk will need to be reflected in the Final Determination; either through an ex-ante allowance or the ability to recover this expenditure should it be incurred.

13.7 Further loss of abstraction licences

We comment above on the removal of uncertainty as a result of Defra's direction for us to proceed with the Bacton desalination plant. There could still be substantial developments in water abstraction policy during the 2025-30 period, with material implications for investment need. We note the material uncertainty that remains in this area.

13.8 Storm overflows uncertainty mechanism

We welcome this proposed mechanism. As noted in our enhancement strategy document ANH_DD_018 Resilient to flood, our understanding of the climate science involved in sizing storage tanks to achieve the Environment Act Targets is still evolving, and so protection in the event that storage volumes are required to be larger than forecast is sensible. The mechanism may also help where additional inland bathing waters are designated during AMP8.

13.9 Third party services reconciliation mechanism

We note Ofwat's proposal to reconcile companies' efficient third party services costs to their outturn levels of activity and revenue. There is insufficient detail in the Draft Determination about how this mechanism will operate. We are grateful

for early sight of the proposed reconciliation model, provided on 21 August. We would expect in due course to commence a dialogue with Ofwat alongside the wider industry about the appropriateness of the proposed model to deliver the mechanism set out in the PR24 final methodology.

13.10 Wider cost uncertainty mechanisms

Ofwat has proposed other mechanisms for dealing with cost uncertainty:

We set out our views on real price effects, true-ups and the proposed adjustment for energy costs in Chapter 6 Driving cost efficiency - base and associated documents.

We set out our views on price control deliverables in chapter 9 and in ANH_DD_016 Price Control Deliverables detailed commentary.

14 Risk and Return

Summary of our Representations

The Draft Determination (DD) represents a marginal improvement on the Final Methodology (FM) in respect of its risk-reward framework. There are, however, a number of areas where the DD has not yet struck the right balance and will not enable companies to attract the investment needed to finance the large-scale capital programmes in AMP8. Ofwat must ensure that price controls are calibrated to attract sufficient capital so that companies can finance their functions and hence deliver for existing and future consumers (i.e. the price control will ensure that the water sector is “investable”). Our main Representations are the following:

- The cost of both equity and debt remains too low. This is illustrated, in particular, by the proximity of the cost of equity with the cost of debt and the fact that the average real cost of debt in the sector significantly exceeds the proposed allowed cost of debt. We have identified a number of amendments to the approach to the cost of capital to ensure that it is commensurate with the real expected return from investors in AMP8. These amendments collectively imply a range for the allowed return of 4.06%-4.56% CPIH-real.
- The DD has not adequately addressed the existence of significant asymmetric risk. Investors cannot therefore expect to earn their allowed or required return. This is partly due to unrealistic and skewed targets and allowances. However, even if these targets are assumed to be achievable in the base case scenario, historical data implies that the distribution of outcomes will be negatively skewed. The implementation of these Representations will significantly reduce, but not eliminate, the risk imbalance. We remain open to discussions with Ofwat regarding how this residual downside risk can be addressed.
- Where the notional company is able to meet the baseline targets set out in the DD, the notional company exhibits credit metrics that are consistent with a comfortable investment grade credit rating on the assumption that new equity will be available. The DD also reduces the quantum of new equity needed to achieve this outcome relative to the FM. However, it does not account for contingent and gated funding which

may negatively credit metrics in the early years of AMP8. These factors should be addressed in the Final Determination (FD).

- The proposals to restrict dividends where gearing exceeds 70% run contrary to the regulatory principle that companies remain free to determine their own capital structures, are unnecessary and should, in any case, be addressed outside of PR24. Ofwat introduced licence modifications in 2023 to address companies financial resilience including adjusting the conditions on dividends. The DD fails to justify the deviation from longstanding regulatory precedent, or explain why such additional measures are necessary or why it is appropriate to address such proposals, which go beyond AMP8, within the scope of the price control.

Finally, the DD does not enable the notional company to maintain credit metrics that are consistent with an investment grade credit rating under plausible downside scenarios. By contrast, our proposed Representations enable the notional company to maintain investment grade credit ratings under these scenarios.

14.1 Introduction and context for these Representations on risk and return

This section sets out our comments on the calibration of the risk-reward package in PR24 in the DD.

The economics of the sector are fundamentally changing. Water companies could previously be characterised as value stocks: paying regular dividends, with modest RCV growth, and requiring little or nothing by way of equity injections. In the foreseeable future they will be more akin to growth stocks: undertaking large investment programmes that result in a rapidly growing RCV, paying limited or no dividends and in most cases requiring injections of equity. These changes bring into sharp relief the importance of a regulatory environment that can attract sufficient capital. The salience of this issue extends beyond PR24: our LTDS explains the need for substantial investment over multiple price control periods. This is reinforced by the Government’s strategic priorities for Ofwat,¹⁰³ that stress the need for a regulatory environment which gives proper consideration to the long-term and balances the interests of current and future customers fairly.

103 February 2022: The government’s strategic priorities for Ofwat - GOV.UK (www.gov.uk)

Against this backdrop, we are concerned that the DD has given insufficient consideration to whether the price control presents a sufficiently attractive proposition for investors to commit capital to the sector considering of the approach taken to both risk and allowed return.

This is particularly so in light of recent statements and actions by credit rating agencies in respect of UK water companies. The PR24 FD needs a robust assessment that it is investable in the round. This does not appear to be present - or at any rate, present in sufficient detail - in the DD. To assist Ofwat, we set out our own framework below. This framework strongly implies that the DD is unattractive to investors in its current form.

We are confident that the price control can be made financeable and investable through the amendments we have set out in these Representations, together with additional risk mitigation mechanisms. We remain open to discussions with Ofwat about how these additional mitigations can be implemented.

Our Representations are structured as follows:

- We outline how the DD does not appropriately assess the investability of PR24;
- We set out our specific Representations on the analysis of risk exposure;
- We set out our specific Representations on the DD’s approach to the allowed return;
- We summarise our assessment of the timing of cash financeability; and
- We set out our Representations on a number of new proposed mechanisms.

14.2 Ofwat has failed to assess whether the DD is “investable”

- Ofwat must ensure that price controls are calibrated to attract sufficient capital so that companies can finance their functions and hence deliver for existing and future consumers (i.e. the price control will ensure that the water sector is “investable”)
- This requires consideration of the relevant facts in a manner consistent with an investment appraisal to verify that investors will consider companies sufficiently attractive to commit capital. In particular, Ofwat needs rigorously assess the expected returns, the level of risk associated with such returns and the ability to exit the investment.
- The DD falls significantly short of such an assessment, which we believe underlies, in part, the gap between the DD and what companies, rating

agencies and the markets believe is necessary to attract capital in PR24. We hope that this framework can assist Ofwat in its deliberations on the balance of risk and return as well as the allowed return ahead of the FD.

As a starting point, we are concerned that there has been insufficient assessment of whether the DD constitutes an attractive proposition to investors (i.e. that PR24 is “investable”).

14.2.1 Investability is a core feature of any price control

Enabling the notional company to attract and retain equity capital is fundamental to the delivery of a high-quality, low-cost service to current and future customers. The cost of running the business and the ability of the business to meet required service standards are ultimately predicated on the ongoing maintenance and replacement of existing assets, in addition to the commissioning of new assets.

Ensuring that the price control is investable forms part of Ofwat’s Statutory Duties, including the duty to “*ensure that companies can finance their functions*” and that the price control delivers for both existing and future customers.¹⁰⁴

Compliance with the finance duty has typically been assessed in a narrow manner: emphasising whether there is a reasonable allowed return and the adequacy of credit metrics and dividend yields. However, it remains critical that the assessment ensures that the price control will, in reality, enable companies to attract the necessary capital: a factor now in sharp relief due to the significant changes in the economics of the sector.

An investable price control is a necessity even under the relatively steady-state scenario where the RCV, maintenance and replacement costs are growing in line with market-wide inflation. The maintenance of a constant real RCV relies on investors reinvesting the return of their equity capital, while only distributing their return on equity on average. Where, for example, the allowed return on equity falls below the required return on equity, investors face an incentive to avoid reinvesting their capital, thus allowing the RCV to fall in real terms.

Such an outcome has repeatedly proved itself contrary to the interests of consumers: any gain from lower charges associated with an inappropriately low allowed equity return is overshadowed by the negative impacts of under-investment: service deterioration, falling operational efficiency etc. In some cases, this might manifest in the short-term, where service levels require immediate capital investment to maintain; in other cases, the impact on consumers might only materialise after several years.

104 See section 2 of Water Industry Act (1991) as amended

The situation becomes more acute when the RCV is growing and/or maintenance and replacement costs grow by more than market-wide inflation. Under this scenario, investors must not only be persuaded to reinvest their return of equity capital, but they must also be induced to defer their return on equity. This can result in situations where companies are unable to pay any dividends at all for a protracted period of time, despite nominally operating efficiently. This is problematic for two reasons.

First, investors will generally require a higher equity return when they are forced to accept a lower dividend yield.¹⁰⁵ Second, there are adverse signalling effects associated with dividend policy.¹⁰⁶ These too can lead to a higher required equity return when dividends are suspended or reduced.

In the context of large investment programmes, it may also become necessary for companies to seek “new” equity finance.¹⁰⁷ This adds another dimension to investability: the need to persuade a new cohort of investors to commit capital. In this regard, the “pecking order” theory of corporate finance suggests that different forms of financing have different signalling effects. New equity issuance is generally seen as having the most adverse signalling effect, as it suggests that existing shareholders know something negative about the company and are trying to pass some of their exposure to new investors. For this reason, among others, new equity issuance was almost never observed in the UK regulated sector until recently. In this scenario, investability becomes “mission-critical”: companies simply will not persuade new investors to part with their capital if a price control is not evidently investable.

14.2.2 Testing investability requires an assessment in the round of whether the price control is sufficiently attractive for investors

To demonstrate that it has set an investable price control, a regulator should have considered and balanced all the relevant facts, in a manner comparable to an investment appraisal. In unregulated markets, investment appraisals are extensive and detailed. They rely on a diverse set of evidence, ranging from quantitative analysis based on formal asset pricing models to market “gossip”. This provides prospective investors with a well-rounded view of the target’s prospects. In short, investment appraisals are not perfunctory exercises and rely as little as possible on judgement and untested assumptions.

At a minimum, a standard investment appraisal will include the following features:

- **A dispassionate and carefully-considered assessment of risk** - this will seek to provide an unembellished view of the overall balance of risk that the investor

faces calibrated using an evidence-based risk distribution. An investor will want to understand the scope for downside risk, and will require a robust and evidence-driven quantitative analysis to estimate the range of possible outcomes - including the worst-case scenario.

- **An assessment of prospective returns that is conservative and purely forward-looking** - an investor will not take comfort from the fact that the seller has earned significant profits in the past, if these are not expected to continue into the future. An investment appraisal will therefore not seek to smooth out past and future returns.
- **A sense-check of quantitative findings with intuitive observations and common sense questions** - valuations emerging from complex models will be cross-checked against simple, intuitive observations to ensure that they pass a “realism test”.
- **A formal and candid challenge of the appraisal building blocks from experts and advisors** - a buyer will seek genuine challenge and assurance from a range of supporting third parties.
- **An exit strategy** - an investment appraisal will consider the conditions under which the buyer can exit, including the likely condition of the business at that time, the prospects for finding a new buyer and the terms on which a sale might be executed.

The standard investment appraisal approach undertaken in unregulated markets summarised above should be considered as a benchmark for the approach that an economic regulator takes to assessing the investability of a price control. For sectors such as water, which involve the delivery and maintenance of large and complex capital programmes, with direct impacts on the provision of an essential customer service, the threshold should be far more rigorous.

14.2.3 Ofwat has failed to verify the investability of the DD

The overall approach set out in the DD falls short of an investment appraisal in various respects, calling into question the robustness of Ofwat’s assessment that the price control will be investable:

- Its assessment of risk is incomplete, driven to a significant extent by untested assumptions and structured in a manner that embeds certain outcomes through the way the analysis has been designed (for example, the assumption of normally-distributed outcomes in the analysis of ODI risk). In addition the DD does not provide a view on the maximum range of return outcomes investors might tolerate.¹⁰⁸ This is important, because the existing investors are unlikely

¹⁰⁵ See, for example, the literature following Fama, E. F.; French, K. R. (1993). “Common risk factors in the returns on stocks and bonds”. *Journal of Financial Economics*.

¹⁰⁶ See, for example, the literature following Ross, S.A. (1977) “the Determination of Financial Structure: the Incentive-Signaling Approach.” *the Bell Journal of Economics*, 8, 23-40 and Bhattacharya U. (1980)

¹⁰⁷ Noting that there can be overlap between new and existing investors - for example, in the context of an open offer.

¹⁰⁸ It simply asserts that a particular level of RoRE ranges are acceptable, without providing any justification for this view.

to be willing or able to commit capital where the range of returns exceeds a certain level. For example, there are statutory restrictions of the level of risk that some investors are able to bear. Beyond this level, equity capital would need to be obtained from a different set of investors such as hedge funds, whose required returns could represent a step-change increase relative to current investors.

- The DD allowed return is insufficient to attract required debt and equity capital. This is, in part, because Ofwat has not taken account of all relevant information, some of which has emerged after its March 2024 cut-off date (for example, observed spreads of recent water company bond issuances over the benchmark index). It is also partly due to the use of a “through-the-cycle” approach to setting the cost of equity, which is justified on the grounds that the companies have outperformed their required equity returns in the past.¹⁰⁹ This will necessarily understate the forward-looking cost of equity in AMP8.
- The individual proposals that constitute the price control settlement are not robustly aggregated into an overall package that can be assessed for realism. In so doing, the DD conceals the fact that it has adopted a “ratchet” approach to setting targets and allowances, whereby historical underperformance is ignored, and further stretching targets are applied to previously-set targets that have not been met by any single company. For example, no company achieved the total pollution incidents common performance commitment level in 2023/24.

Individually and collectively, these observations strongly imply that the DD does not constitute an investable proposition. We explore these further below.

14.3 The DD exposes the efficient company to significant downside risk which undermines the investability of the sector

- The DD exposes the efficient company to significant asymmetric downside risk. Investors thus cannot expect to earn their allowed return on average
- We have identified below the specific areas in wholesale and retail costs, performance commitments (ODIs), PCDs and financing risk that expose

companies to downside risk contrary to Ofwat’s assessment of the DD’s risk profile.

- The proposed cost allowances, output levels and incentive mechanisms set out in these Representations will significantly reduce but not eliminate the asymmetric risk. We stand ready to discuss with Ofwat how best to eliminate the remaining asymmetry.

We have carefully considered the assessment of risk in AMP8 in the DD. It broadly follows the approach set out in the FM, with some adjustments at the margin. Based on this assessment, Ofwat has concluded that the risks for the efficient company are broadly symmetric.

We are disappointed that Ofwat has chosen to retain the broad shape of the FM assessment despite the evidence submitted in our FBP, which appears to have been largely dismissed or ignored. It is therefore unsurprising that we still do not agree that the risks in AMP8 are symmetric and remain of the view that substantial downside risk remains.

We review and comment on each element of the DD assessment before outlining a targeted assessment of RoRE ranges prepared by our advisors, KPMG, under two scenarios: a “rebased” scenario where base targets and allowances are assumed to be correctly calibrated and a second scenario based on the median WaSC’s actual performance as at the end of AMP7. We note that the calibration of base targets and allowances, which is separate from the risk assessment, is discussed at length elsewhere in these Representations.

14.3.1 The calculation of wholesale and retail costs exposes companies to asymmetric downside risk

The DD concludes that risks pertaining to wholesale and retail costs are largely symmetric. This is not the case, and is an artifact of the DD’s approach to statistical modelling.

Wholesale costs

The DD concludes that cost outcomes are symmetric partly because it assumes that the AMP6 period (2015-2020) represents the most appropriate basis for its assessment. It did so on the basis that “AMP6] was the first regulatory period that featured totex and our outcome delivery incentives so is the closest comparator to our PR24 approach”.¹¹⁰

¹⁰⁹ For example, in justifying a ‘fixed TMR’ approach, Ofwat states that it “adopts a long (over ten year) horizon, in which it is reasonable to expect these variations to cancel out (such that returns to investors are fair overTime) [emphasis added]” and that “Intervening to correct the allowed return where the ‘fixed TMR’ approach is too low, without allowing for an equivalent correction when it is too high, is a clear violation of this ‘fair bet’ principle and would not deliver a balanced outcome for customers [emphasis added]”. Aligning risk and return - Allowed return appendix, p62.

¹¹⁰ Aligning risk and return - Risk and return appendix, p7

The risk range for wholesale costs has been calculated by “[using] the P10 and P90 from the 2015-20 period set out in Annex A of Appendix 10 of our PR24 methodology. We obtained a view of around +/- 8.5% for wholesale totex over/underspend for the period as a whole”.¹¹¹ We have not attempted to independently verify the assessment but consider it reasonable to suppose that companies exhibited a broadly even balance of over- and under-spending in this period.

By contrast, Ofwat does not consider that the first three years of AMP7 represents an appropriate basis for calibrating the analysis of risk in AMP8. It has put forward the following reasons for this view:

- “Companies have been impacted by COVID-19 and a subsequent period of high inflation have had significant impacts in 2020-23”; and
- “some companies have been delivering performance turnaround programmes which also increases costs”.

These reasons are insufficient to warrant discarding data from AMP7 in their entirety. We acknowledge that the first three years of AMP7 were characterised by exceptional circumstances, and that these specific circumstances may not recur in AMP8. However, they signal greater ongoing uncertainty and volatility that is likely to persist into AMP8, which strongly suggest that these years represent the best available AMP8 proxy.

We also disagree with the DD's conclusion that all of the observed underperformance in AMP7 is due to one-off factors. For example, the DD refers to Southern Water's turnaround programme as a driver of AMP7 overspend. However, it then attributes all of Southern Water's overspend to the turnaround programme, without considering whether it could also be due to mis-calibrated cost targets. Moreover, there is no reason why similar factors could not recur in AMP8: indeed, several companies are underperforming output targets in AMP7 and may need to incur significant costs to improve their performance.

The DD also refers to energy and leakage costs, suggesting that these have now been addressed in AMP8.¹¹² However, this logic is reductionist: even if energy and leakage costs explain a significant proportion of the overspend in AMP7, this does not mean that there will be the same drivers of overspend in AMP8. Rather, the fact that such significant overspend was possible in AMP7 highlights the increasing level of uncontrollable volatility and skew in the price control.

We also challenge the view that AMP6 represents a superior comparator for AMP8. Performance in this period was driven by factors that are, in some cases, ten years out of date. The regulatory framework was very different, and in many cases, more

¹¹¹ Aligning risk and return - Risk and return appendix, p7

¹¹² We note elsewhere in these Representations that there are flaws in the calibration of energy and leakage costs in the DD, notwithstanding the intent to index these costs.

¹¹³ We note that the DD does not consider whether performance in AMP6 could have been driven by one-off factors in the same manner that is supposedly the case in AMP7

lenient than either AMP7 or AMP8. As the Draft Determination acknowledges, the concepts of totex and ODIs had only just been introduced, and their conservative application could explain how companies were able to meet the corresponding target.¹¹³ At a minimum, these drawbacks should have motivated the inclusion of AMP7 alongside AMP6 as a basis for calibration.

We therefore dispute that downside risk associated with wholesale costs has been fully addressed.

Retail Costs

In a similar manner to wholesale costs, the DD indicates that a “reasonable range for a period without global pandemics is likely to be similar to that observed in the 2015-20 period”. Based on this approach, the DD concludes that the RoRE impact of retail risk is broadly symmetric. For similar reasons to those stated above in respect of wholesale costs, we disagree with this calibration period, with corresponding implications for RoRE ranges.

14.3.2 The current calibration of the performance commitments under the ODIs exposes companies to significant asymmetric risk

As a general observation, the DD has made material policy decisions within Excel models published alongside the main body of documentation, without any corresponding exposition or clear signposting in those documents. For example, little or no detail is provided in respect of the calibration of the ODI RoRE ranges in Figure 5 of the Risk and return appendix, with the sole exception of the measures of experience. This is inconsistent with the regulatory principle of transparency: it has proven challenging for regulatory experts to fully understand the calibration of the ODI RoRE ranges; it is inconceivable that consumers or the broader public could do so.

We note that Ofwat has published a suite of models intended to simulate ODI risk in AMP8. From the outset, the manner in which ODI performance distributions are simulated precludes - by assumption - any prospect of downside risk. Specifically, a statement in the cover sheet of the “PR24-DD-ODI-risk-Monte-Carlo-set-up.xlsx” model states that “We assume that performance follows normal distribution”. Because the normal distribution is, by definition, symmetric, it follows that the simulated performance outcomes must also be symmetric. This is compounded by the assumption that the centre of the normal distribution (the P50) is the performance commitment level.

This assumption is not evidenced or justified anywhere in the suite of risk-reward documents and models.¹¹⁴ Given how critical this assumption is in determining the degree of downside risk associated with ODIs, and the price control more generally, it is highly problematic that a detailed examination of asymmetry over the period considered has not been undertaken in the DD.

Our advisors, KPMG, have examined asymmetry in observed performance outputs in AMP7 and identified a significant downside risk associated with performance commitments. We observe that Ofwat's risk analysis at PR19 suggested P10s of between -1 and -3% of RoRE.¹¹⁵ The outturn and forecast to the end of AMP7 on common performance commitments is -2.5% for water wholesale and -1.2% for water recycling wholesale. At PR24 Ofwat is significantly increasing incentive rates (308% on average where a comparison is possible) and proposing a further significant ratchet of performance improvement. This stretches the plausibility of the DD's conclusion of symmetry and the suggestion of a P10 of -1.3% of RoRE for water wholesale and -2% for water recycling wholesale for Anglian Water.

We do not comment on the modelling of incentives and mechanisms by which outcomes are translated into RoRE outcomes in the DD models, but rather have asked KPMG to carry out their own modelling.

14.3.3 The timing and non-delivery mechanisms within PCDs expose companies to asymmetric downside risk

Both the timing and non-delivery PCD mechanisms expose companies to asymmetric downside risk.

Non-delivery mechanisms

The DD states that the PCD mechanisms for clawing back funding for projects that are not delivered should not be included in the assessment of risk, on the grounds that: "*we consider the scenario that a company incurs significant abortive costs, that cannot be considered as design work for future improvements, should not be a material risk for an efficient company*".¹¹⁶

This is a perfunctory and unevidenced dismissal of an important source of risk exposure. It is entirely conceivable that an efficient company will incur considerable abortive costs before concluding that a project is either non-viable or determining that a superior alternative exists for delivering the same output. An examination of broader market evidence¹¹⁷ indicates that this is far from an uncommon occurrence, and so should not be entirely attributed to inefficiency.

¹¹⁴ It is also not evidenced or justified in the FM. Rather, the FM simply states that, "*The ex-ante risk ranges that we present in section 2.2 set an expectation that the risk and reward package is broadly symmetric*"

¹¹⁵ Figure 3.6, PR19 final determinations: Aligning risk and return technical appendix

¹¹⁶ Aligning risk and return - Risk and return appendix, p11.

¹¹⁷ This is set out in ANH_DD_085 PR24 risk analysis for a notional company at PR24.

Timing mechanisms

We welcome that the DD acknowledges there is risk exposure from the timing element of price control deliverables. As KPMG explains in ANH_DD_085 PR24 risk analysis for a notional company at PR24, the timing incentive is negatively skewed because the penalty rate of 1:4 was set based on a non-representative sample of project delay performance. Specifically, the penalty was set based on the assumption that an efficient company would deliver 20% of schemes late and 80% on time. Based on this assumption, a penalty ratio of 1:4 would result in a net penalty of zero on average.

However, the schemes considered for calibrating the time incentive were exclusively comprised of AMP7 WINEP schemes. Many of these schemes exhibit a low level of complexity and are comprised of short duration projects. For example, within the WINEP programme, schemes included installing monitors at wastewater treatment works (42% of schemes) and investigations into the presence of monitors at wastewater treatment works (17% of schemes).

This sample is not representative of the AMP8 enhancement programme, which is considerably more complex. By way of illustration, KPMG have prepared an Infrastructure Database which demonstrates that projects of similar size, complexity, and duration to those within the AMP8 programme are delivered late in 44% of cases. A lower penalty rate for an efficient company would be necessary to achieve zero net penalties. As it stands, the penalty rate set out in the DD contributes to a negatively skewed distribution of RoRE outcomes.

14.3.4 The DD's approach to inflation and interest rates expose companies to asymmetric downside risk

The DD also exposes companies to asymmetric financing risk through the assessment of inflation and interest rates.

Inflation

We welcome that the DD acknowledges companies are exposed to risk due the majority of debt being fixed, while the RCV is indexed by inflation as measured by CPIH. We also welcome the acknowledgement that companies are exposed to risk due to having issued RPI-linked debt, while the RCV is indexed by inflation as measured by CPIH. The resulting RPI-CPIH "wedge" can therefore differ from the assumption embedded within the cost of debt allowance.

The DD assumes that all non-CPIH index-linked debt is linked to RPI on the basis that only 3% of current debt is currently indexed to CPI. However, due to the lack of liquidity in the CPIH market, new debt issuances are likely to be CPI-linked and

thus an efficient notional firm is exposed to the CPI-CPIH wedge for which the DD does not provide an allowance. Historical data from April 2000 indicates that the CPI-CPIH wedge is zero at the P50 but a wedge of 0.68% and -0.30% is present at P10 and P90 respectively. Companies are accordingly exposed to basis risk.

Interest rates

We welcome that the DD acknowledges companies are exposed to the risk that the spread of water company bonds over the benchmark index may exceed or fall short of that assumed in the PR24 allowances. We consider that this risk is broadly symmetric in nature, but will widen the range of RoRE outcomes.

14.3.5 The combined effect exposes the efficient company to significant asymmetric downside risk

Our advisors, KPMG, have examined the distribution of performance outcomes in AMP7, and their consequences for RoRE outcomes. The details of this assessment are set out in ANH_DD_085 PR24 risk analysis for a notional company at PR24. The premise of KPMG's work is that it is the distribution of outcomes faced by the median company that is of interest when carrying out risk analysis in the context of PR24. Implicitly, KPMG considers that the median company represents the efficient notional benchmark.

Efficiency in the context of cost models is generally assessed with respect to the upper quartile company. This follows from the fact that it is a single output - namely, cost - that is being assessed. When several outputs are considered together - for example, costs, PCLs, timely delivery of projects etc - the determination of the efficient benchmark becomes more complex. However, it can be stated with confidence that the efficient benchmark lies below the aggregate performance level implied by upper quartile performance for each output individually.

By way of illustration, no single firm consistently achieved upper quartile performance across all ODIs in AMP7, even before consideration of costs and timely delivery of projects. This would mean that an upper quartile benchmark applied to all costs and outputs individually would effectively imply an aggregate performance level in excess of the 100th percentile. This is patently unreasonable.

We agree with KPMG that the median performance level for each output is likely to be a more suitable proxy for the efficient benchmark when considered in aggregate. We are open to further discussion with Ofwat regarding how the efficient benchmark can be further refined: for example, using Data Envelopment Analysis or other statistical techniques. In the meantime, we follow KPMG's approach of considering risk exposure from the perspective of the median WaSC.

This analysis clearly shows that the DD exposes the median WaSC to significant downside risk, even when companies are forecast to start AMP8 at the target performance levels set out in PR19 for the end of AMP7. The table below sets out the RoRE impacts of each risk driver under this "rebased" scenario.

Table 19 RoRE impacts on base equity return for the median WaSC under “rebased” scenario

	P10	P50	P90
Totex	-2.4%	-2.0%	-1.6%
Retail	-1.6%	-1.0%	-0.6%
DPC	-0.2%	-0.2%	-0.2%
Mex	-0.3%	-0.2%	-0.1%
ODIs	-2.6%	-2.0%	-1.5%
Financing	-1.5%	-1.0%	-0.6%
Rev.	-0.1%	-0.0%	-0.0%
Total RoRE¹	-8.6%	-6.4%	-4.7%
Total RoRE²	-5.0%	-3.9%	-3.2%

- 1 Simple additive total
2 Total inclusive of correlations

The extent of asymmetric risk is exacerbated when the fact that companies are likely to start AMP8 underperforming their opening targets is taken into account.

Table 20 RoRE impacts on base equity return for the median WaSC based on actual forecast AMP7 Y5 performance

	P10	P50	P90
Totex	-2.6%	-1.3%	0.1%
Retail	-2.2%	-0.6%	0.9%
DPC	-0.2%	0.0%	0.0%
Mex	-0.3%	0.0%	0.5%
ODIs	-3.4%	-1.8%	-0.4%
Financing	-1.9%	-0.3%	1.2%
Rev.	-0.1%	-0.0%	0.0%
Total RoRE¹	-10.5%	-4.0%	2.3%
Total RoRE²	-7.0%	-6.0%	-5.3%

- 1 Simple additive total
2 Total inclusive of correlations

KPMG have also estimated the downside risk we specifically face. This was based on the sector-wide outcome distributions in AMP7 applied to our allowances, incentive rates and mitigation mechanisms as set out in the DD.

As set out in the Table below, this analysis shows that we also face significant downside risk, in line with the median company.

Table 21 RoRE impacts on base equity return for Anglian Water under “rebased” scenario

	P10	P50	P90
Totex	-2.2%	-0.6%	0.7%
Retail	-1.6%	0.00%	1.6%
DPC	-0.1%	0.0%	0.0%
Mex	-0.5%	-0.3%	0.0%
ODIs	-3.2%	-2.2%	-0.9%
Financing	-1.5%	0.0%	1.5%
Rev.	-0.1%	-0.0%	0.0%
Total RoRE¹	-9.2%	-3.1%	3.1%
Total RoRE²	-6.0%	-3.1%	-0.1%

- 1 Simple additive total
2 Total inclusive of correlations

As with the median company, the extent of asymmetric risk is exacerbated when the fact that we are likely to start AMP8 underperforming its opening targets is taken into account (as summarised in the table below).

Table 22 Anglian Water RoRE impacts on base equity return based on actual forecast AMP7 Y5 performance

	P10	P50	P90
Totex	-2.6%	-1.3%	0.0%
Retail	-2.2%	-0.6%	0.9%
DPC	-0.1%	0.0%	0.0%
Mex	-0.5%	-0.3%	0.0%
ODIs	-3.2%	-2.2%	-0.6%
Financing	-1.9%	-0.3%	1.2%
Rev.	-0.1%	-0.0%	0.0%
Total RoRE¹	-10.5%	-4.7%	1.5%
Total RoRE²	-7.4%	-4.6%	-1.8%

1 Simple additive total
2 Total inclusive of correlations

We have also asked KPMG to examine the RoRE ranges that emerge under the cost allowances, output levels and incentive mechanisms we have set out in these rRpresentations. We find that these substantially reduce - but do not eliminate - the asymmetric risk we face.

Table 23 Anglian Water RoRE impacts on base equity return based on our Representations

	P10	P50	P90
Totex	-2.2%	-0.6%	0.7%
Retail	-1.6%	0.0%	1.6%
DPC	-0.1%	0.0%	0.0%
Mex	-0.5%	-0.3%	0.0%
ODIs	-1.4%	-0.5%	0.3%
Financing	-1.5%	0.0%	1.5%
Rev.	-0.0%	0.0%	0.0%
Total RoRE¹	-7.4%	-1.4%	4.1%
Total RoRE²	-3.8%	-1.1%	1.5%

1 Simple additive total
2 Total inclusive of correlations

There are a number of possible mitigation mechanisms that could address this residual asymmetry. Rather than propose a specific suite of measures, we have asked KPMG to set out a menu of possible options that Ofwat could consider in order to redress the imbalance of risk. These are set out in ANH_DD_085 PR24 risk analysis for a notional company at PR24. We stand ready to work with Ofwat to develop risk mitigations that would best achieve its statutory objectives in a practical fashion. However, the overriding imperative is to ensure that the remaining risk imbalance is addressed, regardless of how this is done. Otherwise, the price control cannot be regarded as an investable proposition.

14.4 The allowed returns remain insufficient to attract capital to the sector and ensure investability

- The DD underestimates the cost of both embedded and new debt.
- We have proposed adjustments to the methodology as well as the underlying data to bring them into line with the real expected cost of new and embedded debt. The DD also underestimates the additional costs of raising debt for which we have proposed a number of adjustments.
- The cost of equity also remains too low. This is illustrated, in particular, by the proximity of the cost of new debt and equity under the allowed return. We have identified a number of adjustments to the CAPM parameters to bring the allowed cost of equity into line with the real expected cost of equity.
- The DD also applies an unjustified adjustment to the retail margin. We explain below why the adjustment is unnecessary.

The allowed debt costs, the allowed equity return and the retain margin proposed in the DD continue to understate the values necessary to attract capital to fund required levels of investment.

In each of the following areas, we set out our assessment of the DD proposals and set out an alternative proposal:

- The cost of embedded debt
- The cost of new debt
- Additional debt costs;

- The cost of equity; and
- The retail margin.

Our overall estimated allowed return and its constituent parameter estimates are as follows.

Table 24 Estimated allowed return (CPIH)

Parameter	Lower bound	Upper bound
Gearing	55%	55%
Risk free rate	1.55%	2.22%
TMR	6.73%	6.93%
Unlevered beta	0.28	0.35
Equity beta	0.62	0.78
Cost of equity (range)	4.77%	5.88%
Cost of embedded debt	2.89%	
Cost of new debt	4.02%	
Additional debt costs	0.29%	
Proportion of new debt	26%	
All-in cost of debt	3.48%	
Wholesale allowed return (range)	4.06%	4.56%
Retail margin adjustment	None	None

14.4.1 The DD understates the cost of embedded debt

The DD largely follows the approach set out in the FM in placing weight on both an “all-in” and “actual-notional” approach. Despite the nomenclature, both approaches effectively represent variants of a “notional” approach, since they adjust companies’ actual costs of embedded debt based on assumptions regarding how the notional company has historically financed itself.

The aim of specifying a notional financial structure is to ensure that the cost of debt cannot be materially influenced by a single company, and so companies are disincentivised from seeking to pass through inefficiently-incurred financing costs to consumers. This is a reasonable objective but must be balanced against the risk that companies are unable to recover their efficiently incurred costs of debt. Setting the cost of embedded debt with reference to actual sector-wide debt costs is sufficient to achieve this objective. It provides each company with an incentive to outperform the sector average cost of embedded debt, which they cannot materially influence.

As we understand it, the intention of the “actual-notional” approach is to develop a hypothetical benchmark that represents a debt issuance profile that companies can reasonably be expected to have followed. This is not without precedent. For example, it is common practice for fund managers’ performance to be assessed with respect to their adherence to such benchmarks over time. The critical distinction is that fund management benchmarks are specified in advance and are closely linked to fund managers’ ex ante investment strategies. This means that fund managers will consciously aim to match the benchmark when making investment decisions.

The benchmark proposed in the DD was never clearly articulated as a target that companies should aim to achieve, and hence companies cannot reasonably have been expected to adhere to it.¹¹⁸ It is unreasonable to assess companies’ ex ante financing decisions through an ex post benchmark developed many years (on average) after the fact. It is, in general, always possible to construct an ex-post benchmark resulting in lower costs than companies’ actual profile of debt issuance. But this reveals no information about whether companies’ financing decisions could be considered “efficient” at the time they were made.¹¹⁹ It is therefore unreasonable to place any weight on this benchmark.

It is also important to highlight that applying a notional benchmark that differs from actual sector-wide costs provides no additional incentive to minimise embedded debt costs compared with setting the cost of embedded debt allowance based on the actual sector-wide cost of embedded debt. It solely serves to under-remunerate companies for their actual costs.¹²⁰

By contrast, the “all-in” approach aligns in principle with our proposed approach. We have two principal disagreements with the all-in approach as currently applied in the DD:

¹¹⁸ We acknowledge that this benchmark was, implicitly, used for financeability testing in previous price controls. However, it was never explicitly used by Ofwat to set the cost of debt, and hence cannot be regarded as an explicit target to which companies were expected to adhere.

¹¹⁹ In principle, it is possible to construct a benchmark for each debt instrument individually to assess whether the decision to issue the instrument on the observed terms was “efficient”. However, the informational requirements necessary to implement this approach are so demanding as to be impractical.

¹²⁰ We note that in the context of the CMA’s determination of both the PR19 and H7 price control, the CMA accepted the validity of a benchmark-led approach, on the condition that it did not depart materially from companies’ actual cost of debt. The two approaches led to very similar estimates in both cases. This is not the case with the PR24 Draft Determination.

- **The use of unadjusted APR data** - this data as it currently stands is not well suited for the purpose for which it is being used in the DD, and incorrectly estimates the cost of individual instruments. The overall effect of this miscalibration is to understate the cost of embedded debt.
- **The exclusion of swaps** - as with the actual-notional approach above, the exclusion of swaps from the cost of embedded debt is an ex post judgement that the issuance of swaps was “unnecessary”. This judgement does not consider what the counterfactual to issuing swaps might have been, or its impact in terms of gearing and cost. To justify the exclusion of swaps, it is necessary to assess each instrument to determine whether there was a less costly choice available to companies at the time the swap was issued. Given the burden of doing so, we propose that a more proportionate approach would be to include the cost of swaps in the cost of embedded debt.

We note Ofwat is consulting on two refinements to its all-in approach, on which we comment below:

- **Accretions on index-linked instruments** - we consider that it would be appropriate to include these accretions, as they more accurately reflect the cost of the instruments and the weight assigned to them, and hence more in line with the intention of the all-in approach; and
- **Adjustments for bonds issued above/below par** - we consider that that these adjustments should be made, for similar reasons to that stated above.

We would finally highlight that it is important to ensure that the all-in cost of debt estimate accurately forecasts the refinancing of embedded debt within AMP7. We note Ofwat’s intention to update for 2024 data and to include debt due to be refinanced in 2025. However, the DD has signalled that the forecast quantum of debt due to be refinanced will be based on the forecast growth of the RCV at the notional gearing level. This is likely to understate the amount that companies will need to refinance in practice, and so is inconsistent with the principle of the all-in approach.

To address these issues, we consider that the cost of embedded debt should be based on the average actual cost of embedded debt for the sector as a whole. This corrects for the errors in the APR data in terms of the cost of individual instruments, includes the cost of swaps within the industry actual average cost of embedded debt, includes accretions on index-linked instruments and includes adjustments to instruments issued above/below par. It also updates the estimate for the projected debt issuance during the final year of AMP7, including on the final day.

Our advisors, KPMG, have carried out an estimate on this basis, as set out in ANH_DD_,069 Cost of embedded debt and concluded that the cost of embedded debt should be 2.89% in AMP8. We are conscious of the administrative burden associated with APR data in a manner that enables an appropriate estimate of the cost of embedded debt, and do not propose that these amendments are put in place prior to the PR24 FD. KPMG has already undertaken this work, including a reconciliation to the DD estimate. In due course, we stand ready to assist Ofwat to amend the APR data in accordance with the requirements stated above.

14.4.2 The DD understates the cost of new debt

It is important that the cost of new debt estimate reflects the latest available data on water company debt issuances. The DD only includes issuances up to March 2024 and thus does not capture the recent underperformance of water company debt observed since then. It accordingly understates the expected cost of new debt in AMP8.

The DD now includes additional instruments in its assessment. In principle, the inclusion of a broader set of instruments should improve the robustness of the assessment. However, this will only be the case where the additional set of instruments are compared to the benchmark on a like-for-like basis. This is not the case at present, as the DD:

- Includes instruments whose tenor is below ten years, which is not consistent with the benchmark index that exclusively comprises bonds whose tenor is above ten years; and
- Includes instruments, such as private placements, that are difficult to directly compare to vanilla corporate bonds in the absence of further adjustments.

These additional instruments therefore need to be carefully scrutinised before being included in the assessment.

Furthermore, Thames Water’s issuer and Class A debt has been downgraded to speculative grade since our June cut-off date. As a consequence, Thames Water bonds are no longer included in the iBoxx investment-grade indices. We have not updated our estimate of the cost of new debt to reflect this development. However, KPMG have concluded that it reduces the index yield compared to when Thames Water’s debt was included. Ofwat should carefully consider the implications for the cost of new debt allowance at the FD. In particular, Ofwat should re-estimate the benchmark spread based on the new values for the index and the latest yields on company bond issuances.

To address these issues, we would propose that the cost of new debt allowance be based on the widest possible range of instruments that enable a like-for-like comparison with the benchmark index and the latest available data on water sector bond issuances. The detailed assessment is set out in the ANH_DD_086 Cost of new debt.

On this basis, we estimate that the average cost of new debt for the sector as a whole is 4.02%. We agree with the DD estimate of the share of new debt of 26%.

14.4.3 The DD understates additional debt costs

The DD accurately captures the main categories of additional debt costs that should be included within the cost of debt. We propose the following amendments to the other categories:

- **Issuance costs** - the estimate of 5bp set out in the DD appears reasonable and approximately in line with actual costs incurred.
- **Liquidity costs** - the DD estimate provides liquidity for 12 months. This understates the period for which companies provide liquidity on a forward-looking basis under their treasury management policies, which tends to be between 18-24 months. An allowance that provides for this quantum of liquidity is therefore more appropriate. We consider that an allowance of 5bps would be appropriate for this purpose.
- **Costs of carry** - the basis of the Draft Determination estimate appears reasonable. However, it assumes that the notional company would be required to provide prefinancing for 6 months. In practice, company treasury management policies typically require prefinancing for a period of least 12 months. This is consistent with credit rating agency requirements for “Strong” and “Adequate” liquidity. It is reasonable to assume that this should apply to the notional company. Based on Ofwat’s estimate of the cost of carry for 6 months of 6-7bps, this implies a cost of carry for the notional company of at least 12bps - 14bps. KPMG has estimated the actual cost of carry for the median company as approximately 13bps. We agree with this, which also appears consistent with the high-level estimate for the notional company above.
- **Basis risk** - The principal issue is whether the allowed RPI-CPI wedge is sufficiently in excess of reasonable estimates of the forward-looking wedge based on market data as to compensate for this cost. KPMG have estimated that the median company in the sector incurred a cost of 6bps to issue swaps hedging against basis risk. The proposed wedge accordingly now understates

the value implied by the latest market data. We therefore consider that it would be appropriate to use an alternative value of 6bps.

Applying these allowances for additional debt costs in AMP8 results in total additional debt costs of 29bps.

14.4.4 The DD understates the cost of equity

The DD’s approach to total market return, the risk-free rate, the equity beta and the point estimate for the cost of equity underestimate the cost of equity.

The DD fails to incorporate an appropriate uplift to the cost of equity to reflect that a fixed market return is likely to underestimate the real TMR in AMP8

The DD continues to rely on the assumption that the TMR is “fixed” over time failing to give due regard to the impact of recent macroeconomic conditions on the TMR for AMP8.¹²¹ While this is how the TMR has been estimated in the past, the conditions in AMP8 represent a significant change to the preceding 20 years. There is extensive evidence that the TMR in AMP8 will exceed its historical average. This clearly warrants reconsideration of previous approaches, which are unlikely to be appropriate for PR24. The DD also mischaracterises the 2023 UKRN guidance which refers to a relatively stable rather than a fixed TMR.¹²²

It is not possible to rely on the premise that “surprises” in market returns cancel out over time, even if this is a reasonable assumption in the longer-term.¹²³ If the expected market return in a particular period exceeds the allowed market return, it will not be possible to attract the new equity capital necessary to fund the investment programme in AMP8. For the same reason, it is insufficient to rely on any alleged historical outperformance on the cost of equity to justify a wedge between the expected and allowed market returns. This omission is likely to be a significant contributor towards the implausibly small wedge between the observed cost of equity and cost of debt (see below).

Furthermore, the DD’s TMR is inconsistent with a TMR that is “fixed” over time: the DD’s midpoint TMR estimate is 23bps below the midpoint of the range determined by the CMA in PR19 and 17bps below the midpoint of the TMR range set out in the RIIO-3 Sector-Specific Methodology Decision. Regarding the DD’s “fixed” TMR, we welcome the lower weight attached to approaches involving “World” data, which improves the robustness of the TMR estimate. We continue to disagree with the use of the Barclays Equity and Gilt Study to estimate the ex ante TMR, given its known flaws.¹²⁴ The use of Campbell et al and/or DMS data provide a superior basis of estimation.

¹²¹ This terminology was employed in the Aligning risk and return - Allowed return appendix, p62.

¹²² “UKRN guidance for regulators on the methodology for setting the cost of capital”, p19 which states that, “This approach does not imply that regulators should simply pick the same fixed value for the TMR in each decision for all time, but that the TMR would be relatively less variable than the underlying RFR”

¹²³ This is by no means certain, and has not been evidenced in the Draft Determination.

¹²⁴ As set out in KPMG (2023), “Estimating the Cost of Equity for PR24”, Section 5.4.5.

Consistent with the approach in our FBP, we consider that a significant degree of aiming up on the cost of equity is warranted - over and above that proposed by Ofwat - to reflect the fact that this approach is highly likely to understate the true cost of equity. KPMG have estimated a range for the TMR as follows:

- An upper bound based on solely on ex post averages of historic equity returns; and
- A lower bound based on an average of ex ante and ex post returns (this deviates at the margins from the estimate provided alongside our FBP where the lower bound was based solely on ex ante returns).

There is also considerable judgement involved in estimating the stable value of the TMR, both in terms of the weight to be attached to specific approaches, and the technical detail associated with the application of each approach. Given that disagreements regarding the correct application of ex post and ex ante estimates have continued over numerous price controls and CMA appeals, with no obvious consensus emerging, we do not believe that a protracted debate over the technical details is productive. Rather, we take comfort from the fact that we have asked KPMG to put forward an independent view of the stable TMR, and that this has yielded a value that is subsumed within Ofwat's own proposed value. Based on the above estimates, we agree with KPMG's estimate of 6.73%-6.93%.

The DD's approach to estimating the risk free rate fails to account for a convenience yield on ILGs and the difference in borrowing and lending rates

We are disappointed that Ofwat has retained its approach of using RPI-linked gilts as the sole proxy for the risk-free rate. While acknowledging that judgement is required where there compelling arguments in favour of different approaches, it is appropriate to place weight on a range of alternatives where these have merit. By contrast, the DD has set out a narrow view of the risk-free rate. By disregarding alternatives in their entirety, the DD impermissibly dismisses them absent sufficient justification.

We disagree, more specifically, with Ofwat's failure to take into account the convenience yield associated with ILGs and the Brennan framework on the differential between borrowing and lending rates.

The risk-free rate fails to include an appropriate convenience yield consistent with the use of ILGs

First, the DD has not applied an adjustment to ILG yields to reflect a convenience yield. Ofwat's economic consultants, CEPA, conclude that "*the presence of a convenience yield within some ILGs is plausible*" but disagree that "*it is sufficiently*

material ... for setting a risk-free rate in this context". We continue to consider that the convenience yield is sufficiently material to warrant inclusion in the estimate of the risk free rate for the following reasons.

CEPA challenges, in the first instance, the robustness of estimating the convenience yield based on AAA-rated non-government bond indices. They identify an allegedly limited set of constituents in these indices and argue that this means it "*does not clearly reflect a substantially more accessible borrowing rate for market participants than the ILG itself*".¹²⁵ However, the number of instruments in the AAA-rated non-government bond indices does not self-evidently preclude an informed and meaningful comparison to ILGs.

CEPA also refers to the composition of the constituents in the index as a source of concern, in particular because the majority of bonds have been issued by the EIB and may be affected by "*structural characteristics [...] that might drive their gilt spread in ways that aren't due to a convenience yield*".¹²⁶ But CEPA does not explain why the fact that some bonds were issued by the EIB is relevant in this respect. Indeed the structural characteristics to which CEPA refers are, in our view, likely to be examples of how gilts benefit from their privileged position within legal and market frameworks and hence reflect a convenience yield.

CEPA also observes that "*overall, we do not consider that supranational bonds are completely risk-free*".¹²⁷ No debt instrument is truly risk free. The important observation is that ILGs exhibit lower yields than AAA-rated instruments despite the latter being more highly rated, and hence having a lower probability of default. Therefore, if the yields on both AAA-rated bonds and ILGs were adjusted to exclude credit risk, the estimate of the convenience yield would increase.

CEPA challenges, in the second instance, the way in which AAA-rated non-government bond indices have been compared with UK gilts to derive a convenience yield estimate. CEPA has challenged the CMA's PR19 approach on the grounds that: "*the average of the iBoxx 10-year+ and 10-15 year indices is not an appropriate proxy for a 20-year index. In particular, the 10-15 year index is a strict subset of the 10-year+ index, consisting only of those bonds in the 10-year+ index which reach maturity in fewer than 15 years. It may not be appropriate to interpret an average of the two indices as a proxy for a 20-year index, as this essentially double-counts the bonds in the 10-15 year index to pull down the average index maturity*" We agree with CEPA's statement, and so do not endorse the CMA PR19 approach.

- CEPA also highlights that the large convenience yield implied by the CMA's approach is driven to a significant extent by higher inflation expectations

125 CEPA, "PR24 Cost of Equity", p45

126 CEPA, "PR24 Cost of Equity", p46

127 CEPA, "PR24 Cost of Equity", p46

embedded within the AAA-rated non-government bond index compared with the 2% long-term inflation assumption used to deflate the nominal yields on this index under the CMA's approach. We also agree with this statement.

- To illustrate this point, CEPA then develops an estimate of the convenience yield based on an "adjusted" CMA approach that compares the 20-year nominal gilt with the 20-year AAA proxy. CEPA comments that the yields on these benchmarks have converged in the last year. CEPA states that "*The convergence of the CMA's 20-year AAA proxy yield and the 20-year nominal gilt yield might indicate a near-zero convenience yield*", but qualifies this by stating that "*We consider that the approach suffers from a clear flaw in terms of the inputs into the calculation and the ability to proxy a 20yr instrument*". Our interpretation of these statements is that CEPA has not concluded that a convenience yield is near-zero on this basis. For the avoidance of doubt, we do not consider that the adjusted CMA approach demonstrates this.
- CEPA refers to the methodology applied by the CAA to estimate the convenience yield in the context of the H7 price control determination, but appears to have misinterpreted the CAA's approach to estimating the convenience yield. The CAA did not undertake an instrument-by-instrument analysis, but rather based its estimate on two sets of comparisons:
 - The yield on the 10+ year AAA-rated non-government bond index and on 20-year fixed-rate gilts; and
 - The yield on the 10-15 year AAA-rated non-government bond index and on 12.5-year fixed-rate gilts.
- KPMG estimate that rolling forward the CAA approach to PR24 implies a convenience yield estimate of 32bps. We consider that the CAA approach remains a reasonable basis for estimating the convenience yield. In particular, it addresses both of CEPA's objections to the CMA PR19 approach.
- We accept that an instrument-by-instrument analysis based on index constituents would have been a possible alternative approach, and accept CEPA's estimate of the convenience yield under this approach. We also accept CEPA's comments regarding the sensitivity of such an approach to individual pairwise comparisons, and therefore suggest that this approach is not obviously superior to the CAA approach.
- We note Ofwat and CEPA's comments regarding whether or not the AAA-rated RPI-linked bonds used by KPMG are thinly traded, and whether their supposedly short average time-to-maturity diminishes their value as a benchmark. KPMG respond to these comments in ANH_DD_067 Cost of Equity. Even if this is the case, we consider that the CAA approach still represents a reasonable basis for estimating the convenience yield.

CEPA has argued, in the third instance, that estimates of the convenience yield put forward by various parties do not take these characteristics of UK gilts into account. We accept that UK gilts are not entirely free of credit risk. But, for the same reasons as set out above, this is not relevant since it does not undermine the existence of a convenience yield. CEPA's position that any convenience yield would be likely to decline for longer tenor instruments also does not withstand scrutiny. The latest version of the Diamond and Van Tassel paper on the UK convenience yield provides evidence to suggest that the convenience yield does not decline at longer tenors. We also accept that ILG yields are likely to include a small liquidity risk premium relative to fixed-rate gilts. However, in the absence of a robust means of quantifying this, there is no reasonable basis for adjusting the estimate of the convenience yield downwards to reflect this premium. Finally, to the extent that ILGs are subject to these distortions, this calls their suitability as the sole benchmark for the risk free rate into question.

The risk-free rate fails to address the Brennan framework and its effect for estimating the risk free rate

Second, CEPA has not commented on the Brennan (1971) framework or its implications for estimating the risk-free rate. Ofwat's justification is that the application of the framework makes no difference in terms of impact and is too complicated to estimate.¹²⁸ We disagree. The ANH_DD_067 Cost of Equity report explains the potential impact of the Brennan framework. Furthermore, KPMG have already implemented such an approach alongside the FBP, as did the CMA in PR19. Either of these precedents could have informed a meaningful estimate by Ofwat. As such, the DD does not present a compelling justification for non-engagement with the Brennan framework, particularly given that this was the basis for the CMA's PR19 approach.

The risk-free rate should be adjusted to a range of 1.55%-2.22%

On this basis, we consider that the following approach should be adopted to estimate the risk free rate in AMP8:

- A lower bound for the risk-free rate based on 20-year ILGs only, averaged over the one-month period to June 2024 and with no adjustment for forward rates. We consider that this acknowledges the challenges associated with quantifying the convenience yield and/or shortcomings of the traditional CAPM assumptions regarding differential borrowing and savings rates - and so recognises the possibility that no adjustment is needed to ILG yields; and
- An upper bound that is equal to the lower bound plus an upwards adjustment of 77bps, based on the difference in yield between RPI AAA-rated

¹²⁸ On p17 of the allowed return appendix, Ofwat states that "we note that even if we were to adopt the Brennan framework, it would not make a meaningful difference". On p17 of the allowed return appendix, Ofwat states that, "deviations from the stylised CAPM with a single risk-free rate may bring added complications with no clear resolution".

non-government bonds and maturity-matched RPI gilts, following the Brennan (1974) framework.

Our preference is to set a range that encompasses all the relevant datapoints, notwithstanding that each has its own merits and drawbacks. This appears to us to constitute an unbiased and dispassionate approach to parameter estimation, in contrast to that adopted in the DD. We are cognisant that this range is relatively wide - however, this is driven by the significant degree of uncertainty that is emerging in the context of estimating the risk-free rate.

We therefore consider that a range for the risk-free rate of 1.55%-2.22% would be appropriate.

The Equity beta fails to take into account Pennon Group plc

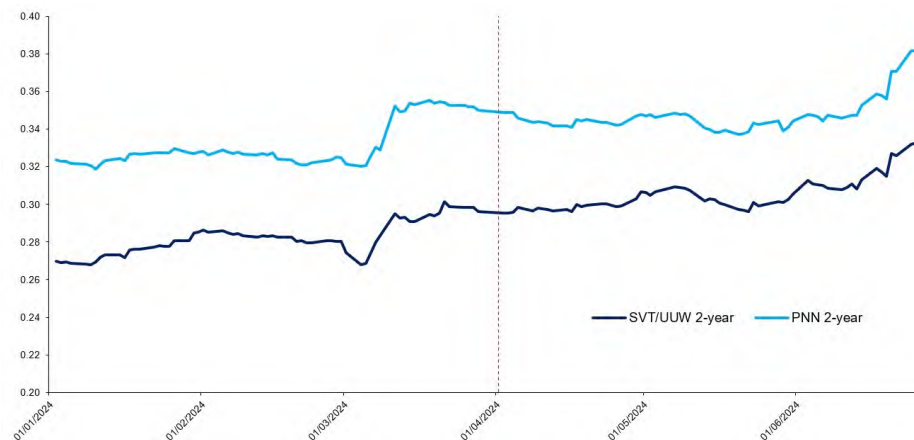
The DD adopts an approach that in several respects replicates a “standard” approach to estimating the equity beta which we support. The principal element of the approach set out in the DD with which we disagree is the exclusion of Pennon Group plc (“PNN”). This is justified on the grounds that its gearing has been distorted by the sale of Viridor on cash balances. The FM signalled that the inclusion of PNN would be re-considered at the DD stage, but this does not appear to have taken place.

As we indicated in our FBP, we consider that it is possible to adjust for the alleged distortion in PNN’s gearing to remove any bias of the estimate of the equity beta. As such, the exclusion of this comparator cannot be justified on this basis, and unduly restricts the information set upon which the equity beta estimate is based. Given that there are only two other comparators available, this is an important omission.

In their report, KPMG have put forward their independent view of a range for the equity beta, based on: (A) a lower bound that is essentially consistent with the lower bound of the CMA approach in PR19, updated to reflect the latest market data (this relies solely on Severn Trent (“SVT”) and United Utilities (“UU”) as comparators and considers a broad range of data frequencies and time periods; and (B) an upper bound that is based on National Grid plc. KPMG’s estimated range for the unlevered beta based on the above is 0.28-0.35. We agree with the basis for, and value of, the lower bound estimated by KPMG. In particular, we agree that there is no reasonable basis for a value below that implied by updating the lower bound of the CMA approach updated for recent market data.

We further agree with KPMG that the upper bound of the range for the unlevered beta should reflect the best available information regarding forward-looking risk exposure. In that regard, we note that unlevered betas have risen steadily since the start of 2024, which suggests that investors are increasingly expecting higher systematic risk exposure in AMP8.

Figure 37 2-year unlevered daily beta



We also note that there is evidence to suggest that reliance on the equity beta of SVT and UU alone will understate the equity beta of the median company in the sector.

We have not been able to develop an approach to robustly quantify the extent to which the listed companies exhibit lower systematic risk compared with the sector average. However, it is notable that the debt spreads for the listed companies are materially below those for the other water companies. This is illustrated in the table below:

Table 25 Debt spreads and actual gearing for BBB+ rated listed and unlisted water companies

	Average spreads (bps)	Gearing
Northumbrian	155	68.3%
Severn Trent	116	62.1%
United Utilities	96	66.2%
Wessex	131	67.5%
Affinity	144	74.1%
Average for sector	128	67.6%
Average for listed companies	106	64.2%

Some, but not all, of the difference in spreads is likely to be driven by differences in gearing. A simple OLS regression of gearing against debt spreads for the above companies indicates that gearing explains 34% of the variance in debt spreads across the BBB+ rated companies.

It also indicates that 11bps of the 22bps difference in debt spreads between the listed companies and the sector average can be accounted for by differences in gearing. This in turn implies that other factors account for 11bps of this difference. The most plausible explanation for this residual variation in debt spreads among BBB+ rated companies is that investors perceive a material difference in systematic risk between listed companies and the median company.

We therefore consider that, to avoid basing the estimate of the unlevered beta on companies that exhibit the lowest systematic risk exposure in the sector, we should base the upper bound for the unlevered beta on PNN alone. We consider that a rolling average of two-year daily betas for PNN between March and June 2024 represents the most appropriate basis for the upper bound of the unlevered beta range. This suggests a value of 0.35, which aligns with KPMG's upper bound estimate. This alignment would appear to validate both approaches.

We are therefore in agreement with KPMG that a reasonable range for the unlevered beta in AMP8 is 0.28-0.35, implying a value of 0.63-0.71 for the equity beta.

The choice of the point estimate for the cost of equity should “aim up” to reflect uncertainty and maintain investment incentives

We welcome Ofwat's decision to aim up on the cost of equity. As we indicated in our FBP, aiming up is warranted in the context of parameter uncertainty, together with the well-rehearsed observation that greater harm to consumers can be expected from an underestimation of allowed returns compared to overestimation.

PR24 is very different to PR19 and other precedents. There is considerable evidence to suggest that the cost of equity under the DD is insufficient relative to the cost of debt. There are several possible causes of this issue, and so it is not possible to fully address the issue within any single parameter. As such, we consider that it is appropriate to address this issue through aiming up. This is consistent with the CMA's guidance at PR19, which indicated that asymmetry in parameter estimates might warrant such aiming up. We consider that this is the case in PR24.

The DD does not include aiming up to reflect asymmetry in the price control, on the grounds that any asymmetry that might have existed under the FM methodology has now been adequately addressed through additional risk mitigations in the DD. As we demonstrated above, there is in fact significant

downside risk remaining under the DD. However, precedent (particularly the CMA PR19 FD) suggests that such asymmetry is best addressed at source, rather than within the point estimate for the cost of equity.

In our FBP, we proposed to aim up by 15bps on the cost of equity to take account of parameter uncertainty and the importance of investment incentives in maximising consumer welfare. We do not directly comment on the degree of aiming up in the DD, and do not currently propose a point estimate for the cost of equity or the allowed return. However, we consider that the evidence we set out below presents a strong case for aiming towards the top of the range. As we discuss below, we consider that asymmetric risk should be addressed through other mechanisms than aiming up.

14.4.5 The cross-checks on the cost of equity indicate that the cost of equity remains too low

Alongside our FBP, we submitted evidence demonstrating that the cost of equity proposed in the FM was highly likely to be too low overall, and particularly compared with the cost of debt. The DD challenges such evidence and concludes that it does not call into question the proposed cost of equity. In short, we do not agree and consider that the submissions continue to provide compelling evidence that the cost of equity remains too low for the following reasons. We have also conducted an additional cross-check through an analysis of hybrid bonds.

The critique of the multifactor models contains a range of flaws

KPMG have, on our behalf, addressed Professors Robertson and Wright's submissions in respect of their multi-factor model analysis [that calls into question whether the cost of equity is too low]. KPMG's response is set out in ANH_DD_067 Cost of Equity report. In summary:

- Analytical and data improvements have been made since the FBP that address some of the challenges put forward;
- Professors Robertson and Wright employ diagnostic approaches that deviate from established academic methodologies in their evaluation of the performance of multifactor models. These approaches are applied without acknowledgement or commentary on the tests already been employed by KPMG and which demonstrate that the q-factor model exhibits superior empirical performance compared to CAPM; and
- The CAPM itself would not satisfy the criteria that Professors Robertson and Wright have applied in their evaluation of multifactor models.

KPMG also highlight certain technical flaws. For example, Professors Robertson and Wright state that some individual factor coefficients are not statistically significant and suggest that the corresponding independent variables should be

excluded. However, they do not address the fact that the exclusion of independent variables known to be correlated with both other independent variables and the dependent variable in the statistical model will result in omitted variables bias. It is therefore far from obvious that the exclusion of statistically insignificant variables is appropriate.

Given KPMG’s assessment, we continue to view its Multifactor Model analysis as indicative of a CAPM cost of equity value that is too low.

The critique of the inference analysis mischaracterises its role as a cross-check

KPMG have, on our behalf, addressed Professors Wright and Mason’s inference analysis that also calls into question whether the cost of equity is too low. KPMG’s response is set out in ANH_DD_067 Cost of Equity report.

Their primary objection is that KPMG’s inference analysis “bypasses” asset pricing models and makes restrictive assumptions regarding the nature of the relationship between the debt risk premium and equity risk premium. These objections appear to misunderstand the purpose of a cross-check. An inference analysis does not constitute an asset pricing model itself, precisely because it is being used to sense-check an asset pricing model (namely, the CAPM). It seems disingenuous to criticise a cross-check on this basis.

Given KPMG’s assessment, we continue to view the inference analysis as indicative of a CAPM cost of equity value that is too low.

The critique of the comparison of asset and debt risk premiums ignores the key fact that investors would have no incentive to invest in equity given the proximity with the cost of debt

We do not comment directly on the views expressed by Professors Wright and Mason in respect of the ARP-DRP analysis since these arguments are ultimately attempting to use complex reasoning to explain away a simple and obvious fact, no investor can reasonably be expected to take on the additional risk of investing in water company equity compared with investing in new debt in exchange for the additional return on offer in the DD.

We also do not agree that this comparison can be explained away on the basis of inconsistent inflation estimates. The forecast cost of debt for the water sector is 4.02%, compared with a point estimate for the cost of equity implied by the DD of 4.80%. We have updated our comparison of the cost of new debt and cost of equity in figure below:

Figure 38 Updated view of cost of equity vs cost of new debt



We have also updated the estimate of the ARP and DRP based on the DD, and included an additional datapoint that updates the DD for data up to our June 2024 cut-off date. We estimate that the ARP as implied by the DD is 1.68%¹²⁹ compared with a DRP of 1.63%.¹³⁰ This wedge remains implausibly low, particularly when it is considered that the DRP would be higher at higher levels of leverage.

An analysis of hybrid bonds provides further evidence that the cost of equity in the DD is too low

We have developed new analysis that further underscores the understatement of the cost of equity under the FM and DD. Specifically, we have asked Frontier Economics to examine the equity return by hybrid bonds issued by water companies and other regulated businesses. Their conclusions, set out in ANH_DD_068 Hybrid Bonds clearly point to a considerably higher equity return than is proposed in the DD.

Although the DD has attempted to explain and address each source of evidence, we consider that the interpretation of the totality of this evidence is clear. Each cross-check consistently points to a cost of equity that is too low overall.

14.4.6 There should be no adjustment to the retail margin

A retail margin of 1.2% has been retained in the DD. We do not dispute this value in these Representations. In addition to setting a retail margin, the DD applies a downward adjustment to the Appointee allowed return when setting the Wholesale allowed return. The motivation for this adjustment is set out in the DD as follows:

¹²⁹ Based on the asset beta of 0.33 and ERP of 5.37% implied by the DD range.

¹³⁰ Based on the Draft Determination cost of new debt for the sector of 3.36% less the Draft Determination risk free rate of 1.43% and the expected loss on debt of 0.30%, as estimated in Schaefer and Feldhuetter (2018).

“to avoid double counting compensation for systematic retail risks. Because we set allowed returns at the level of the appointee using data which captures risk from all controls (including retail), we need to adjust this allowed return to reflect that systematic retail risk is also remunerated via the retail margin. The retail margin adjustment is therefore based on the part of retail margin revenues not assigned to financing fixed capital costs and working capital.”¹³¹

The approach used to estimate the retail margin adjustment largely follows the methodology set out in the FM. There is little or no discussion in the DD. No reference or comment is made in respect of company representations, including Anglian’s which provided a detailed and extensive discussion of this issue that has been ignored in its entirety. As a consequence, the flaws we previously highlighted in respect of Ofwat’s approach to the calculation of the retail margin adjustment remain unaddressed.

We reiterate the following elements that are relevant to the calculation adjustment with which we disagree, and collectively serve to reduce the estimated retail margin adjustment to zero.

Creditor balances should not be included in retail working capital

First, as stated in our FBP, it is not appropriate to include creditor balances within the retail working capital value (The magnitude of retail working capital). The retail business cost base relates to personnel, IT equipment and office space, none of which include significant creditor balances. The trade creditor balance is therefore a wholesale balance and largely relates to the short-term timing impact of payments for wholesale opex and the large capital programme. Excluding creditor balances, and updating for the latest FD model values, increases the sector-wide annual working capital requirement from £947m to £3,052m.

The required return on retail working capital and fixed assets should be assumed as equal to the cost of equity.

Second, the required return on retail working capital should be assumed to be equal to the appointee cost of equity. We have updated our previous estimate of the required return on both fixed assets and working capital. We agree with the Draft Determination view that fixed assets should attract the Appointee allowed return. However, we disagree with the use of the trimmed average cost from the PR19 resubmitted business plans as a basis for estimating the required return for retail working capital.

The Appointee business includes all retail assets, and it is not straightforward to disentangle the required return for retail working capital from the rest of the RCV. Indeed, if it is assumed that retail working capital attracts a lower required return than the Appointee allowed return, then it follows that the wholesale business

must include other capital elements that should attract a higher required return. In short, there is no valid reason why the separate remuneration of retail working capital should reduce the allowed return for the appointee business as a whole. As such, we consider that the appropriate required return estimate for retail working capital is the Appointee allowed return.

These corrections to the methodology mean that no retail margin adjustment is necessary

As demonstrated in the Table below, no retail margin adjustment should be applied to the Appointee allowed return after applying the following amendments to address the points above, namely: (A) an increase in the working capital requirement to reflect the removal of creditor balances; and (B) an increase in the required return on fixed assets and working capital from 5.35% and 3.06% respectively to the DD Appointee allowed return of 5.79%.

Table 26 Estimated value of the retail margin adjustment

Component (2020-25 average)	Calculation	Source	Value (£m/%) -
Fixed asset balance for retail controls	A	FD models	243
Cost of financing fixed assets	B	DD Appointee allowed return	5.79%
Required revenue for return on retail fixed assets	C= (A xB)	-	14
Debtor balance	D	FD models	2,258
Creditor balance	E	FD models	0
Measured Income Accrual	F	FD models	2,270
Advance receipts	G	FD models	1,476
Annual working capital requirement	H = D+E+F+G		3,052

¹³¹ Allowed return appendix, p91

Component (2020-25 average)	Calculation	Source	Value (£m/%) -
Working capital financing rate	I	DD Appointee allowed return	5.79%
Required revenue for return on working capital	$J = H \times I$		177
Total retail-specific capital costs	$K = C + J$		191
Retail margin allowed revenue apportioned to households.	L	FD models	188
Required return for retail systematic risk	$M = L - K$		-3
Average RCV (2020-25)	N	FD models	130,815
Retail margin adjustment	$O = M / N$		-0.00%

14.5 The notional company will be financeable under the DD settlement provided it meets its baseline targets but will not be financially resilient

- We have assessed the financeability of the notional company as well as the financial resilience of the notional company for both the settlement proposed by the DD and the settlement that would result from implementation of our Representations.
- On the basis of our assessment, the notional company should retain a comfortable investment-grade rating under both the DD settlement and under our Representations in AMP8, provided the company meets its baseline targets.
- The notional company is, however, unlikely to be financially resilient on the basis of the DD settlement since it would be unlikely to maintain a sufficient AICR ratio for each of the years in AMP8.
- The PAYG rates will need to be adjusted in accordance with the ultimate totex settlement. We have set out the necessary adjustments below to match our PAYG rates with the totex settlement set out in these Representations.

We have considered the ability of the notional company to maintain a comfortable investment grade credit rating under the DD settlement and under the settlement proposed in our Representations. We have also considered financial resilience, which refers to the ability of the notional company respectively to maintain an investment grade (but not necessarily “comfortable” investment grade) credit rating. We also address the need to adjust our PAYG rates to reflect our Totex submissions.

14.5.1 The DD proposals

The notional company should retain a comfortable investment grade rating in AMP8 provided it meets its baseline targets

Our assessment finds that the notional company should retain a comfortable investment-grade credit rating in AMP8 where it is able to meet baseline targets. We note that the FFO/net debt ratio comes under pressure in some years. We also note that gearing is permitted to increase to 57.5% by the end of the period. The

gearing threshold set out by credit rating agencies for a Baa2/BBB credit rating is 55%, so if this elevated gearing level was to be sustained, this could place downward pressure on the rating.

The scale of the required equity injection has reduced considerably to £170m (compared to £613m in our FBP). This reduction is largely attributable to the higher allowed return in the DD relative to the FM, together with the permitted increase in the notional company's gearing.

Table 27 Notional company credit metrics from DD

	Units	2025-26	2026-27	2027-28	2028-29	2029-30	2025-30	Threshold
AICR	ratio	1.61	1.74	1.80	1.68	1.58	1.68	1.50
FFO/net Debt	%	9.81	10.23	10.58	9.96	9.51	10.00	10.00
Gearing	%	55.8	55.8	55.1	56.0	57.4	55.8	55.0%
Net equity cashflows	£m ¹	102.0	108.7	(68.7)	126.9	134.7	102.0	n/a

¹ CPIH-real, 2022-23 prices

The DD does not appear to have taken into account the impact of contingent and gated allowances, that only provide revenue with a delay relative to when the corresponding costs are incurred. This is likely to have a negative impact on credit metrics in the later years of AMP8. We would suggest that Ofwat update its assessment to reflect the cashflow impact of these allowances.

The notional company is unlikely to be financially resilient

We have examined whether the Draft Determination enables the notional company to be financially resilient under scenarios based on P10 outcomes calibrated using the analysis of risk conducted by KPMG. We have based our assessment on the "rebased" scenarios set out in ANH_DD_085 PR24 risk analysis for a notional company at PR24. The results are summarised in the following tables.

Table 28 AICR for the notional company under P10 scenarios

	2026	2027	2028	2029	2030	Average	Threshold ¹
Totex	1.50	1.46	1.42	1.37	1.32	1.41	1.30
Retail	1.40	1.37	1.33	1.29	1.25	1.33	
ODI Penalty	0.90	0.87	0.84	0.80	0.77	0.84	
Opex	1.41	1.39	1.35	1.32	1.28	1.35	
Capex	1.68	1.64	1.60	1.55	1.49	1.59	
Combined	0.86	0.82	0.78	0.74	0.70	0.78	

¹ We apply the Moody's threshold for Baa3 for this metric

The notional company in this instance represents the AMP7 outcome distributions for the median WaSC applied stochastically to our AMP8 forecasts, assuming that these are achievable in the base case.

The notional company encounters significant pressure on the AICR metric under downside scenarios. P10 ODI penalties in particular drive AICR values that are unlikely to be compatible with an investment grade credit rating. This metric also comes under pressure in at least some years under a number of other scenarios.

Table 29 FFO/net debt for the notional company under P10 scenarios

	2026	2027	2028	2029	2030	Average	Threshold ¹
Totex	9.3%	8.9%	8.5%	8.1%	7.8%	8.5%	6.0%
Retail	8.9%	8.6%	8.3%	8.0%	7.7%	8.3%	
ODI Penalty	6.9%	6.5%	6.1%	5.7%	5.3%	6.1%	
Opex	9.0%	8.7%	8.4%	8.1%	7.8%	8.4%	
Capex	10.0%	9.6%	9.2%	8.9%	8.5%	9.2%	
Combined	6.7%	6.2%	5.7%	5.3%	4.9%	5.7%	

¹ We apply the Moody's threshold for Baa3 for this metric

The notional company in this instance represents the AMP7 outcome distributions for the median WaSC applied stochastically to our AMP8 forecasts, assuming that these are achievable in the base case.

FFO/net debt would not come under significant pressure under any single scenario. The threshold for Baa3 is breached in the final two years of AMP8 under a P10 ODI penalty outcome, and for the final three years under a combined P10 outcomes.

Regardless of the FFO/net debt values, the AICR values in AMP8 under plausible downside scenarios suggest that the notional company cannot be considered financial resilient under the DD. This is particularly due to exposure to ODI penalties under a P10 outcome.

14.5.2 Our proposals in these Representations

We have also carried out financeability and financial resilience testing on the risk-reward package entailed by our Representations. We set these out below:

The notional company should retain a comfortable investment grade rating in AMP8 provided it meets its baseline targets

Our assessment suggests that the notional company will be able to achieve credit metrics consistent with a comfortable investment grade credit rating in AMP8 where it is able to meet baseline targets. In conducting this assessment, we have used the RCV run-off rate set out in the DD and the natural PAYG rate used in our Representations. We also have assumed a higher equity injection than implied by the DD, largely because we restrict gearing to 55% throughout the period.

Table 30 Notional company credit metrics based on our representations

	Units	2025-26	2026-27	2027-28	2028-29	2029-30	2025-30	Threshold ¹³²
AICR	ratio	1.72	1.71	1.70	1.70	1.70	1.72	1.50
FFO/Net Debt	%	10.3	10.1	10.1	10.1	10.2	10.2	10.3
Gearing	%	55.0	55.0	55.0	55.0	55.0	55.0	55.0
Net equity cashflows ¹	£m	64.7	70.2	(97.2)	(147.3)	(128.7)	(238.3)	n/a

¹ CPIH-real, 2022-23 prices

¹³² We apply the Moody's threshold for Baa3 for this metric

¹³³ The notional company in this instance represents the AMP7 outcome distributions for the median WaSC applied stochastically to our AMP8 forecasts, assuming that these are achievable in the base case

As with the DD assessment, we have not been able to take into account the impact of contingent and gated allowances. These are likely to have a negative impact on credit metrics in the early years of AMP8.

14.5.3 The notional company is unlikely to be financially resilient

We have also considered whether the notional company ¹³³ will be financially resilient under our Representations based on P10 outcomes calibrated using the analysis of risk conducted by KPMG. As previously, we have based our assessment on the "rebased" scenarios set out in ANH_DD_085 PR24 risk analysis for a notional company at PR24.

Table 31 AICR for the notional company under P10 scenarios

	2026	2027	2028	2029	2030	Average	Threshold ¹
Totex	1.51	1.47	1.41	1.34	1.29	1.40	1.30
Retail	1.41	1.37	1.32	1.26	1.21	1.32	
ODI penalty	1.30	1.27	1.22	1.17	1.12	1.21	
Opex	1.42	1.39	1.34	1.29	1.24	1.34	
Capex	1.70	1.65	1.59	1.52	1.45	1.58	
Combined	1.22	1.18	1.12	1.07	1.02	1.12	

¹ We apply the Moody's threshold for Baa3 for this metric

Table 32 FFO/net debt for the notional company under P10 scenarios

	2026	2027	2028	2029	2030	Average	Threshold
Totex	9.3%	8.8%	8.3%	7.8%	7.4%	8.3%	6.0%
Retail	9.0%	8.6%	8.1%	7.6%	7.3%	8.1%	
ODI penalty	8.5%	8.1%	7.7%	7.2%	6.9%	7.7%	
Opex	9.0%	8.7%	8.2%	7.7%	7.4%	8.2%	
Capex	10.0%	9.6%	9.0%	8.5%	8.1%	9.0%	
Combined	8.2%	7.7%	7.1%	6.6%	6.2%	7.2%	

14.5.4 Adjustments to our PAYG rates to match our totex programme

As summarised in the table below, we have updated our PAYG rates to reflect our latest Totex submission such that the split of Opex and Capex (net of Grants and Contributions and excluding “Contingent Funding”) in this submission is reflected in a natural rate for PAYG for each price control

Table 33 Comparison of PAYG rate assumptions in the DD and DD reps

	Water Resources	Water Networks+	Wastewater Network+	Bioresources
Ofwat DD (total AMP8)				
Opex (£m)	349.30	1,305.70	1,502.80	364.96
Capex (£m)	275.30	1,382.68	2,703.58	318.42
PAYG rate (average AMP)	55.92%	48.57%	35.73%	53.41%
DD Reps (Total AMP8)				
Opex (£m)	285.85	1,539.15	1,645.99	331.46
Capex (£m)	174.19	1,969.24	3,183.22	328.63
PAYG rate (average AMP)	62.14%	43.87%	34.04%	50.21%

For some price controls, the Totex changes requested in our Representations have a material impact on the PAYG rates. The FD can further impact the relevant PAYG natural rates (depending on which elements of the DD Reps are applied in the FD were Ofwat not to apply our Representations in full). For instance, to take an extreme position where the FD allowed our proposed opex position but retained the DD capex position for Water Network+ above, there would be the following outcome.

Table 34 Comparison of Water Network+ AYG rates in DD vs DD Reps

Water Network+	DD	DD Reps	Example FD
Opex	1,305.70	1,539.15	1,539.15
Capex	1,382.68	1,969.24	1,382.68
PAYG rate (average AMP)	48.57%	43.87%	52.68%

If instead of using the correct natural rate PAYG of 52.68% either the DD PAYG rate of 48.57% or the DD Reps PAYG rate of 43.87% were applied the underfunding of opex over AMP8 would be either £120m or £257m respectively. This would have a material impact on the financeability of the notional company.

If Ofwat makes any further changes to our Totex submission it is thus crucial that these are also reflected in the final PAYG rates, such that they continue to reflect the natural rate for each price control.

14.6 Our views on the new proposed financial mechanisms

- The proposals to restrict dividends by companies with gearing above 70% represent an unjustified limitation on companies’ ability to determine their own capital structures, are not necessary given Ofwat’s 2023 financial resilience licence modifications and, in any case, should not be dealt with under PR24.
- We also disagree with the proposed Delayed Delivery Cashflow Mechanism (DDCM): the DD already contains sufficient mechanics to incentivise companies to efficiently spend their enhancement expenditure. The DDCM also carries a significant risk of companies being impermissibly penalised twice for the same enhancement expenditure issues.
- We agree with Ofwat’s proposals to introduce the possibility of funding for equity issuance.

The DD also put forward three proposals: a consultation on different mechanisms concerning dividend payments by companies with gearing above 70%; the proposed DDCM which would claw back revenue in the event of a material underspend of enhancement expenditure; and a consultation on an option for funding equity issuance.

14.6.1 The proposals restricting dividend payments by companies with gearing above 70% are not justifiable and in any case should not be advanced through PR24

The DD proposes three alternative, new mechanisms concerning dividends that would apply to companies with gearing above 70%, namely:

- Revised dividend guidance that companies with gearing beyond 70% would be expected to restrict dividends in the 2025-30 period;
- Amendment of companies' ring-fencing licence conditions to place a restriction on the company's ability to make distributions where gearing exceeds 70%; or
- A downwards adjustment to the RCV for companies with more than 70% gearing that pay dividends, implemented at a subsequent price review.

We do not consider that there is any justification for the proposals nor does the price control represent the appropriate regulatory process to introduce them.

- First, the proposed value of 70% is essentially arbitrary, and no evidence is presented to suggest that consumer welfare is materially harmed when companies' leverage reaches this level, let alone sufficient evidence to justify deviating from the longstanding regulatory principle that companies remain free to determine their capital structures.
- Second, the proposals, even if merited, are unnecessary. The gearing threshold for a BBB+ rated company is 70%. The threshold for dividend lock-up has only recently been tightened from BBB-/Baa3 (neg outlook) to BBB/Baa2 (neg outlook). As such, further restrictions on dividends about a 70% level would represent further tightening to BBB+/Baa1: in effect penalising companies for departing from the notional company credit rating by a single notch. This represents an excessive restriction on companies' financial policy and one which is unnecessary given that Ofwat only modified companies' licences in 2023 to tighten the conditions on dividend lock up to protect financial resilience.
- Third, the price control is an inappropriate regulatory process to introduce such changes, since they go significantly beyond the price control process itself. If Ofwat is minded to pursue such proposals, it should do so through consultation outside of PR24 (particularly since at least one of the proposals entails further licence modifications).

Ofwat should therefore not pursue such proposals in the context of PR24. If it is minded to continue, it should do so outside the scope of the price control.

14.6.2 The delayed delivery cashflow mechanism is not justified and should not be inclined in the FD

The DD proposes to claw back a proportion of the revenue provided to date, and to remove any associated revenue within the allowed return and RCV run-off from future years, where there is material underspend of enhancement expenditure.

The DDCM is unnecessary and runs the risk of companies being penalised twice for the same issue. There is already a time value of money adjustment within the totex allocation mechanism that effectively performs the intended function of the DDCM. Moreover, there is a risk that the application of this mechanism could interact with other existing mechanisms such as PCDs to inappropriately penalise companies twice for material underspend of enhancement expenditure.

We therefore disagree with the implementation of the DDCM.

14.6.3 We support the proposals concerning funding for new equity issuance

The DD proposes that the price control could provide funding for the costs of obtaining an equity listing. This would be implemented through a log-up of costs to the RCV at PR29. We consider that this proposal both appears reasonable and may help to support an additional option for equity issuance in AMP8.



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