TMS-DD-039: Thames Water PR24 DD response – Outcomes

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Executive Summary

Our view on the Draft Determination for Outcomes

We have listened carefully to Ofwat's feedback on our performance and its proposals for PR24. We have been through a rigorous process to re-interrogate our plans and have stretched ourselves to deliver as much as possible.[1]

We have dramatically improved our performance in key areas during PR19. We are pleased that we can accept many of the Draft Determination proposals, including many of the water PCs, where our performance has materially improved in recent years. We expect to remain an industry leader in a number of performance areas.[2]

However, there are several Performance Commitments, primarily in wastewater, where it is unrealistic for us to even come close to achieving the targets proposed in the Draft Determination. Ofwat has used the target AMP7 exit point as the baseline for several PCLs. This is unrealistic, not just for Thames Water, but across the industry as many companies have not achieved their targets in 2023/24 and will not realistically achieve the PR19 targets in 2024/25.[3]

We are acutely aware there remain some common PCs where our performance is below target and must improve. Our business plan will show improvement in these metrics. However, we are a company in turnaround and Ofwat's current proposals are unachievable and in places punitive, exposing us to disproportionate penalties, double jeopardy and excessive downside risk that impacts our investability. Aside from facing potential penalties from the Outcomes regime, we have strong legal obligations to improve our performance across different areas. Very poor performance would result civil penalties from the Environment Agency.

A price control package which is efficient and in customers' interests also needs to be deliverable and developed in a way that ensures each company is able to properly carry out its licensed activities and statutory functions. We are striving to improve even further in PR24 than we have in PR19[4], but the level of stretch Ofwat proposes to apply would result in a substantial financial penalty. We still expect to be in net penalty, even if all our proposed mitigations are accepted. We understand that all companies currently expect to be in net penalty across common PCs in AMP8.[5]

Our Business Plan is very stretching but deliverable. We have sought to engage constructively with the Draft Determination proposals.

Both the original October 2023 Business Plan and April 2024 update reflect an ambitious level of performance improvement. Leakage is a good example of a Performance Commitment where

[1] See detailed sections on Leakage and External Sewer Flooding.
[2] For example, based on our analysis of company submissions and our latest forecasts, we expect to be upper quartile for sewer collapses, unplanned outages and water quality contacts.
[33] We note that only three companies hit their 2023/24 target for internal and external sewer flooding. Only Hafren Dyfrdwy hit their target for total pollution incidents, who are not subject to the common PCL, with every other company in penalty.
[4] By 2029/30 our performance in key areas such as supply interruptions, Internal Sewer Flooding and total pollution incidents will be better than the industry historical median performance in many cases upper quartile.
[5] Based on our analysis of Business Plans and the draft determinations, and discussions in relevant industry forums in August 2024.

we have submitted ambitious plans in our October 2023 Business Plan and have submitted even more stretching ambitions in the April 2024 update.

Overall, we have put forward in our plan a realistic assessment of the performance improvement we can achieve and the costs associated with that improvement. The P50 targets were created in collaboration with our Engineering and Asset and Operational teams, using their expert understanding of the challenges of our asset base, as well as comparison to other companies.[6] It requires us to improve more than ever before, with large percentage improvements. Where we have made updates to specific parts of our proposed performance levels, it is discussed in the relevant section of this document. Given we are in turnaround, and will be operating under a monitor, it is appropriate that our business plan performance levels should form the basis of our target between now and 2030, and all available investment channelled towards performance improvement rather than penalties.

We understand Ofwat may choose to set some targets to align to Government ambitions or to use a common industry level. We are therefore responding constructively to the proposals included in the Draft Determination, with alternative proposals that would align to Ofwat's PR24 methodology but would be less punitive.

Where the Draft Determination is relatively close to or aligned with our Business Plan, we accept the Draft Determination. In other areas, we propose targeted amendments to Ofwat's proposals. These will mitigate some of the impacts and make PR24 a fairer and more balanced determination for Thames Water, taking into account the differences in our region and our operational reality. Naturally, we do not anticipate rewards in areas where we are not yet outperforming – and overall, we expect to be in penalty. But an unbalanced outcomes price control package will not catalyse the turnaround.

Target levels are not based on the best available evidence

Ofwat's proposed starting point for performance targets is often the targets for 2024/25 which were set in 2019 as part of PR19. We now have five more years of evidence. In some cases. This evidence supports these targets being appropriately stretching. But for others the evidence is clear that most companies have struggled to meet them with the funding provided – they were overly stretching. Except two companies, all companies are in net penalty on common ODIs at PR19. In 2023/24 our net penalty stood at around £38.6m despite vast improvements in performance in different areas including Leakage, CRI and Mains Repairs.[7]

Ofwat must consider the five years of evidence for PR19 and set an appropriately stretching but deliverable target based on how companies are actually performing, not a target level set in 2019 which by definition could only use the data available at that point in time.

Ofwat has taken the median of PR24 Business Plan submissions for many 2029/30 targets. However, it is important to note that many companies' Business Plan submissions are optimistic and may not be deliverable, making even the median target level difficult to achieve. The median target is still a median of optimistic stretch levels and in some cases is not appropriate as a common industry standard. Our unique operating environment makes this even harder.

We propose using more realistic starting points for Thames Water and the industry as a whole for Performance Commitments such as External Sewer Flooding, Total Pollution Incidents, Serious Pollution Incidents, and Leakage, while still setting stretching enough targets for companies to be incentivised to improve performance.

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[6] See Section 4 of this document

[7] Source: FY24 Financial Statement Page 12

The Outcome Delivery Incentives are disproportionately large. The methodology can be better aligned to the intent of the PR24 Final Methodology.

We also consider there is scope for Ofwat to revisit the calculations of some of the ODI components, to align the Draft Determination better to the PR24 Final Methodology. This includes incorporating the latest available 2023/24 data, leveraging a median industry unit rate to not unfairly penalise Thames Water for being a company with a large RCV We also propose applying an appropriate level of risk to PCCas we are heavily dependent on exogenous factors. This will ensure that the ODI rates reflect proportional penalties and that the incentives are better aligned to customer priorities.

More protection is needed against extreme downside risks and to ensure continued investment.

The high level of penalties across the package is a major contributor to making us an unattractive investment proposition, making it difficult to raise equity and invest which is ultimately detrimental to our customers. Ofwat must ensure that the price control package is aligned with its financing and growth duties, such that we can finance our licensed activities and statutory functions and secure the resilience of our systems over the longer-term. Therefore, alongside individual comments on the PCL that has been set in each instance, we propose additional caps and collars to mitigate some of the unduly onerous downside risk.

We consider that Ofwat's methodology materially understates the true downside case and does not reflect the risk profile we face in practice, particularly in wastewater. We propose Ofwat applies caps and collars to a wider range of PCs – when combined with other existing incentives this will make a material difference to our risk profile and financeability without harming companies, whilst still strongly encouraging us to improve our performance.

The water outcomes package is largely reasonable, but the targets for Water Supply Interruptions and PCC are overly stretching and unachievable.

We are broadly supportive of the package for water-related outcomes. We are challenging ourselves to dramatically improve and stretch ourselves more than ever before in leakage, and to catch-up where we have fallen behind. We have submitted a more ambitious plan for leakage. We do, however, have major concerns around the targets set by Ofwat for Water Supply Interruptions and for Per Capita Consumption which we detail later in this document.

The wastewater outcomes package is unrealistic and punitive.

For wastewater-related outcomes, we have challenged ourselves to be more ambitious. But even with an optimistic view of our future performance, the Draft Determination outcomes package still takes us to a net penalty of approximately £1.5 billion[8] on wastewater alone, due to targets that are wildly unrealistic for us to achieve. A large portion of this net penalty is driven by the £1.1 billion penalty for External Sewer Flooding, for which we request Ofwat to consider our resubmitted data and proposed target levels.[9]

The incentives attached to the Measures of Experience are disproportionately large.

We are also extremely concerned by the level of financial incentives attached to C-MeX, D-MeX and BR-MeX. Under the Draft Determination proposals these would be disproportionate in their scale for the best and worst performing companies, especially when combined with increased

[8] Pre-aggregate sharing mechanism.
[9] See our response to Ofwat request "TMS-APR-CA-001"

ODI rates for the underlying operational incidents which influence C-MeX scores. We also have methodological concerns on C-MeX, and request that it compares 'apples with apples'.

In this response, we lay out our case for targeted amendments to the Draft Determination for key PCs. We also discuss three cross-cutting issues: Assurance, ODI rates; and Caps and Collars. We also cover more minor points, including our bespoke PC on Streetworks Collaboration and respond to Ofwat's requests for additional information.

We are only seeking to make representations in areas where we consider the Ofwat challenge to be unrealistic, undeliverable, and/or not in the interests of our customers. When laying out our arguments, we have taken into consideration industry factors, Thames-specific factors and our position as a company in turnaround striving to improve across AMP8.

Performance levels for key PCs

- Water Supply Interruptions: Ofwat's proposed 5-minute target is driven by companies whose strong performance is due to advantageous local factors which is implausible for a large WaSC with a very complex network to consistently replicate. The target does not reflect the best available evidence for the industry overall or for Thames Water specifically. Several companies raised this concern in PR19 and noted that the proposed target was driven by overly optimistic WoCs' forecasts. We also note no WaSC met its PCL for 2023/24. We propose reintroducing the cap on large events that was used in AMP6, or instead setting a common PCL for WaSCs calculated based on the upper quartile of historical WaSC performance.

- Leakage: Ofwat has requested Thames Water to set an even more ambitious Leakage target. In line with this request, we have increased our level of ambition – we will aim to reach 407.7 Ml/d by the end of AMP8 instead of 411.0 Ml/d. However, our latest forecast for Leakage level at the end of AMP7 (2024/25) increased from 507.4 Ml/d to 527 Ml/d due to extreme weather events in 2022/23. We are making stretching efforts to reduce our Leakage level and still aim to reach 407.7 Ml/d target by the end of AMP8. However, we propose to adjust the PCL glidepath in AMP8 accordingly with the updated forecast of our Leakage level, from 527 Ml/d at the end of AMP7 to 407.7 Ml/d by the end of AMP8. Without adjusting the PCL set in the Draft Determination, we would face disproportionately punitive penalties and risk not achieving our Leakage targets every year of AMP8.

- Per Capita Consumption: Ofwat's proposed PCC targets during the early years of AMP8 have not adequately accounted for the proven[10] effects of Covid in AMP7 and the expected continuation of remote working through AMP8. Additionally, the proposed PCL is based on data from WRMP which assumes potential Government policy initiatives come to successful fruition, and therefore places the risk of these policy contributions being successful with Thames Water. We propose amending the target to use the best available evidence (2.7% adjustment) of the impact of Covid and including a conditional deadband so we are not held responsible for whether Government introduces new policies.

- Business Demand: Ofwat's proposal ignores our high-quality evidence on future underlying growth in business demand for water. This results in an implausible target level. We are happy to accept challenging targets to improve our performance, but should not be penalised for broader economic growth and trends in our region, such as the increase in data centres (which have an extremely large operational demand for water).

[10] See detail in the PCC section of this document.

- Internal Sewer Flooding: The PCL should be adjusted to recognise the evidence from PR19 on realistic performance improvements. Between 2016/17 and 2023/24 it has been rare for companies to reach the 2024/25 target of 1.34 incidents per 10,000 connections.[11] In 2023/24, only three companies achieved this performance level. The starting point, and trajectory, should reflect the available evidence on what improvements are possible.
- External Sewer Flooding: Ofwat has not yet accepted our revised historical data. We are providing substantial additional information including further assurance from PwC to explain these revisions, which we submitted on 1st August 2024. This is a new financial Performance Commitment for Thames Water, and so should have a cap/collar applied, consistent with Ofwat's methodology. On the basis that Ofwat accepts our corrected data, we propose a baseline for 2024/25 consistent with recent performance, and a glidepath putting us on the right track to a common industry standard by 2032/33.
- Total Pollution Incidents: Ofwat has proposed to set the target based on a 30% reduction of incidents based on WISER requirements. With this reduction it is expected that 9 of 11 companies will incur a penalty during AMP8. To mitigate such risk, we recommend Ofwat to set an alternative glidepath to better reflect the industry's starting point. Furthermore, Ofwat should consider implementing company-specific targets as there needs to be clear guidance on pollution classification to make sure this is applied consistently amongst companies. Also, there is a further risk that proposed changes in the EA classification guidance (CICS 16_02) will require all companies to reassess their PCLs.
- Serious Pollution Incidents: Ofwat has set a zero-tolerance target for serious pollutions and increased the ODI rate by 60% compared to the indicative rates in August 2023. We support the need for a zero target for serious pollution incidents, and will do everything in our control to work towards this target. However, even with our best endeavours, our outturn performance is unlikely to be zero, and cannot be less than zero. In the last 5 years 45% of our Serious Pollution Incidents were on assets which were not telemetered. Our plans to address this will take time. Furthermore, around 40% of our incidents were due to third party causes. The regulatory approach is also becoming more stringent. To mitigate this and ensure the zero target remains in place, we propose a deadband as a pragmatic solution, as is applied for CRI.
- C-MeX, D-MeX and BR-MeX: Ofwat has increased the size of incentives, with 0.5%, 0.25%, 0.2% maximum appointee level RoRE threshold respectively. While customer satisfaction is an utmost priority to us, we believe the risk exposure to penalties is disproportionate, especially given it applies to appointee RCV, not just water *or* waste as it does for other PCs. We propose Ofwat reduce the threshold for C-MEX and use the water RCV for D-MeX and BR-MeX reflecting the nature of the underlying activity. We also propose to use a league table of UKCSI's utilities rather than all-sector benchmarks for C-MeX, as customer service in monopolised utilities has a different set of challenges compared to other sectors.

Cross-cutting issues

- The ODI rates in Ofwat's Draft Determination have changed substantially from the indicative ODI rates published in August 2023. We suggest a number of amendments to Ofwat's performance range and ODI rate calculations.

[11] In 2022/23 four companies achieved this level or better. In every other year three or fewer companies achieved this level.

- Many PCs do not have caps and collars creating large additional financial exposure and, in some cases, double jeopardy. Using caps and collars more widely provides important additional financial protection without changing our incentives to improve for our customers;
- We consider that the assurance requirements outlined in the DD will add both unnecessary complexity and cost into AMP 8 reporting of outcomes. Our position is explained in TMS-DD-046 Thames Water PR24 DD Response - Reporting and additional requirements.

Structure of this document

In this chapter, we outline our response to Ofwat's Draft Determination on their approach to the Outcomes framework. The structure is as follows:

1. Summary of our Proposed Amendments to the DD
2. Cross-cutting Issue: Reporting and assurance of AMP8 performance commitments
3. Cross-cutting Issue: ODI Rates
4. Cross-cutting Issue: Caps and Collars
5. Water Supply Interruptions
6. Leakage
7. Per Capita consumption (PCC)
8. Business Demand
9. Internal Sewer Flooding
10. External Sewer Flooding
11. Total Pollution incidents
12. Serious Pollution Incidents
13. Discharge Permit Compliance
14. Measures of Customers' Experience (MeX)
15. C-MeX
16. D-MeX
17. BR-MeX
18. Biodiversity
19. Other common PCs
20. Streetworks bespoke PC

1. Overview of our proposed amendments to Ofwat's Draft Determination on Outcomes

In the Executive Summary we set out how our Business Plan is stretching and ambitious. We highlighted how aspects of the Draft Determination assume an unattainable level of performance improvement. As a result, this would trigger extreme penalties on some performance commitments. In this section we set out for each PC:

- Our revised Business Plan ambition;
- The Ofwat Draft Determination PCLs and associated expected financial penalty. This shows the extremely large financial consequences of the Draft Determination for Thames Water;
- An alternative set of PCLs, which we consider to be very stretching but more proportionate than the Draft Determination proposals while continuing to align to Ofwat's aims for individual PCs.[12] We also propose alternative ODI rates.
- The penalties associated with this modified package would still be severe, with an expected outturn of around £200m penalty across water and wastewater, plus any penalties on the measures of experience.

[12] For example, reaching a common industry performance level in External Sewer Flooding by 2033.

Figure 1 - Summary of our water-related Performance Commitments proposals

		Performance Commitment Level							
PC	Target	2025/26	2026/27	2027/28	2028/29	20/29/30	ODI rate	ODI Penalty	PC specific mitigation measures
Supply interruptions	Revised BP	10m 18s	10m 03s	09m 48s	09m 32s	09m 17s	-	-	Cap & Collar - 0.5% RORE
	Ofwat DD target	05m 00s	05m 00s	05m 00s	05m 00s	05m 00s	£1.73m	(£42m)	
	Alt. PCL	07m 31s	07m 31s	07m 31s	07m 31s	07m 31s	£0.99m	(£11m)	
Leakage	Revised BP	21.3%	26.5%	30.6%	33.8%	36.7%	-	-	None
	Ofwat DD target	24.4%	29.3%	32.7%	35.1%	37.1%	£6.13m	(£12.5m)	
	Alt. PCL	23.3%	27.5%	30.6%	33.8%	36.7%	£4.02m	(£11.9m)	
PCC	Revised BP	5.5%	6.0%	6.4%	6.7%	7.0%	-	-	Conditional Deadband
	Ofwat DD target	6.4%	7.4%	7.3%	7.5%	7.8%	£1.95m	(£38m)	
	Alt. PCL	5.5%	6.0%	6.4%	6.7%	7.0%	£0.94m	£-	
	Alt. Conditional Deadband	0.1%	0.3%	0.6%	0.8%	1.1%			
Business demand	Revised BP	10.4%	10.6%	11.1%	11.7%	12.3%	-	-	None
	Ofwat DD target	10.4%	11.5%	13.0%	14.5%	16.0%	£1.19m	(£22m)	
	Alt. PCL	10.4%	10.6%	11.1%	11.7%	12.3%	£1.11m	£-	
Customer Contacts	Revised BP	0.45	0.45	0.45	0.45	0.45	-	-	None
	Ofwat DD target	0.57	0.54	0.51	0.48	0.45	£68.58m	£21m	
	Alt. PCL	-	-	-	-	-	£67.75m	£21m	
Mains repairs	Revised BP	270.05	261.78	253.69	245.68	237.74	-	-	None
	Ofwat DD target	248.40	245.70	243.00	240.30	237.60	£0.24m	(£13m)	
	Alt. PCL	-	-	-	-	-	£0.23m	(£12m)	
Unplanned Outage	Revised BP	2.30%	2.26%	2.22%	2.18%	2.14%	-	-	None
	Ofwat DD target	2.30%	2.26%	2.22%	2.18%	2.14%	£9.26m	£22m	
	Alt. PCL	-	-	-	-	-	£8.80m	£-	
Biodiversity	Revised BP	0.00	0.00	0.00	0.32	0.44	-	-	None
	Ofwat DD target	0.00	0.00	0.00	0.15	1.97	£2.75m	(£4m)	
	Alt. PCL	0.00	0.00	0.00	0.32	0.44	£2.75m	£-	
Compliance risk index (CRI)	Revised BP	1.83	1.67	1.50	1.50	1.50	-	-	None
	Ofwat DD target	0.00	0.00	0.00	0.00	0.00	£3.33m	£-	
	Ofwat Deadband	1.83	1.67	1.50	1.25	1.00	£2.43m	(£2m)	
	Alt. PCL	1.83	1.67	1.50	1.50	1.50			
Operational GHG (Water)	Revised BP	180k	180k	181k	181k	181k	-	-	None
	Ofwat DD target	155k	155k	154k	153k	148k	£188	(£4m)	
	Alt. PCL	180k	180k	181k	181k	181k	£188	£-	
Total Penalty	Ofwat DD target							(£90m)	
	Alt. PCL							(£17m)	

Figure 2 - Summary of our wastewater-related Performance Commitments

		Performance Commitment Level							
PC	Target	2025/26	2026/27	2027/28	2028/29	2029/30	ODI rate	ODI Penalty	PC specific mitigation measures
Internal Sewer Flooding	Revised BP	1.82	1.72	1.66	1.61	1.56	-	-	None
	Ofwat DD target	1.31	1.29	1.24	1.20	1.16	£38.63m	(£82m)	
	Alt. PCL	1.74	1.67	1.60	1.53	1.45	£36.01m	(£14m)	
External Sewer Flooding	Revised BP	22.08	21.30	20.81	20.35	19.93	-	-	No upside
	Ofwat DD target	9.16	9.16	9.16	9.16	9.16	£14.35m	(£1130m)	
	Alt. PCL	21.92	20.72	19.51	18.31	17.10	£5.35m	(£37m)	
Total Pollution Incidents	Revised BP	31.66	29.54	27.53	25.60	23.32	-	-	None
	Ofwat DD target	18.33	17.16	15.99	14.82	13.65	£3.99m	(£230m)	
	Alt. PCL	27.86	26.08	24.30	22.52	20.75	£2.58m	(£42m)	
Serious Pollution Incidents	Revised BP	16	16	16	16	16	-	-	Set a Deadband
	Ofwat DD target	0	0	0	0	0	£1.75m	(£47m)	
	Alt. Deadband	5	5	5	5	5	£1.68m	(£93m)	
Discharge Permit Compliance	Revised BP	100.0%	100.0%	100.0%	100.0%	100.0%	-	-	None
	Ofwat DD target	100.0%	100.0%	100.0%	100.0%	100.0%	£5.86m	£-	
	Alt. PCL	-	-	-	-	-	£3.80m	£-	
Sewer Collapses	Revised BP	3.89	3.89	3.89	3.89	3.89	-	-	None
	Ofwat DD target	3.97	3.94	3.91	3.88	3.85	£9.26m	£1m	
	Alt. PCL	-	-	-	-	-	£8.76m	£1m	
Bathing Water Quality	Revised BP	33.3%	33.3%	33.3%	33.3%	55.3%	-	-	None
	Ofwat DD target	50.0%	50.0%	50.0%	50.0%	66.5%	£0.13m	£-	
	Alt. PCL	33.3%	33.3%	33.3%	33.3%	55.3%	£0.13m	£-	
Storm overflows	Revised BP	24.31	21.27	19.95	19.77	17.07	-	-	None
	Ofwat DD target	20.00	18.55	17.10	15.65	14.21	£0.37m	(£6m)	
	Alt. PCL	-	-	-	-	-	£0.34m	(£6m)	
River Water Quality	Revised BP	0.05	0.05	0.08	0.14	0.19	-	-	None
	Ofwat DD target	0.05	0.05	0.08	0.17	0.21	£0.00m	£-	
	Alt. PCL	0.05	0.05	0.08	0.14	0.19	£0.00m	£-	
Operational GHG (Waste)	Revised BP	395k	391k	386k	381k	373k		-	None
	Ofwat DD target	379k	375k	371k	365k	357k	£188	(£4m)	
	Alt. PCL	395k	391k	386k	381k	373k	£188	£-	
Total Penalty	Ofwat DD target							(£1498m)	
	Alt. PCL							(£190m)	

Figure 3 - Summary of our maximum penalty exposure relating to customers' experience PCs

PC	Option	Proposed % RoRE threshold	Maximum ODI Penalty exposure over AMP8	Maximum ODI penalty exposure per annum)	Further mitigation measures
C-MeX	Ofwat	0.50% at appointee RCV's level	(£226m)	(£45m)	None
	Alt. proposal	0.25% at appointee RCV's level	(£113m)	(£23m)	
D-MeX	Ofwat	0.25% at appointee RCV's level	(£113m)	(£23m)	None
	Alt. proposal	0.25% at water RCV's level	(£58m)	(£12m)	
Br-MeX	Ofwat	0.20% at appointee RCV's level	(£90m)	(£18m)	No financial penalty for the first three years of AMP8 then 0.1% for years 4 and 5
	Alt. proposal	0.10% at appointee RCV's level	(£19m)	(£4m)	
Total	Ofwat		**(£429m)**	**(£86m)**	
	Alt. Proposal		**(£190m)**	**(£38m)**	

2. Cross-cutting issue: Reporting and assurance of AMP8 Performance Commitments

Key points

- We strongly support reporting to give transparency in our performance. It is essential our regulators and stakeholders have confidence in the accuracy of our reporting. High quality and proportionate assurance are in turn essential to give this confidence.
- We have concerns about Ofwat's proposed assurance requirements and propose amendments to maintain the quality, proportionality and transparency of the assurance.
- Companies should be able to decide the extent of assurance activity on individual PCs.
- Reducing the amount of time required for reporting by one month will impact our timelines, add costs, and potentially risk the quality.
- The proposed approach for penalising misreporting should be refined or removed, to avoid perverse consequences. Similarly, the requirement to share a draft assurance report with Ofwat should be removed.

We are concerned about the assurance requirements for Performance Commitments outlined in the Draft Determination and the impact it will have on the reporting timelines, our relationship with our assurers, and cost to our business. We set these out in detail in TMS-DD-046 Thames Water PR24 DD Response - Reporting and additional requirements.

3. Cross-cutting issue: ODI Rates

Key points

- The ODI rates in Ofwat's Draft Determination have changed substantially from the indicative ODI rates published in August 2023. We suggest a number of amendments to Ofwat's performance range and ODI rate calculations. In particular:

  1. 2023-24 performance data: 2023-24 performance data was not available when Ofwat estimated the ODI rates. Ofwat should update ODI rates including 2023-24 performance data.
  2. Industry-wide median unit incident rate: Companies with large RCVs should not be penalised for ODI rate mitigations put in place to protect small RCV companies. Ofwat should therefore continue to calculate ODI rates for large companies based on an industry-wide median unit incident rate (while at the same time estimating ODI rates for small RCV companies separately).
  3. Serious Pollution Incidents and Discharge Permit Compliance: WOCs and WaSC do not have comparable performance for these PCs. Ofwat should use all WaSCs - rather than large companies - to estimate the median incident rate for Serious Pollution Incidents and Discharge Permit Compliance.
  4. PCC: Companies have only a modest ability to influence the PCC outcomes, with exogenous factors such as the weather, customer behaviour and economic conditions influencing performance. It is not appropriate to assign a high level of RORE (0.6%) to PCs where companies' control is limited. It should revert to a low RORE at risk (0.4%).
  5. Water Supply interruptions and Mains Repairs: Using the PR19 ODI rate for Water Supply Interruptions and Mains Repairs is inappropriate. This is especially the case for Water Supply Interruptions, as it is combined with a 1% collar. Ofwat should use the rate estimated by its PR24 ODI Models - as it is internally consistent - and revert to the 0.5% collar.

Figure 4 - Ofwat and Thames Water's proposed ODI rates

Performance Commitment	Ofwat – Proposed ODI rate (£m)	Thames Water – Proposed ODI rate (£m)
Water Supply Interruptions	£1.73m	£0.99m
Leakage [13]	£0.91m	£0.60m
Per Capita Consumption	£1.95m	£0.94m
Business Demand	£1.19m	£1.11m
Internal Sewer Flooding	£38.63m	£36.01m
External Sewer Flooding	£14.35m	£5.35m
Total Pollution Incidents	£3.99m	£2.58m
Serious Pollution Incidents	£1.75m	£1.68m
Discharge Permit Compliance	£5.86m	£3.80m

Context

The ODI rates in Ofwat's Draft Determination have changed substantially from the indicative ODI rates published in August 2023. This has materially increased our exposure to ODI penalties in AMP8. This particularly the case in wastewater.

Below we suggest a number of amendments to Ofwat's performance range and ODI rate calculations.[14]

We comment on the reward/penalty mechanism for C-MeX, D-MeX and BR-MeX separately, in the sections of this document dedicated to each of these specific PCs.

Updating ODI rates to include 2023-24 performance data.

Ofwat's ODI rates were published before companies submitted their Annual Performance Reports for 2023/24. The performance range calculations therefore did not take account of 2023/24 performance. Ofwat has committed to review '*Draft Determination PCLs considering companies outturn performance for 2023-24*'[15] We expect that this review will also include the impact on ODI rates. This is in line with the CMA's approach in PR19 of using the most up to date data available at the time of the relevant decision. [16]

We have incorporated 2023-24 performance data - where available - into Ofwat's performance range models to re-baseline the ODI rates. This forms the new starting point for the further

[13] Leakage and Per Capita Consumption have been expressed as in MLD terms in line with Ofwat's specification for the ODI rate. Please be aware we also express the ODI rates in equivalent terms for a 1% change. For leakage, the equivalent rates are £6.13m and £4.02m. For Per Capita Consumption, the rates are £2.85m and £1.37m.

[14] More specifically, the ODI rate calculations relate to how Ofwat has estimated the median incident unit rate.

[15] Ofwat, PR24 draft determinations, Delivering outcomes for customers and the environment, July 2024, page 16.

[16] Competition & Markets Authority, Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited price determinations, March 2021, paragraph 26. The CMA decided to include the latest year of data available as it considered that *"the advantages of using the most up-to-date data (such as accounting for the most recent information and increasing the number of observations in the model) outweigh the risks of potential bias, noting that other sources of potential bias due to anticipated or deferred expenditure may work in the opposite direction, regardless of whether we make use of the most recent data"*

proposals we make below. This is to ensure that the ODI rates capture the most accurate view with the latest available data.

For External Sewer Flooding, we note that Ofwat's initial performance model has only used PR19 performance data. For the majority of other Performance Commitments, Ofwat has used PR14 and PR19 data. We recognise that there were differences in definitions at PR14 between companies. Nevertheless, we maintain that Ofwat's methodology – which looks at the difference between company performance and the PCL each year – significantly reduces the impact of any differences in definition. We therefore propose that for External Sewer Flooding the performance data for both PR14 and PR19 is used. This makes the approach for External Sewer Flooding consistent with the approach used for other PCs.

Figure 5 below shows the impact on the performance ranges of incorporating 2023-24 data into the performance models.

Figure 5 - Original and Updated Performance Ranges

PC	Original Performance Ranges	Updated Performance Ranges with 2023/24 data
Water Supply Interruptions	246%	342%
Leakage	5%	8%
Per Capita Consumption	9%	11%
Internal Sewer Flooding	85%	90%
External Sewer Flooding (PR19 Only)	20%	28%
External Sewer Flooding (All Years)	47%	53%
Total Pollution Incidents	43%	66%
Serious Pollution Incidents (absolute)	1.31	1.33
Discharge Permit Compliance	2.53	2.50

Changes to calculation of median incident unit rate

Companies with large RCVs should not be penalised for ODI rate mitigations put in place to protect small RCV companies. Ofwat should therefore continue to calculate ODI rates for large companies based on an industry-wide median unit incident rate, in line with the indicative rates.

Ofwat's indicative ODI rates used an industry wide median unit incident rate across all companies for each PC. However, several companies argued that their smaller RCVs resulted in a disproportionate exposure to risk under the top-down approach. To mitigate this, Ofwat's Draft Determination removed both Hafren Dyfrdwy and Portsmouth Water from the calculation of median unit incident rates and split companies into two groups - small and large - based on

RCV size.[17] Ofwat therefore calculated four-unit incident rates for each PC – one rate each for Hafren Dyfrdwy and Portsmouth Water, and a median rate for the small and large groups.

We recognise why Ofwat is seeking to put in place additional ODI rate mitigations for companies with smaller RCVs. We are comfortable with the approach it has adopted for smaller RCV companies, i.e. specific unit incident rate calculations for Hafren Dyfrdwy, Portsmouth Water and the small group.

However, it does not follow that Thames Water - and other large companies - should be penalised and incur higher ODI rates for AMP8 as a result of mitigations put in place to protect smaller RCV companies. We note that Ofwat received no (publicly available) feedback suggesting this change be made. There is no inherent reason for lower ODI rates for smaller RCV companies to be counterbalanced with increased ODI rates for larger RCV companies. We note that at PR19 Ofwat reviewed whether to apply a small company cost of debt adjustment for Portsmouth.[18] An adjustment was made specifically for Portsmouth Water based on their size. However, this adjustment did not impact the 'large' companies – there was no offsetting adjustment. Similarly, there is no justification for an offsetting adjustment to carving out a small company approach to calculating median ODI rates.

The ODI rate for large companies should therefore continue to be calculated based on an industry-wide median unit incident rate, as was proposed in the August 2023 publication. It should take all WOCs and WaSCs - including Hafren Dyfrdwy and Portsmouth Water - into account for water PCs. All wastewater PCs should include Hafren Dyfrdwy. This would protect smaller RCV companies without unduly penalising larger RCV companies.

Our proposed ODI rates for the majority of water and wastewater PCs are therefore based on assessing the median unit incident rate for all companies in the sector.

We have made some targeted changes to this approach for specific to better reflect characteristics of the sector, which we describe below.

Ofwat should use all WaSCs – rather than large RCV companies which includes two WOCs - to estimate the median incident rate for Serious Pollution Incidents and Discharge Permit Compliance.

Ofwat published four models with its ODI rate calculations. There are three Performance Range Models to estimate the performance range for each PC. These feed into an ODI Rate Model that couples the performance range estimate with the percentage of RORE at risk to calculate the ODI rates. One of the steps in this model is calculating the median incident unit rate.

Ofwat's median incident unit rate calculations for Serious Pollution Incidents and Discharge Permit Compliance include Affinity Water and South East Water in the large group. [19] This is because their RCVs are over the £500m threshold. Our analysis, however, has exclude them from median incident unit rate calculations. Instead, we have assessed the ODI using WaSCs including Hafren Dyfrdwy. We have not included any WOCs.

This change is based on analysis we have undertaken in Ofwat's Performance Range Model. In particular:

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[17] In addition to the small and large groups, Ofwat also assessed separately.
[18] Ofwat's review was that any premium for cost of debt for a small company was likely to lie within the range of 25-40 basis points over an efficient benchmark driven by large company borrowing costs, with Portsmouth Water proposing an uplift of 30 basis points.
[19] See 'PR24-Draft Determination-ODI-Rates', tab 'top down models', rows 201 to 217.

- Data in the model demonstrates that wastewater assets have a materially higher risk of failure than waste assets for these two PCs. WOCs have had 7 Serious Pollution Incidents since the start of AM6 up to 2022-23. By contrast, over the same period WASCs had 453.[20]
- Similarly, Ofwat's model for Discharge Permit Compliance does not include data information whatsoever for WOCs performance.[21] This means that WOC performance was not considered when assessing the performance range.
- Ofwat has excluded WOCs from its performance range estimation for both PCs. The performance ranges are estimated using only WaSC data.[22]

Ofwat should therefore estimate the median incident unit rate for Serious Pollution Incidents and Discharge Permit Compliance using all WaSC information.

Companies have modest ability to influence PCC as it is defined in the PC. It is not appropriate to assign a high level of RORE (0.6%) to PCs where companies' control is limited. It should revert to a low RORE at risk (0.4%).

Ofwat's Draft Determination set out that it has increased the percentage of RoRE at risk for some PCs to reflect the Government's Strategic Priorities for Ofwat. In particular, the percentage at risk for Total Pollution Incidents, Storm Overflows, Leakage and PCC has increased from either low or medium (0.4% or 0.5%) to high (0.6%). This has increased ODI rates for these PCs.

We recognise that reducing water consumption is a priority for both Government and Ofwat. However, as set out in the PCC section of this document, we have only a modest ability to influence the outcome. The language in the Strategic Policy statement for Ofwat states that Ofwat should hold companies to account for their contribution towards reducing personal water consumption, rather than stating that companies should be fully accountable for the absolute level of water consumption.[23]

Government policy and consumer behaviour are both bigger drivers of PCC performance than our actions. Compared to other PCs, we have much less control over PCC. It is not appropriate for companies to bear as large a proportion of the risk as it is for other PCs. Although we agree it is a high priority we maintain Ofwat should reduce the percentage of RoRE at risk from high (0.6%) back to low (0.4%).

[20] See 'Ofwat PR24-Draft Determination-ODI-Rates-Performance-Range-Model-3.xlsx', tab 'a.Performance'.
Cells AV36:BC41 for WOCs and AV25:BS35 for WASCs.
[21] See 'Ofwat PR24-Draft Determination-ODI-Rates-Performance-Range-Model-1.xlsx', tab 'c.Diff to PCL', rows 83 to 98.
[22] See 'PR24-Draft Determination-ODI-Rates', tab 'Top Down Models', rows 177 to 193 for Serious Pollution Incidents and rows 201 to 217 for Discharge Permit Compliance.
[23] This is set out in more detail in the "Per Capita Consumption" section of this document

Using the PR19 ODI rate for Water Supply Interruptions and Mains Repairs is inappropriate. This is especially the case for Water Supply Interuptions, as it is combined with a 1% collar. Ofwat should use the rate estimated by its PR24 ODI Models and revert to the 0.5% collar.

Ofwat's Draft Determination set out that incentives for PR24 should be at least as great as PR19.[24] To do this it checks whether the calculated median unit incident rate is greater than the PR19 rate, after accounting for inflation. We see no clear rationale for this constraint being applied. It reduces the internal consistency across Ofwat's ODI Model suite.

We have suggested a number of amendments to Ofwat's performance range and ODI rate calculations above. We reserve judgement on whether the ODI rates calculated as a result of this approach will work in practice once we get into AMP8.

Nevertheless, we recognise that one of the benefits of the approach is that it adopts an internally consistent methodology for each PC.[25] Applying this additional constraint departs from this approach. Figure 6 and Figure 7 shows that:

- Water Supply Interruptions: The performance range associated with Ofwat's proposed PR24 ODI rate is 196%. By contrast, the actual performance using latest data is 342%. This is therefore only 57% of the true performance range. As a result, the ODI rate (£1.73m) is 75% higher than if Ofwat had adopted the same approach as other PCs (£0.99m);
- Mains Repairs: We note that the PR19 rate and the PR24 top-down approaches give very similar estimates for the ODI rate. Application of the PR19 ODI rate constraint has a much smaller impact.

Figure 6 - Water Supply Interruption ODI rate under different performance range assumptions

PC	Ofwat using PR19 rates	Ofwat up to 2022/23	Thames Water including 2023/24
ODI Rate	£1.73m	£1.38m	£0.99m
Performance range[26]	196%	246%	342%

Figure 7 - Mains Repairs ODI rate under different performance range assumptions

PC	Ofwat using PR19 rates	Ofwat up to 2022/23	Thames Water including 2023/24
ODI Rate	£0.242m	£0.223m	£0.225m
Performance range[27]	27%	29%	28%

Alongside this, Ofwat has set a RORE cap threshold for Water Supply Interruptions to 1% for all companies, apart from South East Water where it intends to set a 2% cap. Ofwat is therefore creating a further layer of risk for companies. This is on top of the risk associated with the higher ODI rate described above.

[24] Ofwat, PR24 draft determinations, Delivering outcomes for customers and the environment, July 2024, page 25.
[25] We note that there are a number of instances where Ofwat has made small departures from the central approach to reflect circumstances or data constraints for specific PCs.
[26] The performance range in the 'Ofwat using PR19 rate' is the range required to get an ODI rate equivalent to the inflated PR19 of £1.73m.
[27] The performance range in the 'Ofwat using PR19 rate' is the range required to get an ODI rate equivalent to the inflated PR19 of £0.242m.

Furthermore, we set out in the Water Supply Interruptions section evidence on why we maintain the performance forecasts for AMP8 have a significant degree of forecast optimism bias in contrast to actual performance data across the sector. We therefore expect Ofwat's proposed PCL to be unachievable, creating a third layer of ODI penalty risk with this PC.

Supporting information: Overview of changes to the calculation of ODI rates

We propose that Ofwat make the following changes to the calculation of ODI rates to make it consistent with the aims stated by Ofwat in its PR24 final methodology:

Wastewater PCs: Figure 8 below outlines our proposed changes to Ofwat's PR24 Draft Determination ODI rates for wastewater PCs.

Figure 8 - Summary of Ofwat's Draft Determination ODI rates and our proposed ODI rates (wastewater PCs)

	Internal Sewer Flooding	External Sewer Flooding	Total Pollution Incidents	Serious Pollution Incidents	Discharge Permit Compliance
(1) Original ODI Rate	£38.63m	£14.35m	£3.99m	£1.75m	£5.86m
(2) Adjusted for 23-24 Data	£36.59m	£10.13m	£2.60m	£1.88m	£5.93m
(3) Adjusted for Earlier Years of Data (only ESF)	£36.59m	£5.39m	£2.60m	£1.88m	£5.93m
(4) Adjusted for Industry-wide Median	**£36.01m**	**£5.35m**	**£2.58m**	**£1.68m**	**£3.80m**

Notes:

1. ODI rate as per Ofwat's PR24 Draft Determination for Thames Water;
2. The first adjustment includes the addition of 2023/24 actual performance range data. This is to ensure that the ODI rate includes the latest available data;
3. This adjustment is made to include data from 2017/18 to 2019/20 for ESF performance range calculations that were previously omitted by Ofwat in their methodology. We do not see any reason for this exclusion and hence have reintroduced the data.
4. This adjustment calculates an industry-wide median unit rate for wastewater-related PCs by reintroducing Hafren Dyfrdwy, as opposed to a median rate only for large RCV companies, which Thames Water falls under. Additionally, for Serious Pollution Incidents (SPI) and Discharge Permit Compliance (DPC), we have included only WaSCs by excluding Affinity Water and South East Water. Ofwat had previously included some WoCs due to SPI and DPC being applicable to water.

- Water PCs: Figure 9 below outlines our proposed changes to Ofwat's PR24 Draft Determination ODI rates for water PCs.

Figure 9 - Summary of Ofwat's Draft Determination ODI rates and our proposed ODI rates (water PCs)

	Leakage (£m)	Water Supply Interruptions (£m)	Per Capita Consumption (£m)
(1) Original ODI Rate	£0.91m	£1.61m	£1.95m
(2) Adjusted for 23-24 Data	£0.64m	£1.15m	£1.52m
(3) Adjusted for Industry-wide Median	£0.60m	£0.99m	£1.40m
(4) Final Median and RoRE adjusted ODI Rates	**£0.60m**	**£0.99m**	**£0.94m**

Notes:

1. ODI rate as specified in Ofwat's PR24 Draft Determination for Thames Water;
2. The first adjustment includes the addition of 2023/24 actual performance range data. This is to ensure that the ODI rate includes the latest available data;
3. This adjustment calculates an industry-wide median incident unit rate, as opposed to a median incident unit rate calculated only for 'large RCV' companies;
4. Adjustment is specifically for PCC, with the percentage of regulated equity reduced from high (0.6%) to low (0.4%).
5. We propose to remove the PR19 adjustment for WSI.

4. Cross-cutting issue: Caps and Collars

Key points

- Ofwat has substantially reduced the use of caps and collars compared to PR19, whilst increasing ODI rates and introducing tougher PCLs.
- Fewer, and looser, caps and collars increase the financial exposure of all companies. This is especially true for Thames Water as a company in turnaround and with an especially complex asset base and operating environment.
- For many PCs we are also exposed to various forms of penalty through our statutory obligations and other license conditions. The absence of a collar then exposes to us two punitive regimes simultaneously with very large double jeopardy.
- We propose Ofwat includes caps and collars to improve financeability, without changing our incentives to improve in the event of underperformance. These should default to 0.5% of regulated equity, except where Ofwat's research indicates 0.4%.
- We also propose tighter caps and collars in selected areas which provide a more reasonable performance range for the industry.

Context

Ofwat has proposed that caps and collars be applied only for a relatively small number of Performance Commitments. These are set at 0.5% of regulated equity, except for Water Supply Interruptions which is set at 1% of regulated equity. This is a major change from PR19 where caps and collars were used more widely and were set to specific performance levels based on historical data. As part of good regulatory practice, deviation from the methodology or existing practice should be justified and evidenced by Ofwat.

Our concerns around caps and collars

We are a company in turnaround. Without amendment, the Draft Determinations would leave us exposed to very large financial risks. Realistically, we do not expect to be earning large rewards on any ODI, though we may earn some. This is true even if Ofwat accepts every single one of our proposed mitigations to the outcomes package. Even if our performance improves compared to current levels, there are several ODI rates where there is a credible risk of incurring many hundreds of millions of penalties. Relatively minor amendments to the cap and collar regime provide a low-cost way to reduce our financial exposure without harming customers or dampening our incentives and promoting our continued operation and related growth.

Accounting for exogenous factors

One reason for caps and collars is to mitigate the risks of companies not hitting the target (or far exceeding them) due to factors outside management control, for example due to extreme weather or unanticipated changes in customer behaviour. Realistically, we are not expecting any very good years to counteract a poor weather year. Even benign weather will result in us just about meeting many targets. The use of more, tighter cap and collars protects companies

from excessive financial exposure, an imbalanced package, and in some cases double jeopardy.

Absence of any cap creates unnecessary risk for very minimal benefit.

Where there is no cap, we are hugely exposed to a challenging year. A P10 year still means there is a roughly 50% chance of getting one such year during the AMP. And our P10 is in some cases worse than the industry P10, which under the current ODI methodology is doubly punishing for us, as our very high ODI rate is multiplied by a large performance delta. We have 3 PCs where, even in our central case of delivering our Business Plan, the Draft Determination would result in penalties in excess of a hypothetical 0.5% collar. Together, there is an additional £869m of penalty that we would incur in the absence of collars per Draft Determination, in our P50 case. External Sewer Flooding makes up for £720m of this, whilst Total and Serious Pollution Incidents make up £120m and £29m respectively. In a P10 scenario, the impacts are much larger.

Proportionality

Some of our very plausible P50 scenario results in £200m - £300m losses on a single PC, even if we dramatically improve our performance, just by less than the Draft Determination demands. Whilst we accept that we are a poor performer in some areas and must do better, this dwarfs most other incentives in the price control, and is a material factor in our financeability. It requires us improve by very large percentages, simply to earn penalties in the tens rather than hundreds of millions.

Imbalance

We could conceivably meet every single part of our turnaround plan, spend within the range of our allowances, and meet every ODI except one, and still earn very low returns due to a handful of major incidents on supply interruptions adding ~£250m of downside, or a small number of Serious Pollution Incidents caused by 3rd parties adding tens of millions. This is not a balanced risk package.

Asymmetry

A good year on a PC for which we are a relatively good performer (e.g. due to kind weather, or simply good operational performance) can earn us a relatively small upside, but generally less than £5m. A bad year costs us tens of millions of penalties. For example, the histogram shown in the Internal Sewer Flooding section of this document shows how companies outperforming the PCL do so by much smaller amounts than when they underperform. Further, several ODI rates are downside only due to requiring 100% compliance. Collars cannot remove this asymmetry, but they can have an important dampening effect, making the package a fairer bet.

Double jeopardy

Some Performance Commitments are also subject to statutory obligations and other regulatory enforcement. These include Compliance Risk Index, Discharge Permit Compliance, and Serious Pollution Incidents. For example, the maximum penalty for water companies who pollute the environment will raise for water companies from £250k to unlimited penalties. Whilst we accept the need for ODI rates on these measures, the absence of a collar exposes us to two punitive regimes simultaneously with a very large double jeopardy.

Incentivisation

A key reason Ofwat has cited for removing caps and collars is to make sure there remains an incentive to improve where performance is beyond these levels. Where we are a very poor performer, we have strong incentives to get better, not least to reduce our exposure in the following year, as well as reputational reasons, and sometimes enforcement or legal obligation concerns. We already have extremely strong incentives to improve, where we perform very poorly. A reasonable collar does not change this incentive. In practice, the absence of a collar simply makes the financial exposure unbounded, increasing our risk and causes additional financeability and resilience challenges. It does not change the 'real world' incentive at an operational level to improve.

Alignment to the ODI regime

ODI rates are more high-powered than at PR19. Whilst we do not disagree with the principle of this approach, it increases the risks of unintended consequences should a PCL be mis-calibrated, or in the event of an extreme outcome – whether for reasons within or outside of company control. Setting collars can reduce the impact of this risk without changing the ODI rates (and so the marginal incentives on our behaviour) themselves. Aligning the collar to regulated equity at risk is also an internally coherent way to align to the regulated equity at risk used in the ODI calculations.

Very wide caps/collar range

Even those PCs with a cap/collar have such a large range, as to make them almost meaningless in some instances. Hundreds of millions of penalties can be incurred across the AMP before the collar triggers. This can also result in strange situations which are not consistent with good regulatory practice. For instance, we can meet or even exceed the targets on almost all PCs, but if we badly fail on one, we can still be in large net financial penalty. This is true even for those PCs where external factors can be a large driver of performance, e.g., third parties blocking sewers causing sewer floods, consumer behaviours driving PCC, or poor weather linked to climate change leading to more burst mains. This would not be a fair reflection on our performance, nor would it be effective regulation.

Our proposals

Our proposals are aimed at reducing our downside exposure to support our financeability, in a way which keeps strong incentives on us to improve, improves the overall balance and proportionality of the ODI package, and does not harm customers.

Additional caps and collars

We propose that caps and collars are introduced for every PC. This helps companies such as ours in demonstrating financeability. This is a material part of the downside case typically considered by investors. Introducing collars also reduces some of the most extreme parts of the disproportionality, imbalance and asymmetry challenges. As we set out above, introducing a collar does not change our operational behaviour and investment decisions in practice – we will be very well incentivised to improve where our performance strays beyond the collar. These incentives include a desire to improve our assets and operations to improve performance and so reduce penalties in the following year, reputational incentives, and in some cases EA financial penalties and/or risk of breach of license conditions. The cap/collar could be set at the same

level as other PCs (currently 0.5% regulated equity), as there is no clear reason for them to differ except in a small number of cases discussed further below.[28]

As a bare minimum for consistency with the methodology and with good regulatory practice, caps and collars are necessary for:

- External Sewer Flooding. We note this is a new PC for Thames Water and so should have a cap and collar under the current Draft Determination policy where new PCs receive a cap and collar. This is a simple error to be corrected at Final Determination.
- Compliance-based Performance Commitments with strong statutory obligations with associated consequences and no outperformance opportunity. This includes Discharge Permit Compliance, Compliance Risk Index, and Serious Pollution Incidents. A collar here is a necessary protection from unbounded double jeopardy from two punitive regulatory regimes.

For the reasons set out above, we also strongly consider that caps and collars are important for all other PCs.

Tighter caps and collars which provide a more reasonable performance range.

We accept that caps and collars are typically symmetrical to protect customers as well as companies and welcome a tighter cap wherever there is a tighter collar, as part of an appropriately balanced in-the-round package that represents a fair bet for Thames Water. Even if caps/collars are introduced for all PCs, the 0.5% range is very large – it exposes us to over £100m of risk on every individual PCs over the AMP[29] – in some cases this is our central P50 case based on our stretching Business Plan ambition. This is disproportionate to the overall package. We accept that very poor performance should incur large penalties and we should be incentivised to improve, but the current regime puts financeability at risk without benefiting customers or materially changing our real-world incentives to improve.

For lower priority PCs, as determined by Ofwat's existing methodology (i.e. those with 0.4% RoRE), the collar should be set to 0.4%. This aligns to the ODI methodology and avoids the scenario of more financial penalty for poor performance (or reward for good performance) than even the RoRE at risk methodology considers appropriate. This impacts Business Demand and Bathing Water Quality. As set out earlier in this section, Per Capita Consumption should also have a 0.4% RoRE collar.

For Water Supply Interruptions (WSI), the cap and collar should be set to 0.5%, not 1%. Ofwat's Draft Determination states that '*To maintain greater risk balance, while maintaining strong incentives for companies to improve performance, we are setting a collar at -1% RoRE, which is wider than our default collar of 0.5% RoRE*'[30]. It is not clear how increasing the downside risk exposure maintains a greater risk balance – it simply puts more downside risk on companies, in an area where upside is very limited. If the aim of an ODI package is to incentivise better performance, then simply increasing our downside exposure to very high levels does not achieve this aim – we are already extremely well incentivised to improve our supply interruptions performance and are investing accordingly. However as set out in detail in the WSI section of this document, there are numerous risks beyond our control, and risks inherent in the scale and

[28] This level also aligns to the ODI methodology. If the ODI rate has uncertainty in the 'real' performance range over which to spread equity at risk, then the cap and collar being set at this level provides a useful safeguard against the range being inappropriately calculated – either in the P10 or P90.
[29] Based on the expected average RCV over the 2025-30 period and notional equity of 45%
[30] PR24 draft determinations: Delivering outcomes for customers and the environment; p33

nature of our network, which mean a collar is an appropriate way to risk-share. Overall, there is no evidence for why WSI should have a substantially larger risk range than for any other PC.

5. Water Supply Interruptions

Key points

- We remain committed to improving Water Supply Interruptions (WSI) across AMP8, with stretching but realistic improvements to performance as laid out in our PR24 business plan.
- The 5-minute baseline Ofwat has used to set the PCL does not reflect the best available evidence for the industry overall or for Thames Water specifically. Only companies with favourable characteristics have been able to meet PR19 targets. The PR19 target for WSI was overly stretching for most and should not be used as a baseline for PR24. Several companies raised this concern in PR19 and noted that the proposed target was driven by overly optimistic forecasts.
- Our performance is heavily driven by large events. If Ofwat does not accept our PCL as appropriately stretching, we propose two options:
  - Set a WaSC-only historical upper quartile target of 7 minutes 31 seconds to better reflect the unique characteristics of operating as a WaSC, without any cap on large events; or
  - Maintain the 5-minute WSI for AMP8, but include a cap of 20 seconds for large events, so that Thames has a stretching yet achievable target
- We also propose that for planned interruptions due to mains rehabilitation schemes, Ofwat only penalise Thames Water if we overrun the outage duration specified.
- We propose that Ofwat use its proposed ODI rate of £1.73m only if a cap of 20 seconds is set for large events. Otherwise, we propose that Ofwat use our alternative ODI rate of £0.99m as calculated in Section 3.
- We propose the collar is set at 0.5%, not 1%, of regulated equity.
- We propose that Ofwat should not introduce an extra performance commitment by way of Severe Water Supply Interruptions, as it would lead to double jeopardy.

Figure 10 - AMP8 proposals – Water Supply Interruptions

	Baseline	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals							
TW forecast- Draft Plan		10 min 18 sec	10 min 03 sec	09 min 48 sec	09 min 32 sec	09 min 17 sec	
Ofwat PCL	5 min 0 sec	5 min 0 sec	5 min 0 sec	5 min 0 sec	5 min 0 sec	5 min 0 sec	
Ofwat ODI rate							£1.73m
Forecast ODI Penalty (Unmitigated)		(£9m)	(£9m)	(£8m)	(£8m)	(£7m)	**(£42m)**
TW Draft Determination Response							
TW Alternative PCL	7 min 31 sec	7 min 31 sec	7 min 31 sec	7 min 31 sec	7 min 31 sec	7 min 31 sec	
Our proposed ODI rate							£0.99m
Forecast ODI Penalty		(£3m)	(£3m)	(£2m)	(£2m)	(£2m)	**(£11m)**

Numbers in blue cells represent Thames Water's proposed mitigations

Context

Ofwat has proposed a target of 5 minutes for all companies for Water Supply Interruptions (WSI) across AMP8, using a 2024-25 baseline position of the PR19 2024-25 PCL. Ofwat has set the PR24 PCL to maintain the level of challenge from PR19, to incentivise companies to focus on delivering PR19 2024-25 PCL consistently. Ofwat has also asked for views on introducing an extra Performance Commitment focused on severe Water Supply Interruptions, at or greater than 12 hours duration.

We propose that Ofwat sets a target that is deliverable for Thames Water for AMP8, taking into consideration the unique characteristics of operating as a Water and Sewerage Company (WaSC) as well as regional factors such as population density and traffic, that impact Thames Water's WSI performance. Alternatively, Ofwat could include a cap for large events, to which we are more vulnerable than other companies.

We have been continually investing in mitigation measures to lessen the frequency and impact of supply interruptions and have taken this into consideration when setting our AMP8 targets. If for the Final Determination, Ofwat sets us an alternative set of outcomes parameters that apply to multiple companies, we propose a set of considerations below that would better align to the PR24 Final Methodology, recognise some of the unique challenges we face, consider the latest evidence, and better allocate risk between the company and customers.

We are concerned about the Draft Determination for the following reasons:

- Ofwat's WSI target for AMP8 maintains the level of challenge from PR19, based on the assumption that nine of 17 companies forecast to deliver or outperform the PR19 2024-25 PCL of 5 minutes. However, the actual evidence available does not support the 2024-25 PCL being an appropriate baseline for most WaSCs. Most WoCs (with the exception of South East Water) have achieved better performance during AMP7 relative to WaSCs due to unique operating environments and inherent network resilience. Additionally, some WaSCs have set unrealistic targets for their PR19 2024-25 and AMP8 performances. This skews the expectations of future performance for the industry.

- Large events adversely impact Thames Water's baseline performance[31]. To the extent possible, we have been undertaking the necessary mitigation measures as envisaged in our PR24 Long Term Delivery Strategy. Thames Water has roughly six large incidents on average per year and the scale of our network makes quick rectification challenging. If Ofwat was to maintain the 5-minute for AMP8, these large events would need to be subject to some form of a cap in line with AMP6 methodology, to allow us to challenge ourselves in a reasonable manner.

- Additionally, due to mains rehabilitation schemes, which secure long-term resilience for the supplier customers, Thames Water needs to schedule planned interruptions. There should be a penalty incurred only if we overrun the notified duration.

- It is unclear how Ofwat's decision to increase the downside risk exposure, by setting the collar at 1% RoRE instead of the default 0.5% RoRE, maintains a greater risk balance. It simply puts more downside risk on companies, in an area where upside is very limited. We have detailed this further in Section 4.

- Ofwat has currently set an ODI rate linked to PR19 performance incentives, for which we do not see a clear rationale. This is also inconsistent with the methodology Ofwat has

[31] We have documented this extensively in previous submissions, for example TMS15 Asset Health Deficit in our Business Plan submission.

applied for other PCs and unnecessarily punitive, particularly when combined with a 1% collar. We have detailed this further in Section 3.

- Ofwat's Draft Determination proposal to introduce severe Water Supply Interruptions as an additional Performance Commitment would lead to double jeopardy. We appreciate Ofwat's re-consideration around how best to address severe interruptions, leveraging tools not necessarily confined to Performance Commitments.

Our concerns around the Performance Commitment target level

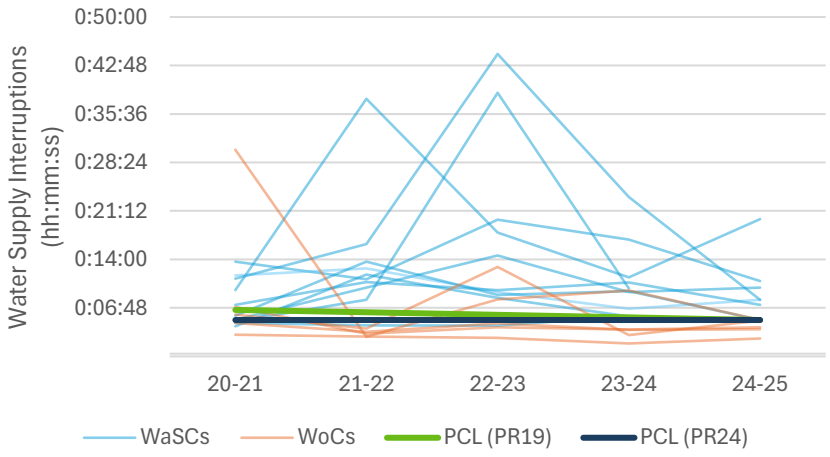
The baseline and forecast PCL is skewed. Smaller companies have historically performed better than WaSCs, and certain WaSCs have set unrealistic performance targets.

The PR19 target for WSI was very stretching, and several companies at the time expressed concern it was driven by overly optimistic company forecasts. The evidence since then is that it has indeed been very difficult for most companies to achieve these performance levels. As we set out below, this is an opportunity for Ofwat to reset to a more realistic target level that reflects the heterogenous nature of companies but also applies a strong degree of commonality in target levels.

A small number of companies have met targets during PR19. Some WoCs have performed better than WaSCs, due to their unique operating environments, making the achievement of 5 minutes for WSI during 2024-25 (the basis of the PR24 PCL) more realistic for them compared to other companies. Some small WoCs already have a high degree of network resilience built in. For example, we understand that the water network in Portsmouth is effectively a grid that was built to avoid interruptions to Ministry of Defence sites.

Additionally, the best performing WaSC by some distance is Wessex Water. Wessex Water is smaller than most WaSCs (as measured by RCV) and completed a £230 million supply grid project in 2018, allowing redistribution from areas with surplus water to areas where it is needed most. Our network is far too vast and complex for this ever to be a realistic ambition without spending billions of pounds and digging up large parts of London. Figure 11 below demonstrates that throughout AMP7, WoCs have distinctly performed better than WaSCs on average.

Figure 11 - Comparison of WoCs and WaSCs AMP7 WSI performance (2020/21 to 2024/25)



Note: SEW and SRN (worst perfomring WOC and WaSC respective) removed from figure as outliers which make the chart hard to read.

The heatmap below further substantiates the difference between the WSI performance of WoCs and WaSCs in AMP7. With the exception of South East Water, most WoCs are expecting to hit the PR19 24-25 PCL of 5 minutes. This appears to be realistic and achievable given that most WoCs have either met or outperformed the 5-minute target through most of AMP7.

Only four WaSCs, however, forecast to hit the PR19 24-25 PCL of 5 minutes. One of these is Wessex Water, which as discussed previously, is a relatively smaller WaSC that built a water redistribution grid in 2018 and so has a history of achieving the target. The remaining three WaSCs who forecast this performance level for 24-25 have not hit the 5-minute target in 23-24 and South West Water and United Utilities were in fact far from this level. This suggests that some WaSCs have set unrealistic performance targets for 2024-25 as well as AMP8.

Figure 12 - WoCs and WaSCs historical Water Supply Interruptions performance

Company		2020/21	2021/22	2022/23	2023/24	2024/25
WoCs	Affinity Water	00:05:49	00:03:43	00:12:53	00:02:46	00:04:55
	Bristol Water	00:30:17	00:02:31	00:08:03	00:09:24	00:05:00
	Portsmouth Water	00:02:49	00:02:31	00:02:21	00:01:31	00:02:15
	SES Water	00:06:56	00:02:58	00:03:54	00:03:36	00:03:56
	South East Water	00:31:27	01:12:33	02:46:50	00:44:44	00:22:24
	South Staffs Water	00:04:33	00:03:15	00:04:29	00:03:32	00:03:39
WaSCs	Thames Water	00:13:39	00:11:03	00:19:54	00:16:56	00:10:47
	Anglian Water	00:05:02	00:09:48	00:14:35	00:09:08	00:09:48
	Hafren Dyfrdwy	00:09:27	00:37:51	00:18:00	00:11:20	00:20:00
	Northumbrian Water	00:04:04	00:11:45	00:08:17	00:05:32	00:05:00
	Southern Water	00:12:43	00:09:22	01:28:00	01:21:33	00:07:24
	Severn Trent	00:11:37	00:12:40	00:09:10	00:06:40	00:08:00
	South West Water	00:05:38	00:13:40	00:08:42	00:09:18	00:05:00
	United Utilities	00:04:46	00:08:01	00:38:45	00:09:39	00:00:00
	Dŵr Cymru	00:11:08	00:16:17	00:44:31	00:23:16	00:08:00
	Wessex Water	00:04:34	00:04:12	00:04:10	00:05:35	00:05:00
	Yorkshire Water	00:07:15	00:10:38	00:09:27	00:10:35	00:07:15

Ofwat has set the PR24 PCL of 5 minutes based on most companies being able to achieve this target at the end of AMP7 and sustain that performance across AMP8. The data above demonstrates clearly that:

- The PR19 targets were overstretching for most companies, who have failed to achieve them;
- The companies who are meeting these target levels so far are typically WoCs (and one WaSC) with unique characteristics we cannot replicate; and
- Several companies look to be overly optimistic in their 24-25 forecast

This is now an opportunity, with 5 years more evidence, to set more realistic yet still stretching target levels for companies that reflect their characteristics. Instead of using 2024/25 PCL (as set in 2019) as a baseline, Ofwat should set an AMP8 target based on sustained PR19 performance across both WoCs and WaSCs. We propose that Ofwat use a WaSC-only upper quartile target based on actual historical performance (2016/17 onwards). This would result in a PR24 PCL of 7 minutes 31 seconds. [32] Taking the upper quartile is still stretching – most WaSCs

[32] TW DD Response – Outcome Evidence Library, Mitigations Analysis tab

including ourselves have not achieved this level in recent years. It will ensure that companies are still incentivised to achieve stretching targets.

Whilst we still consider our Business Plan to be the right target level of being stretching and realistic for Thames Water, we recognise Ofwat may continue to intend to set a common target. A common WaSC target, based on actuals rather than over-optimistic forecasts, is a plausible way to achieve this aim. This target can then be maintained throughout AMP8.

Large events skew Thames' baseline performance and should be subject to a cap.

The main cause of our poor performance on the WSI metric is the occurrence of a small number of large events throughout the year. Part of this is reflected in the above analysis of WaSCs and WOCs, but there are also factors unique to Thames Water.

On average, Thames Water has around six large events per year. If large events were discounted from our WSI performance, our underlying base performance would be closer to the target level of 5 minutes. Taking 23/24 as an example, Figure 13 below demonstrates that Thames Water's WSI performance was 00:16:56 including large events and 00:07:05 excluding large events, implying that large events had an impact of 00:09:51 on Thames Water's overall WSI performance. This trend can be seen throughout most of AMP7.

Smaller companies do not have assets on the scale of ours – where a single event can impact very large populations and require time to rectify. We are also simply much more likely to experience a large event in a year than smaller companies due to size. Where other companies may have one really challenging event every few years (and so perform well in most years in the data), we can have six a year, simply due to our relative size.

Figure 13 - Thames Water's large events and impact on WSI performance

		2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Thames Water Supply Interruptions performance		00:24:23	00:18:57	00:17:59	00:13:39	00:11:03	00:19:54	00:16:56
Performance if large events capped at 20,000 property hours		00:15:35	00:18:05	00:11:13	00:07:15	00:07:25	00:10:42	00:07:05
Impact of large events		00:08:48	00:00:52	00:06:46	00:06:24	00:03:38	00:09:12	00:09:51
*Sizeable contributing events:								
Fobney WTW	Raw water deterioration following Storm Alex				00:01:46			
Hampton WTW	Pumping station failure			00:04:44				
Netley Mill Water Treatment Works	Complications during planned maintenance, water quality shut-downs and power outages				00:00:31	00:01:05	00:01:44	
Bromley	Trunk main failure	00:01:44						
Freeze Thaw	Norwood 12inch and 18inch	00:05:28						

		2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
	trunk main failure							
Queens Drive	Trunk main failure			00:01:41				
Hackney Marshes	Trunk main failure				00:04:40			
Hendon, NW4	Two trunk main bursts					00:03:02		
Oxford Heyford Hill							00:05:49	
Belsize Road, NW6							00:02:06	
Guildford Event	Storm Ciaran caused supply issues at our production sites							00:08:55
Footscray Road	Trunk main failure							00:01:00
Number of other large events	Total	12	8	4	1	2	3	3

If Ofwat is not going to set a WaSC-only PCL for WSI based on actuals and is set on keeping the 5-minute WSI target, then we propose that a cap be implemented for large events, particularly given the significant impact large events have on WSI performance for companies like Thames Water. In AMP6, the Performance Commitment definition for WSI included a cap of 20,000 property hours (approximately 18 seconds) for a single event. At AMP7, this cap has no longer existed in the common industry-wide definition.

We propose to revert to an approach similar to AMP6, with a cap of 20 seconds for large events being included for AMP8, which is greater than the 18-second cap included in AMP6, giving companies stretching performance incentives. The approach in AMP7 with no caps and no exclusions has been a useful regulatory experiment, but ultimately the approach used in AMP6 and by Ofgem for RIIO (which allows for exemptions for exceptional events)[33] is a more appropriate way to incentivise companies to improve without being unduly punitive.

Large events are not always easy for Thames to address, particularly around London, due to population density and traffic making it difficult to make repairs in time. For factors within our control, we are trying to address them by investing in better power controls, clean water tanker drivers (allowing us to respond more quickly to supply interruptions), improving our ability to maintain customer supplies whilst we complete repairs, investing in technology to enable remote isolations and live data of all our valve operations, improving our network valve and other asset availability, and improving the tools and equipment our technicians hold. Other companies that also operate in densely populated areas face similar issues, but none at the same scale as us. This exposes more properties to interruption events when water mains fail meaning that a single event can have a big impact on our performance.

Our Long-Term Delivery strategy envisages a 25-year programme to improve water supply resilience prioritised on risk. Our programme aims to mitigate risk above the risk appetite threshold determined by customers (>48 hours) by 2050. Additionally, we will address 328km of our trunk mains over the period to 2050, which are those representing the greatest level of risk.

[33] RIIO ED2 Final Determination Core Methodology, p183 – 185.

Although we have been investing in mitigation measures and will continue to do so through AMP8, Thames Water's unique characteristics and regional location still make large events challenging to address. Hence, we view a 20-second cap on large events to be appropriate, while still providing adequate challenge.

Mains rehabilitation secures a sustainable solution to WSI for customers and is completed in a planned and warned approach. It is not cost effective to complete mains rehabilitation within a 3-hour duration. Completing mains rehabilitation with 3-hour isolations and / or extensive alternative water supplies increases unit costs for each customer and therefore does not provide the best outcome. Thames Water therefore proposes that Ofwat should only penalise if the duration of the outage exceeds the notified duration

Severe Water Supply Interruptions

In its PR24 Draft Determinations, Ofwat said it was minded introducing a new Performance Commitment on severe Water Supply Interruptions at PR24 and was consulting on the definition. This was mainly to address concerns from customers around the high impact of Water Supply Interruptions and to incentivise companies to stretch their performance more in this area.

However, Ofwat recently issued a clarification that it now considers that the development of its approach to longer interruptions would benefit from more time to engage with stakeholders on how best to secure the right outcomes for customers. Hence, we understand that a draft definition is not being published at this stage, while Ofwat considers further how best to challenge the sector to reduce long interruptions through the various regulatory tools it has at its disposal, which are not limited to Performance Commitments.

We are pleased with Ofwat's clarification as we feel that introducing severe Water Supply Interruptions as a new Performance Commitment would lead to double jeopardy for Thames Water, given that a Performance Commitment for supply interruptions already exists. Our aversion to severe Water Supply Interruptions as a new Performance Commitment does not impact our continued commitment towards reducing severe interruptions and benefiting customers. We look forward to engaging constructively with Ofwat on proposals regarding how best to further mitigate severe Water Supply Interruptions.

At present, we consider that severe Water Supply Interruptions are adequately addressed through the WSI PCL and ODI penalties.

Our concerns around the ODI rate methodology

In its PR24 Draft Determination, Ofwat has set ODI rates for WSI based on PR19 performance incentives. This leads to an ODI rate of £1.73m. Our view is that the £1.73m ODI rate is a fair determination if Ofwat sets a cap of 20 seconds for large events, but is unnecessarily punitive otherwise, particularly when combined with a 1% collar. We propose that if Ofwat does not set a cap of 20 seconds for large events, then it should set an ODI rate of £0.99m based on our proposed adjustments outlined in Section 3 of this document.

Our proposal to Ofwat

- We propose that Ofwat revisit the 5-minute target and introduce a WaSC-only PCL target driven by historical upper quartile WaSC performance of 7 minutes 31 seconds that is maintained throughout AMP8. Alternatively, retain the 5-minute target but include a 20-second cap on large events. In addition:

- We propose that Ofwat only penalise Thames Water for planned interruptions due to mains rehabilitation work, if the duration of the outage exceeds the notified duration. This avoids us being penalised for efficiently incurred planned supply interruptions which are delivered effectively.
- We propose the collar is set at 0.5% in line with other Performance Commitments, not to 1%. We set out the rationale for this in Section 4 of this document;
- We propose that Ofwat set an ODI rate of £0.99 million based on our proposed adjustments outlined in Section 3 of this document. If Ofwat does introduce a cap of 20 seconds for large events, then we are less concerned about the overly punitive ODI rate, as the PCL will be a fairer bet.
- Finally, we also disagree with the introduction of a new Performance Commitment for severe WSI, which would create an unnecessary double jeopardy.

Figure 14 - WaSC-only target based on actuals (no cap on large events)

	2025-26	2026-27	2027-28	2028-29	2029-30
Our Business Plan submission	00:10:18	00:10:03	00:09:48	00:09:32	00:09:17
Ofwat proposal	00:05:00	00:05:00	00:05:00	00:05:00	00:05:00
Our alternative PCL proposal	**00:07:31**	**00:07:31**	**00:07:31**	**00:07:31**	**00:07:31**

Figure 15 - Target with 20-second cap on large events

	2025-26	2026-27	2027-28	2028-29	2029-30
Our Business Plan submission	00:10:18	00:10:03	00:09:48	00:09:32	00:09:17
Ofwat proposal	00:05:00	00:05:00	00:05:00	00:05:00	00:05:00
Our alternative PCL proposal	**00:05:00**	**00:05:00**	**00:05:00**	**00:05:00**	**00:05:00**

6. Leakage

Key points

- Ofwat has requested that Thames Water set an even more ambitious Leakage target. In line with this request, we have increased our level of ambition. We will aim to reach an annual average performance level of 407.7 Ml/d by the end of AMP8 instead of 411.0 Ml/d.
- Our latest forecast for the leakage level at the end of AMP7 (2024/25) increased from 507.4 Ml/d to 527 Ml/d. We are making stretching efforts to reduce our leakage level. We aim to reach our 407.7 Ml/d target by the end of AMP8.
- We propose to adjust the PCL glidepath in AMP8 with the updated forecast of our leakage level, from 527 Ml/d at the end of AMP7 to 407.7 Ml/d by the end of AMP8. Without adjusting the PCL set in the DD, we would face disproportionately punitive penalties and risk achieving our leakage targets every year of AMP8.
- We propose to reduce the ODI rate from £0.91m to £0.60m by using whole sector median rate and incorporating latest 2023/24 performance data.
- We propose a cap and collar of 0.5% RoRE.

Figure 16 - AMP8 proposals – Leakage

	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals						
TW forecast - Draft Plan	22.5%	29.3%	32.7%	35.1%	37.1%	
Ofwat PCL	24.4%	29.3%	32.7%	35.1%	37.1%	
Ofwat ODI rate						£6.13m
Forecast ODI Penalty	(£11.5m)	(£0.3m)	(£0.2m)	(£0.3m)	(£0.3m)	**(£12.5m)**
TW Draft Determination Response						
TW update forecast	21.3%	26.5%	30.6%	33.8%	36.7%	
Rebased ODI rate						£4.02m
TW Proposed PCL	23.3%	27.5%	30.6%	33.8%	36.7%	
Forecast ODI Penalty	(£8.0m)	(£3.8m)	£0.0m	£0.2m	(£0.2m)	**(£11.8m)**

Context

Ofwat stated in its Draft Determination that Thames Water should propose a more ambitious Leakage reduction forecast. In response, we have made the following notable changes to our AMP8 Performance Commitment Level:

- We propose to achieve 1.8 Ml/d additional leakage reduction in AMP8 to increase ambition in our Swindon Oxford (SWOX) Water Resource Zone (WRZ).
- Following the cancellation of the AMP7 Green Economic Recovery programme and resultant re-profiling of metering activity, we also expect an additional 1.73 Ml/d of Leakage reduction to be achieved in AMP8.

We have updated our plans to include these changes and allocated base funding within our plan to enable recovery from a forecast shortfall in Leakage reduction over AMP7.

We propose to adjust the PCLs through AMP8 such that our Leakage reduction glidepath in the updated plan would reflect on-target performance in AMP8, while accepting the impact on the 3-year average outturn in the first two years of AMP8 from the forecast underperformance in AMP7.

As noted in Section 3, we disagree with Ofwat's methodology of setting separate median ODI rates for large and small RCV water companies, as there is no inherent reason for a smaller ODI rate for WOCs to be counterbalanced with an increased ODI rate for WaSCs. We also note that there is 2023/24 APR data available now to include when setting ODI rates – 2023/24 APR data has not previously been captured in Draft Determinations.

Our proposals to enhance our Leakage plan

We are increasing our level of ambition

In the Draft Determination, Ofwat stated, '*we expect the company [Thames Water] to propose a more ambitious Leakage reduction and explain how this targets baseline deficits across all its water resource zones. These proposals should align with its final WRMP. If the company does not adjust its ambition or provide sufficient and convincing evidence to explain why this is not possible, we will intervene to set a more stretching Performance Commitment level for 2029-30 at final determinations.*'[34]

Our regulator has previously commented on our rdWRMP, stating that we should increase leakage reduction in our SWOX WRZ and retain our proposed Leakage reduction in London, rather than move leakage reduction from London to SWOX (as we had proposed in our draft Business Plan). In line with this request, we have increased the ambition of our Leakage reduction programme, increasing reduction proposal in our SWOX WRZ by 1.8 Ml/d in AMP8, and by 11 Ml/d by 2050. This increased level of ambition targets baseline deficits across all our WRZs. This change is reflected in our Draft Determination response and will also be reflected in our final WRMP24.

We have amended our metering programme to reflect the changes to the Green Economic Recovery metering programme

We have amended the scope of our AMP7 metering programme and the proposed scope of our AMP8 metering programme. Due to the resultant changes in our ability to detect customer-side leaks, our proposed PCLs for Leakage have changed.

The metering programme set out in our PR24 Business Plan submission was founded on the assumption that we would deliver our proposed Green Economic Recovery (GER) metering programme. Following Ofwat's decision not to amend the funding conditions for the scheme, Thames Water was left with no option but to cancel the GER programme.

This means that our forecast Leakage for the end of AMP7 and beginning of AMP8 is slightly higher than we had forecast in our rdWRMP24. We have adjusted our metering (and as a result, customer-side leakage) programme to re-profile the meter installations initially included within the GER scope. This takes into account insight gained from the survey programme which was carried out prior to the decisions referenced above. As a result, we have significantly increased

[34] Ofwat; PR24 Draft Determinations Thames Water Outcomes Appendix; Page 5

the proposed size of our selective metering programme (known as PMP) and expect to increase our level of ambition by 1.73 Ml/d in AMP8.

Performance Commitment Levels to reflect updated Leakage reduction glidepath.

Our PR24 Business Plan (October 2023) included a Leakage reduction of 96.20 Ml/d from an end of AMP7 (2024/25 annual average) Leakage level of 507.2 Ml/d. Adding the above changes and adjusting the end of AMP7 level to 507.4 Ml/d in line with the rebaselined AMP7 PCLs following from water balance improvements in AR24, we would achieve a 99.73 Ml/d reduction to 407.7 Ml/d annual average Leakage at 2029-30.

However, since our October 2023 submission, our latest forecast for Leakage level at the end of AMP7 (2024/25 annual average) has been updated to be 527 Ml/d as compared to the previous target of 507.4 Ml/d. Extreme weather events in 2022/23 (a prolonged drought in summer followed by freeze/thaw events in winter) significantly increased our Leakage levels and impacted all companies.

Whilst we have been recovering rapidly from this challenging year and will strive to recover performance in the final year of AMP7, we do not expect to begin AMP8 at our original targeted levels. To address this, we have increased our internal Business Plan to recover this 19.6 Ml/d AMP7 Leakage reduction shortfall over AMP8, enabling us to reach the 2029-30 annual average Performance Commitment level of 407.7 Ml/d. We have built a phased plan of Leakage reduction interventions through AMP8. This starts from a forecast AMP7 exit level, then provides a glidepath of forecast annual average Leakage levels through AMP8.

To reflect these changes, we propose to adjust the yearly PCLs through AMP8 such that performance in line with the Leakage reduction glidepath we have set out from 527 Ml/d in 2024-25 to 407.7 Ml/d in 2029-30 would reflect on-target performance in AMP8. We recognise that the PCLs for the first two years of AMP8, being derived from the rolling 3-year average Leakage targets, should be set to reflect the PCLs for the last two years of AMP7. Consequently, we expect that the forecast reduction glidepath would result in 3-year average Leakage showing underperformance against PCLs in the first two years of AMP8, reflecting underperformance at the end of AMP7, before aligning to PCLs in the last three years of AMP8.

This proposal is in response to our concerns that if Ofwat does not adjust the PCLs from those set out in the Draft Determination, we would likely fail to achieve our Leakage targets in every year of AMP8. This would result in significant ODI penalties as a result.

We consider that our proposal is fair and proportional and reflects where we are as a business. We note that under our proposed PCLs (should Ofwat not accept our Business Plan performance levels), for the first two years we would be paying AMP8 ODI penalty rates for our underperformance in AMP7. These rates are significantly higher. Furthermore, we are proposing to fund the additional activity required to close the forecast 19.6 Ml/d AMP7 Leakage reduction shortfall through base cost, rather than seeking any additional funding. This is only right, to ensure customers do not pay twice for Leakage reduction which should have been achieved in AMP7 with PR19 funding.

Our concerns around the ODI rate methodology

Ofwat has increased the ODI rate for Leakage by 2.5x, from an indicative rate of £0.36m/Ml/d to £0.91m/Ml/d in Draft Determination. This high-powered incentive rate increases financial risks if companies fail to perform well. However, 2023/24 APR data suggests that 11 out of 17 water companies have failed to meet Ofwat's benchmark and are facing penalties. We have serious

concerns with the size of the ODI rate, especially given challenges to meet Ofwat's stretching target.

As specified in Section 3 of this document, we disagree with Ofwat's methodology of setting separate median ODI rates for large and small RCV water companies. We understand the need for a separate median rate for WOCs with smaller RCVs. However, there is no inherent reason for companies with large RCVs to be faced with a higher median unit rate as a result of a regulatory protection put in place for smaller companies.

We also note that there is 2023/24 APR data available now to include when setting ODI rates. It was not available when Ofwat issued the Draft Determination and therefore was not captured.

Our proposal to Ofwat

Building on our above concerns, we propose three changes in Ofwat's Draft Determination.

We propose to adjust our PCLs for Leakage, to reflect the revised 2019-20 3-year average baseline (following introduction of improvements to the water balance calculation in AR24), and to align with the more ambitious Leakage reduction glidepath we have set out. Figure 17 and Figure 18 show the changes in our baseline and proposed PCLs for Leakage. We will align with these values in our WRMP24.

- We propose to use the rebased ODI rate set out in the ODI Rates section (Section 3) of this document. Accounting for these changes, ODI rates reduces from £0.91m/Ml/d in Draft Determination to £0.60m/Ml/d.
- Finally, as set out in the Caps and Collars section of this document, we propose a cap and collar of 0.5% regulated equity.

Figure 17 - Baseline Levels

		2017/18	2018/19	2019/20
October 2023 submission	AA	699.4	694.0	629.8
	3-yr rolling	-	-	674.4
Revised Plan (Aug 24)	AA	698.3	692.8	627.6
	3-yr rolling	-	-	672.9

Figure 18 - AMP8 Leakage PCLs[35]

		2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
rdWRMP24 (Aug 23)	AA	619.7	587.3	507.2	472.7	451.5	438.0	424.5	411.0
	3-yr rolling	602.2	600.3	571.4	522.4	477.1	454.1	438.0	424.5
	3-yr % reduction from 2019-20	10.7%	11.0%	15.3%	22.5%	29.3%	32.7%	35.1%	37.1%
Draft Determination	AA		549.7	507.2	472.7	451.5	438.0	424.5	411.0
	3-yr rolling				509.9	477.1	454.1	438.0	424.5
	3-yr % reduction from 2019-20				24.4%	29.3%	32.7%	35.1%	37.1%
Our proposed PCL[36]	AA		548.9	507.4	491.4	464.4	445.2	425.9	407.7
	3-yr rolling				515.9	487.7	467.0	445.1	426.2
	3-yr % reduction from 2019-20				23.3%	27.5%	30.6%	33.8%	36.7%
	3-yr rolling (calculated from % reduction in line above, for ODI purposes)				516.1	487.9	467.0	445.5	425.9

Figure 19 - AMP8 Leakage performance forecast

		2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Our forecast performance (Aug 24)[37]	AA	613.5	570.4	527.0	491.4	464.4	445.2	425.9	407.7
	3-yr rolling	598.3	591.9	570.3	529.6	494.3	467.0	445.1	426.2
	3-yr % reduction from 2019-20	11.1%	12.0%	15.3%	21.3%	26.5%	30.6%	33.8%	36.7%

[35] Please note: Some values in the tables have been presented to 1 dp, meaning that they will not add up to AMP8 totals (Forecast ODI penalties in Figure 16) or corresponding 3-year average values or % reduction values. We have sought to align values with corresponding data tables.

[36] Our proposal for the 3-year average leakage PCLs in 2025-26 and 2026-27 have used the annual average (AA) leakage as inferred from the AMP7 PCLs for 2023-24 (548.9 Ml/d) and 2024-25 (507.4 Ml/d), to reflect what should be considered on-target performance in the last years of AMP7. This is consistent with the approach used by Ofwat in its Draft Determination.

7. Per Capita Consumption (PCC)

Key points

- We are committed to our business plan submission which shows stretching but realistic improvements to reduce customers' consumption.
- The Covid adjustment proposed is insufficient and not based on the best available evidence. Combined with a starting point of a very stretching set of target levels, this does not give us an appropriate starting point which is stretching but achievable for 2025/26.
- The proposed PR24 PCLs assume the introduction and successful delivery of key Government policies which may or may not happen and are entirely beyond our control. We should not be exposed to this material risk.
- We propose that Ofwat uses the best available evidence for the Covid adjustment and includes a mechanism to adjust for Government policy – this could be done through a conditional deadband.
- We propose that Ofwat reduce the ODI rate from £1.95m to £0.94m by incorporating 2023/24 performance range data, using an industry-wide median unit rate, and using a RoRE % of 0.4% instead of 0.6%. Further detail on our proposed changes to the ODI rate methodology can be found in Section 3 of this document.

Figure 20 - AMP8 proposals – Per Capita Consumption

	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals						
TW forecast - Draft Plan	3.6%	4.2%	4.8%	5.1%	5.4%	
Ofwat PCL	6.4%	7.4%	7.3%	7.5%	7.8%	
Ofwat ODI rate						£2.85m
Forecast ODI Penalty	(£8m)	(£9m)	(£7m)	(£7m)	(£7m)	**(£38m)**
TW Draft Determination Response						
TW update forecast	5.5%	6.0%	6.4%	6.7%	7.0%	
Rebased ODI rate						£1.37m
TW Proposed PCL	5.5%	6.0%	6.4%	6.7%	7.0%	
Forecast ODI Penalty	£-	£-	£-	£-	£-	**£-**
TW Conditional Deadband	0.1%	0.3%	0.6%	0.8%	1.1%	

Numbers in blue cells represent Thames Water's proposed mitigations. NB: ODI rate of £1.95m converted from Lpd to percentage terms (£2.85m) and ODI rate of £0.94m converted from Lpd to percentage terms (£1.37m).

Context

Ofwat has challenged us to reduce PCC by 7.8% by 2030, compared to 2019-20 levels.

We remain of the view that PCC is a poor measure of company performance in delivering reductions in household water demand, given that we have very limited control over end-consumption. We consider that a more appropriate measure is volume of water saved in

megalitres per day, as per our WRMP and as per the demand reduction activities that we have control of and are funded to deliver through the Price Review process. However, recognising where we are in the determination process, we have sought to engage constructively with the specific details of the parameters.

While we are set to make our contribution towards achievement of the national targets of 122 l/h/d by 2037/38 and 110 l/h/d by 2049/50, we are concerned about the PCC target for AMP8 for the following reasons:

- Ofwat's current Covid adjustment has been set too low. Ofwat has applied a +1.8% factor for ongoing PCC uplift, whereas a more detailed report produced by expert consultants Artesia and Frontier Economics estimates an ongoing +2.7% uplift.
- Ofwat has set performance targets based directly on data from the rdWRMP24. There is an explicit reliance on the Government delivering water efficiency benefits in our rdWRMP24 (2 l/h/d in AMP8). This is entirely outside of Thames Water's control. We propose the application of a conditional deadband, as we consider this is a pragmatic way to manage the very significant uncertainty for this Performance Commitment.
- The targets we were set at PR19 - even accounting for subsequent Covid-19 adjustments - were not accompanied by appropriate funding. The PCLs should be set at the updated forecast levels stated in this document and our revised tables submission.
- Ofwat's ODI rate for PCC sets a level of RoRE at risk that is not reflective of the exogenous factors outside of Thames Water's control that impact PCC. We have detailed this further in Section 3 of this document.

Updated forecast of household and non-household consumption

We have updated our forecast of household and non-household consumption. This is to make sure we are using the most up to date information on which to base our PCLs. As a result our proposed PCLs for PCC and Business demand has changed slightly. We have made the following updates to our forecast, which will be reflected in our final WRMP.

- Metering programme: We have updated the scope of our AMP7 metering programme and the proposed scope of our AMP8 metering programme. The metering programme set out in our PR24 Business Plan submission was founded on the assumption that we would deliver our proposed Green Economic Recovery (GER) metering programme. Following Ofwat's decision not to amend the funding conditions for the scheme, Thames Water was left with no option but to cancel the GER programme. This means that our forecast PCC for the end of AMP7 and beginning of AMP8 is higher than we had forecast in our rdWRMP24. We have adjusted our metering programme to re-profile the meter installations initially included within the GER scope, considering insight gained from the survey programme which was carried out prior to the decisions referenced above. As a result, we have significantly increased the proposed size of our selective metering programme (known as PMP).
- Water balance reporting improvements: As per our Annual Performance Report 2024 (APR24), in the 2023-24 reporting year we have improved our water balance reporting methodology to increase our compliance with Ofwat common guidance. This has brought us closer to full compliance, bringing the water balance discrepancy within +/-2% of distribution input. Recognising the great importance that we, our customers and our regulators rightly place on accuracy and consistency of information over time, we have applied these methodology improvements to our previously reported performance. As a consequence, the baseline has been reset so that our current performance is reported on a

consistent basis, and we have revised our PCLs for Leakage, PCC and NHH demand accordingly.

- Population data: The PCL level for PCC that we proposed in our October 2023 business plan tables was different to that included in the rdWRMP24. This was because a different population forecast was included in SUP1A compared to our rdWRMP24. We have re-based our population forecast in SUP1A to align with an AR24 reported population figure and the population forecasts now align more closely, though they are still different with the population forecast in SUP1A being approximately 1% lower. [38] In response to a query that we submitted, Ofwat stated that we should use population as per our SUP1A table as the basis for our PCC forecast in our business plan resubmission.
- Updating to latest outturn data: The base year for our demand forecast has been updated to the AR24 outturn water balance. The AR24 outturn water balance shows a reduction in household consumption compared to the previous reporting years, and an increase to non-household consumption. It is not yet clear why this has happened or if it will be a lasting change – it could be to do with post covid adjustments, people reducing their water use as a result of the cost-of-living crisis or something else. This highlights the inherent uncertainties with forecasting PCC.

The factors above combine to result in changes to our proposed baseline and PCLs. Figure 21 and Figure 22 show the changes in our baseline and proposed PCLs for PCC.

Figure 21 - Baseline levels

		2017-18	2018-19	2019-20
October 2023 submission	AA	145.8	147.1	144.9
	3-yr rolling	-	-	146.0
August 2024 submission	AA	145.2	146.4	144.1
	3-yr rolling			145.2

Figure 22 - AMP8 PCC PCLs

		2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
rdWRMP 24 (Aug 23)	AA	140.6	139.4	138.9	136.9	136.2	135.4	134.5	133.8
	3-yr rolling			139.6	c				
	3-yr % reduction from 2019-20			4.3%	5.1%	5.9%	6.7%	7.2%	7.8%
Draft Determination	AA	142.5	139.7	135.1	135.2	135.3	135.4	134.5	133.8
	3-yr rolling			139.1	136.7	135.2	135.3	135.1	134.6
	3-yr % reduction from 2019-20			4.7%	6.3%	7.3%	7.3%	7.4%	7.8%
	AA	139.9	138.2	137.2	136.4	136.0	135.5	135.1	134.7

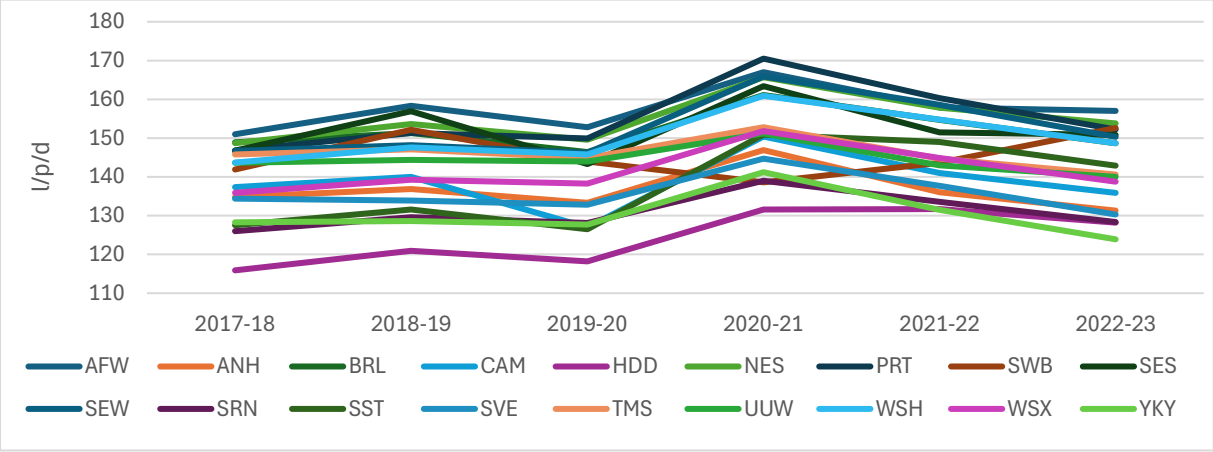
[38] For example, in our rdWRMP24 we forecast that the population in 2029/30 will be 11.18M. In SUP1A the 2029/30 population forecast is 11.02M. This is a difference of approximately 135 thousand people or just over 1%.

Revised Plan (August 2024)	3-yr rolling			138.4	137.3	136.5	136.0	135.5	135.1
	3-yr % reduction from 2019-20 (SUP1A population)			4.7%	5.5%	6.0%	6.3%	6.6%	7.0%
	3-yr % reduction from 2019-20 (WRMP population)			5.4%	6.0%	6.5%	7.1%	7.7%	8.2%

The current Covid adjustment is insufficient and not based on the best available evidence

The rise in the percentage of people working from home due to Covid has had a lasting and significant impact on Per Capita Consumption (PCC). It is anticipated that this impact will continue to be felt in the future. Covid and post-Covid hybrid working has resulted in an impact on the current three-year rolling average water consumption of +5.87%.[39]

Figure 23 – Historical PCC trends



Source: Ofwat 'Historical performance trends for PR24', 2022/23 data from Ofwat review of water company APRs. Europe Economic analysis.

Ofwat has applied an uplift of 1.8% to account for increased PCC resulting from factors such as home working. However, in a study conducted by expert consultants, Artesia and Frontier Economics, and supported by the Environment Agency, detailed analysis of data for Thames Water forecast an impact of +2.7%.

The phase 1 report by Artesia utilised hourly data from hundreds of thousands of smart metered properties, to generate very detailed and Thames-specific findings. In our consideration, the more detailed analysis conducted for Thames Water's supply area by Artesia and Frontier Economics should be prioritised over the more general research undertaken by Europe Economics, as outlined in Figure 24 below. The target should be based on the 2.7% value, as the best available evidence. Anything else would be inappropriate.

[39] Water use shock event effects and future regulatory treatment Phase 2 Report | Artesia and Frontier Economics

Figure 24 – Europe Economics and Artesia/Frontier Economics Covid adjustment comparison

Europe Economics	Artesia and Frontier Economics
Use of limited consumption data	Use of extensive consumption data
Use of 'high-level' data	Use of millions of data points and a more rigorous methodology

We should not be responsible for whether a Government policy on water labelling is introduced and implemented. The Strategic Policy Statement does not state that water companies are to be held accountable for the entire DEFRA water target agenda.

The strategic policy statement (SPS) for Ofwat states that Ofwat should '*hold companies to account* ***for their contribution towards*** *reducing personal water consumption to 110 litres of water per head per day (l/h/d) by 2050*).[40] [41] The SPS does not state that water companies are to be held accountable for the entire DEFRA water target agenda.

As currently calculated, the proposed PCL places the risk of successful Government policy contributions onto Thames Water. The introduction and success of Government policy is assumed in our targets. If this does not come to pass and as a result we are not able to meet the targets, we would be incur penalties.

In Thames Water's rdWRMP24, demand reduction from a wide range of measures has been included. This is in line with achievement of the Government targets set out in the Environmental Improvement Plan. Company-led measures which will influence PCC include:

- Smart meter installation;
- Meter upgrades;
- Water efficiency activities; and
- Innovation.

We are relying on Government-led initiatives to achieve our PCC targets. This is outside of Thames Water's control.

Our rdWRMP24 explicitly states we will rely on Government-led initiatives to achieve the PCC performance level set out. Government-led initiatives include: water labelling; imposing minimum water efficiency standards on white goods; and changes to building regulations. If these are not introduced or are less effective than planned, we will not be able to deliver our PCC target.

The success of these Government led initiatives in reducing household consumption levels is outside of Thames Water's control. Some interventions may not be introduced as hoped or may be introduced later than we assume. In the Draft Determination. Ofwat has directly lifted target levels from the rdWRMP24 submission, inclusive of Government-led initiatives. It has then set these as the PCC target to be achieved by Thames Water for AMP8.

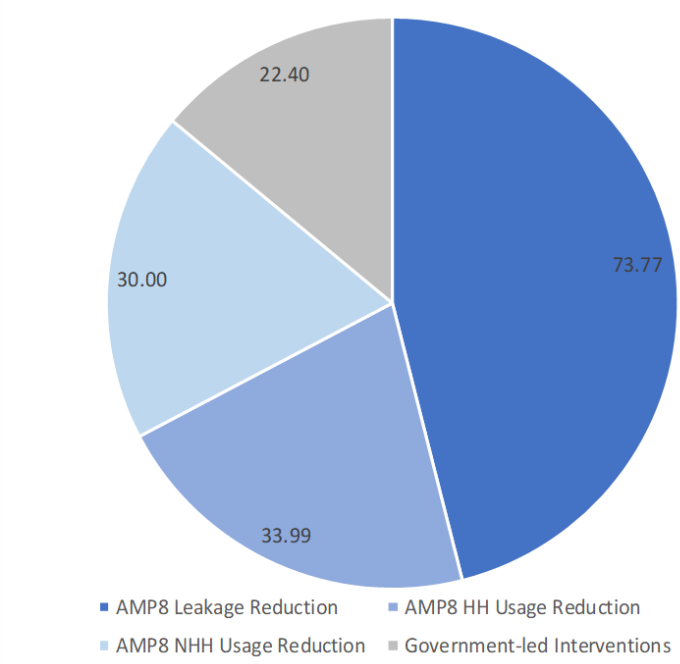
[40] Defra, 2022, The government's strategic priorities for Ofwat, https://www.gov.uk/government/publications/strategic-policy-statement-to-ofwat-incorporating-social-and-environmental-guidance/february-2022-the-governments-strategic-priorities-for-ofwat

[41] The emphasis in bold has been added to the quote.

Figure 25 below shows the composition of our rdWRMP24 submission for demand reduction for AMP8 (Mld demand reduction from PR24 funded activities). It comprises of household usage reduction, non-household usage reduction, and Government led interventions.

The approach of Ofwat setting a PCC target inclusive of Government led initiatives places undue financial risk on Thames Water. This is because it has not acknowledged the role of factors outside or with limited management control in achieving the proposed PCL levels. For example, from the four policy areas noted above, if the Government does not introduce the water label or if it is not as effective as expected (we have included a 2 l/h/d benefit by 2030 in our WRMP), we forecast that we would be penalised by £3.89m over the AMP at our proposed ODI rate of £0.94 or £8.06m at Ofwat's Draft Determination ODI rate of £1.95m.

Figure 25 - AMP8 Mld demand reduction volumes, WRMP24



Water Efficiency PCD makes explicit references the role of the Government in making water efficiency interventions. However, PCC Performance Commitment does not. Ofwat should rectify this asymmetry.

It is notable that in the definition of the Water Efficiency PCD Ofwat explicitly states that companies should exclude water efficiency gains from Government interventions such as mandatory water labelling when identifying the benefits delivered through water efficiency activities. No such reference to the role of the Government in making water efficiency interventions is referenced in the PCC Performance Commitment. This asymmetry in approach should be rectified in the final determination.

It should also be noted that there is no mechanism in which to measure the actual demand reductions that might be occurring through any of the Government-led interventions.

We propose a conditional deadband being introduced.

We propose a conditional deadband being introduced. Should a policy not be introduced, then deadband applies. If the policy is introduced, the deadband is not applied.

This is a simple mechanical process that reduces the risk of Government policy change. We still remain exposed to the risk of the policy being introduced but being ineffective, despite it being beyond our control. This is a simple version of the uncertainty mechanisms applied in energy, for example the heat policy re-opener planned for RIIIO-3. [42] Whilst the final mechanism is not yet designed in detail, Ofgem's intent is for the re-opener to be triggered when Government makes a decision on the future of heat. At this point companies will be able to provide additional submissions on the implications of this policy decision for specific parts of their plan.

Figure 26 below shows Thames Water's PCC baseline and forecasts to achieve DEFRA's national targets by 2050. The conditional deadband would be calculated based on the difference between the blue line (PCC reduction glidepath from Thames Water's demand reduction initiatives) and the green line (PCC glidepath from Thames Water's demand reduction initiatives combined with Government policy initiatives).

The main Government initiative expected to be introduced in AMP8 is water labelling. Our conditional deadband reflects this level and would be triggered if water labelling is not implemented by 2025. This is shown in Figure 26.

Figure 26: PCC baseline and forecast by source of reduction

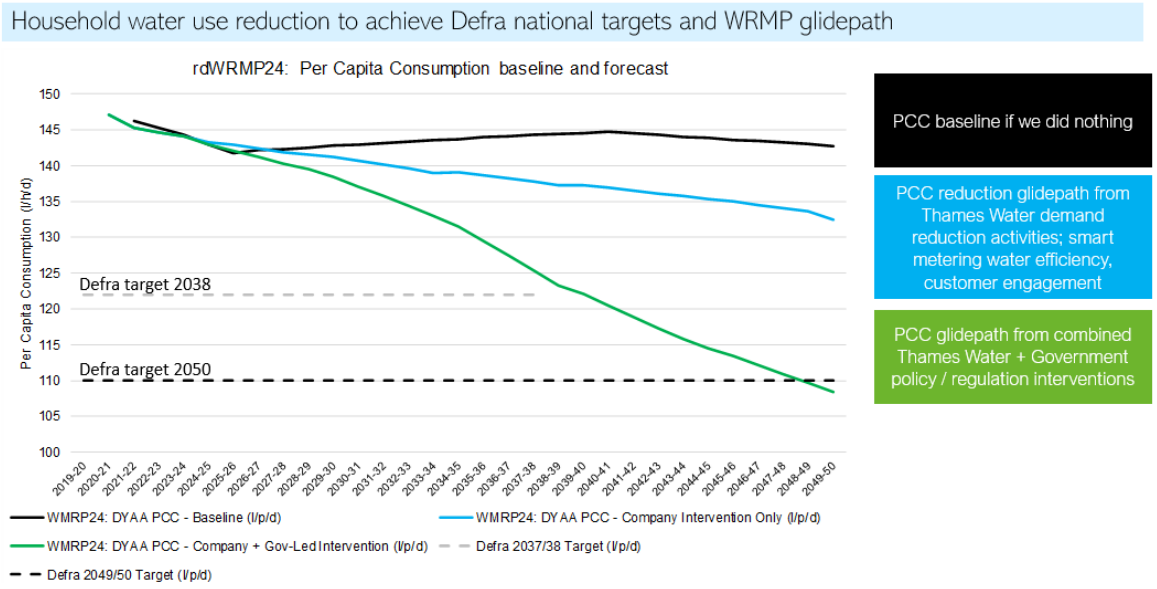


Figure 27 - Our proposed conditional deadband

	2025-26	2026-27	2027-28	2028-29	2029-30
Water labelling - Forecast Annual Average Impact on PCC (l/h/d)	0.4	0.8	1.2	1.6	2.0
Water labelling - Forecast 3-yr Rolling Impact on PCC (l/h/d)	0.1	0.4	0.8	1.2	1.6

[42] RIIIO-3 Sector Specific Methodology Decision – GD annex (p20-22)

Water labelling conditional dead band - Forecast 3-yr Rolling Impact on PCC (% reduction compared to 2019-20 3-yr RA)	0.1%	0.3%	0.6%	0.8%	1.1%

Inadequate PR19 funding for addressing PCC.

In the Draft Determination, Ofwat adjusted the PCLs for the early part of AMP8. It diverged from our rdWRMP24. The adjustment that Ofwat has made is based on taking our PR19 PCLs and uplifting these to account for the ongoing impacts of increased home-working etc. The Europe Economics analysis and report has been used to inform the adjustment it has put in place. As highlighted above, we maintain this is not an adequate uplift.

As we have previously explained, our consideration is that the AMP7 PCC ODI was never aligned to WRMP19 demand reduction activity scale, nor were we funded to achieve the AMP7 PCC PCLs through PR19.

The PCC ODI set in PR19 would have required our AMP7 smart metering and water efficiency activities, already the sector's largest, to be more than doubled in Ml/d reduction scale. The result of this approach is that despite meeting or exceeding the Ml/d reduction volumes as per WRMP targets and that we were funded to deliver, the use of PCC as the ODI metric still risks a penalty in AMP7.

Ofwat should set the PCLs for the early years of AMP8 in line with our revised forecast for PCC

The fact that we are relatively close to achieving the PR19 PCLs highlights the uncertainty associated with using PCC as a metric. Adopting PR19 PCLs as the starting point for the PR24 PCLs carries this flaw into AMP8.

The PCLs for the early years of AMP8 should be set in line with our revised forecast for PCC (as set out in our proposed PCLs). We maintain it should not be starting from a target that was not aligned with the funding allocation. To do otherwise would not be appropriate and we forecast would result in penalties during AMP8.

Our concerns around the ODI rate methodology

Ofwat has set an ODI rate of £1.95m for PCC in its PR24 draft determination. As detailed in Section 3, we propose that Ofwat rebases the ODI rate by including 2023/24 Annual Performance Report data and using an industry-wide median unit rate so as to not unfairly penalise Thames Water for being a company with a large RCV.

For PCC we also propose that the percentage of regulated equity at stake is reduced from high (0.6%) to low (0.4%). This is because we have only modest ability influence the outcome of PCC. Government-led initiatives and consumer behaviour are both bigger drivers of PCC performance than our actions.

Implementing these changes results in an ODI rate of £0.94m.

Our proposal to Ofwat

We propose the following changes to the Draft Determination, which taken together incorporate the best available evidence and protects companies from being responsible for whether Government takes specific policy decisions.

- Ofwat should adopt our revised PCL proposal. It has been updated to align with revisions to the AMP7 and AMP8 demand management programme. This includes the reprofiling of the Green Economic Recovery programme, which has been updated in line with improvements to the water balance calculation method.
- If Ofwat does not accept our proposed PCL proposal for the end of AMP7 and beginning of AMP8 (which diverges from PR19 PCLs), we propose that Ofwat alters the Covid adjustment from +1.8% to +2.7%.
- We also propose that Ofwat introduce a conditional deadband to mitigate targets if specific Government policies are not introduced. The size of the conditional deadband is shown in Figure 28. If the water labelling policy is not introduced by the relevant date assumed in our WRMP, then the conditional deadband 'kicks in' to avoid us being penalised. If it is introduced, the deadband is not activated. If the policy is implemented later than 2025, the deadband would be adjusted to reflect the time of the policy's implementation.
- As set out in TMS-DD-038 Thames Water PR24 DD response - Enhancement Cases, we propose that Ofwat change the cost-model approach used and the PCDs proposed for smart metering funding. Without changing the cost-model approach and proposed Price Control Deliverables (PCDs), the scale of smart metering installations and Mld demand reductions would be reduced, resulting in failure of WRMP, leakage and PCC targets, along with impacting Defra's national water target. As such, our positions set out in this document on outcomes are contingent on our other representations on enhancement funding and PCDs.
- In line with our proposals set out in the Caps and Collars section of this document, we propose a cap and collar of 0.5% for this PC.
- Ofwat should set the ODI rate at £0.94m. This rate reflects our reduction in the percentage of regulated equity at stake being reduced from high (0.6%) to low (0.4%), on top of our adjustments we have made for 2023-24 performance and an industry-wide median unit incident rate.

Figure 28 – Revised PCL values

	2025-26	2026-27	2027-28	2028-29	2029-30
Our Business Plan submission [using WRMP population][43]	5.1%	5.9%	6.7%	7.2%	7.8%
Ofwat proposal	6.3%	7.3%	7.3%	7.4%	7.8%
Our revised PCL proposal	5.5%	6.0%	6.4%	6.7%	7.0%

[43] Note that, in our Business Plan submission we included a PCC reduction profile resulting in a 2029-30 PCL of XX%. This was different to our rdWRMP24 PCC reduction profile due to the different population forecast (as referenced at the beginning of this section).

Figure 29 - Conditional Deadband – Water Labelling

	2025-26	2026-27	2027-28	2028-29	2029-30
Conditional Deadband (3-yr Rolling Impact, as a % of 2019-20 3-yr Rolling PCC)	0.1%	0.3%	0.6%	0.8%	1.1%

8. Business Demand

Key points

- We have updated our forecasts, in line with our updates to Leakage and PCC.
- The method Ofwat has used to set the PCL does not reflect the best available evidence to forecast future business demand. Correcting this brings the target in line with our WRMP.
- The ODI rate in the draft determination does not account for latest available 2023-24 data and leverages a median unit rate based on large RCV companies instead of the entire industry (taking all WoCs into account). We propose correcting these, reducing the ODI rate from **£1.19m to £1.11m**.
- The cap and collar should be set to 0.4%, reflecting the level of priority accorded to this PC in Ofwat's customer research.

Figure 30 - AMP8 proposals – Business Demand

	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals						
TW forecast - Draft Plan	9.1%	9.1%	9.3%	9.7%	10.1%	
Ofwat PCL	10.4%	11.5%	13.0%	14.5%	16.0%	
Ofwat ODI rate						£1.19m
Forecast ODI Penalty	(£2m)	(£3m)	(£4m)	(£6m)	(£7m)	**(£22m)**
TW Draft Determination Response						
TW update forecast	10.4%	10.6%	11.1%	11.7%	12.3%	
Rebased ODI rate						£1.11m
TW Proposed PCL	10.4%	10.6%	11.1%	11.7%	12.3%	
Forecast ODI Penalty	£-	£-	£-	£-	£-	**£-**

Context

In our Business Plan we proposed a Performance Commitment Level for business demand of 429.21 Ml/d in 2025/26, reducing to 421.37 Ml/d by 2029/30. Ofwat has proposed in its Draft Determination a PCL of 423.8 Ml/d reducing to 388 Ml/d by 2029/30. We continue to consider our Business Plan to be a stretching but deliverable plan which recognises our current position and the challenges involved with helping our non-household customers reduce their water use; many of which are similar to those relating to household demand (as set out in our response to the Draft Determination on PCC).

In this section we set out our concerns and points regarding:

- Our baseline (from which Performance Commitment levels are measured) and proposed Performance Commitment levels have been adjusted to account for improvements that have been made to the water balance calculation at AR24.
- The methodology used for calculating our business demand targets in the Draft Determination relies on assumptions on underlying business demand growth that are not appropriate;

- Alignment to our WRMP.

Methodological changes to the Performance Commitment

As per our Annual Performance Report 2024 (APR24), in the 2023-24 reporting year we have improved our water balance reporting methodology to increase our compliance with Ofwat common guidance. This has brought us closer to full compliance, bringing the water balance discrepancy within +/-2% of distribution input. Recognising the great importance that we, our customers and our regulators rightly place on accuracy and consistency of information over time, we have applied these methodology improvements to our previously reported performance. Therefore, the baseline has been reset so that our current performance is reported on a consistent basis, and we have revised our PCLs for Leakage, PCC and NHH demand accordingly. We have previously set out these methodological improvements to Ofwat in progress update meetings, for example on our household consumption models.

Our concerns around the Performance Commitment

The methodology for calculating non-household demand PCLs is not appropriate.

Our proposed Performance Commitment Levels for non-household demand and those from the Draft Determination (Annual Average, Ml/d) are summarised below.

Figure 31 – PCLs and DD values for non-household demand

	AR20	AR21	AR22	AR23	AR24	AR25	AR26	AR27	AR28	AR29	AR30
rdWRMP 24 and PR24 Oct 23	454.2	364.8	388.5	423.8	425.7	429.2	428.0	426.6	425.1	423.2	421.4
Draft Determination	-	-	-	423.8	423.8	423.8	416.6	409.4	402.2	395.0	388.0
Revised Business Plan (Aug 24)			391.4	427.3	423.1	425.6	423.1	420.6	417.8	414.7	411.7

* Reported in WRMP Annual Review AR24

In our consideration, the method that Ofwat has used to derive the Performance Commitment levels is inappropriate and should be amended. The proposed Performance Commitment levels should be adopted.

From our review of the Draft Determination PCL model, we understand that Ofwat has used the following approach to determine the proposed Performance Commitment levels for non-household demand:

- **Step 1:** Identify the base-year NHH[44] demand (2022-23)
- **Step 2:** Identify the forecast NHH demand in 2024-25 to set a baseline. This is the minimum of:

[44] For the purposes of this PC, we use the term Non-Household (NHH) and Business interchangeably.

- The forecast NYAA NHH demand from WRMP Table 2a
- The 2022-23 outturn demand, allowing for a historical growth trend calculated as the median NHH demand growth over the period 2012-13 to 2018-19
- Step 3: Identify a baseline growth rate to be applied from 2024-25 to 2029-30. The growth rate applied is the minimum of:
- The median annual historical change in NHH demand over the period 2012-13 to 2018-19.
- The median annual forecast change in baseline NHH demand from the WRMP over the period 2024-25 to 2029-30
- Step 4: Apply the planned NHH demand reductions from the WRMP to derive PCL levels

Our WRMP24 demand forecast includes a c.0.8% per-annum increase in the baseline NHH demand. The median annual historical change in NHH demand over the period 2012-13 to 2018-19 is -0.2%. As such, following the method above, Ofwat has imposed a significant amendment to Thames Water's proposed NHH PCLs based on having overwritten our baseline NHH demand forecast and then imposing our proposed savings on top of this.

Our consideration is that taking 2012-13 to 2018-19 as a representative 'baseline' period and applying a historical trend-based approach to baseline NHH demand forecasting is inappropriate. This is for several reasons, including:

- Over the period 2012-13 to 2018-19, factors such as industrial decline (e.g., closure of breweries and factories in our supply area) led to a reduction in baseline non-household demand. In our WRMP24 we are forecasting significant growth in areas of the service economy and in data centres. Our forecast of large growth in data centres, which have extensive water usage for cooling, is in line with National Grid expectations for new data centre connections in our region. Therefore, extrapolating future NHH demand growth from historical growth is inappropriate as economic conditions have changed and will continue to change.
- Over the period 2012-13 to 2018-19, non-household water efficiency measures were undertaken. As such, outturn figures from this period do not represent a 'baseline' (the Water Resources Planning Guideline, Section 6.5.2 states, *'Your baseline should reflect non-household demand without any further intervention'*) and it is inappropriate to use outturn values from this period to provide a baseline forecast;
- Our WRMP24 NHH demand forecast was produced by expert, independent consultants (Artesia consulting), who also produced NHH demand forecasts for all companies within the Water Resources South East region, using methods based on economic forecasting and applying best practice methodologies aligned with UKWIR methodologies. [45] Ofwat's methodology refers to determination of 'credibility' of our forecasts (by comparing our forecast baseline growth rate to a historical outturn forecast growth) but appears to not take into consideration the Water Resources Planning Guideline or any best practice guidelines. As we set out above, there are strong underlying changes in economic activity which mean the historical business demand growth in our region is not a sensible guide to future growth.
- In general, we are supportive of the degree of stretch to reduce demand that is within our control, but disagree with the approach taken to setting the underlying baseline demand

[45] Forecasting water demand components - Best practice manual. UKWIR, 97/WR/07/01. 1997.

forecast onto which this reduction is applied. We note that the underlying growth in non-household demand is not within our management control and is driven largely by economic conditions, and as such we consider that using Business Demand in Ml/d terms as a performance commitment is not appropriate. We would prefer the Performance Commitment to be based on Ml/d of NHH demand savings delivered. Our comments regarding the performance commitment are intended to be constructive on the basis of a PC that we do not agree with.

Alignment with dWRMP24 Representations.

In the 'Delivering Outcomes for Customers and the Environment' Appendix, Ofwat has included the following quotation:

- 'In their statements of response, companies have set out where they can improve on their business demand reduction ambition in their final WRMPs, and we have worked with the Environment Agency and Defra on whether this resolves our residual concerns, or whether we need to intervene at PR24 to set more stretching targets. The profile for business demand reflects our feedback on revised draft WRMPs.' (p.94)

Ofwat raised no representations to our dWRMP24 consultation concerning NHH demand forecasting and indeed Ofwat's representations to our dWRMP24 consultation welcomed the level of ambition in our non-household demand reduction programme, stating *'We welcome Thames Water's proposal to reduce business demand levels by 7.2% by 2029-30 when compared to 2019-20 baseline levels.'*[46] It is not clear to us how to reconcile this statement supporting our proposed reduction by 2029-30 (compared to 2019-20) levels and then impose a Performance Commitment requiring a 14.6% reduction by 2029-30 (compared to 2019-20). This feedback is inconsistent, and results in a target level which would far exceed the national target of 9% reduction by 2037-38 (compared to 2019-20). We have not seen any proposals to go beyond national target levels in the PR24 methodology documents or elsewhere.

The overall funding and performance target levels package resulting from the Draft Determination is undeliverable.

The application of what we consider to be an inappropriate method of determining the PCLs has led to inappropriate PCLs. Our concerns with the targets are:

- The funding ask for non-household demand reductions in our PR24 submission is calculated on the basis of delivery of 29 Ml/d of gross NHH demand reduction across AMP8, which when offset with 21 Ml/d of forecast baseline growth, results in a net decrease of 8 Ml/d across the AMP. To deliver a net decrease of 36 Ml/d with a baseline increase of 21 Ml/d would require 57 Ml/d of reduction activity. This has not been funded;
- Delivering a net decrease of 36 Ml/d across AMP8 is an infeasible target when accounting for underlying growth which is anticipated when applying demand forecasting methods aligned with economic forecasts.
- The resultant Performance Commitment level is well in excess of the national target for reduction in business demand by 2037/38.

[46]Ofwat, March 2023, Ofwat Consultation Response to Thames Water Draft Water Resources Management Plan Consultation, p.5 of 20. This consultation response is re-produced in Thames Water's Statement of Response, Appendix B (Response to Ofwat Representations), p.19, https://www.thameswater.co.uk/media-library/home/about-us/regulation/water-resources/wrmp24-draft/response-to-ofwat.pdf

ODI rates

Between the final PR24 methodology and the Draft Determination, Ofwat has amended the basis for calculating the Leakage, business demand and per capita consumption ODI rates. We agree that penalties and rewards associated with Leakage reduction should be higher than those for PCC and Business Demand, reflecting the degree to which achievement of the targets is within water company control. As set out in the ODI Rates section of this document, we propose methodological improvements which lower the ODI rate for business demand.

Our proposal to Ofwat

We propose that the PCL aligns to the forecast in our WRMP and as set out in this document. The factors above combine to result in changes to our proposed baseline and PC levels. Figure 32 and Figure 33 show the changes in our baseline and proposed PCLs for PCC. These targets are aligned with our WRMP24 and so should be adopted.

The ODI rate should be amended per the ODI rate methodology.

As Business Demand was considered a 'Priority 3' in Ofwat's customer research[47], the cap/collar should be set to 0.4% to be consistent with the ODI methodology.

Figure 32 - Baseline Levels:

		2017/18	2018/19	2019/20
October 2023 submission	AA	485.2	472.2	454.2
	3-yr rolling	-	-	470.5
Revised Plan (Aug 24)	AA	487.6	474.7	457.2
	3-yr rolling	-	-	473.2

[47] Ofwat, "PR24: Using collaborative customer research to set outcome delivery incentive rates", August 2023

Figure 33 - AMP8 Business Demand PCLs:

		2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
rdWRMP 24 (Aug 2023)	AA	423.8	425.7	429.2	428.0	426.6	425.1	423.2	421.4
	3-yr rolling			426.2	427.6	427.9	426.6	425.0	423.2
	3-yr % reduction from 2019-20			9.4%	9.1%	9.1%	9.3%	9.7%	10.1%
Draft Determination	AA	423.8	423.8	423.8	416.6	409.4	402.2	395.0	388.0
	3-yr rolling			423.8	421.4	416.6	409.4	402.2	395.1
	3-yr % reduction from 2019-20			9.9%	10.4%	11.5%	13.0%	14.5%	16.0%
Revised Plan (Aug 2024)	AA	427.3	423.1	425.6	423.1	420.6	417.8	414.7	411.7
	3-yr rolling			425.3	424	423.1	420.5	417.7	414.8
	3-yr % reduction from 2019-20			10.1%	10.4%	10.6%	11.1%	11.7%	12.3%

9. Internal Sewer Flooding

Key points

- We set out our evidence that a common PCL for Internal Sewer Flooding – going from the AMP7 2024/25 exit baseline of 1.34 to the sector median forecast for 2029/30 of 1.16 - will not be deliverable for Thames Water.
- We maintain that our forecast is ambitious and stretching. Our level and rate of performance improvement is higher than the sector average. We therefore are expecting an element of performance catch up over AMP8. However, we are not able to do so sufficiently quickly enough to avoid incurring ODI penalties as a result of being current performance being behind the proposed 2024/25 baseline.
- We have material concerns with the assumptions behind Ofwat's proposed PCL. Ofwat should set the PCL at a more appropriate level that Thames Water has a fair bet of being able to achieve. In particular:
- **2024/25 baseline:** Our forecast is ambitious. Ofwat should set Thames Water a higher baseline for which we have a 'fair bet' of being able to achieve.
- **2029/30 target:** We observe optimism bias in companies AMP8 forecasts, which if not delivered may mean the PCL gets set artificially low.
- A range of operational factors outside or with limited management control provide further evidence on why Thames Water has struggled to meet the AMP7 PCLs. This is particularly the case for Internal Sewer Flooding as it has a common target. The factors are: (1) weather conditions; (2) downside skew of performance; (3) urban rainfall; (4) customer behaviour; (5) pipe diameter; (6) property density; and (7) visibility of our network.
- We support stretching improvement during AMP8. We propose a glidepath to improve performance to the industry upper quartile – based on historic actuals since 2016/17 - to 1.45 by 2029/30. We consider this a very stretching target and would still anticipate underperformance against this target. Nevertheless, it remains more deliverable than Ofwat's proposed PCL.

Figure 34 - Internal Sewer Flooding

	Baseline (2024/25)	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals							
TW forecast - Draft Plan		1.81	1.71	1.65	1.60	1.55	
Ofwat PCL	1.34	1.31	1.29	1.24	1.20	1.16	
Ofwat ODI rate							£38.63m
Forecast ODI Penalty		(£19m)	(£16m)	(£16m)	(£15m)	(£15m)	**(£82m)**
TW Draft Determination Response							
TW update forecast		1.82	1.72	1.66	1.61	1.56	
TW Proposed PCL	1.82	1.74	1.67	1.60	1.53	1.45	
Rebased ODI rate							£36.01m
Forecast ODI Penalty		(£3m)	(£2m)	(£2m)	(£3m)	(£4m)	**(£14m)**

Context

Ofwat has set a common PC target based on a glidepath from 1.34 in 2024/25 to 1.16 incidents per 10,000 sewer connections in 2029/30.[48]

Our Business Plan aims to continue complying with our statutory duty to effectually drain our areas and deal with the contents of sewers in our network. It is very stretching but deliverable. We recognise the desire for common targets and have sought to engage constructively with the Draft Determination.

We propose that Ofwat sets alternative outcomes parameters. Our set of mitigations would recognise some of the unique challenges and circumstances we face. Our assssment of why our forecast is stretching

We maintain that our forecast is ambitious and stretching for the following reasons:

- Level of improvement: We are forecasting to improve performance from 1.85 incidents in 2024/25 to 1.56 in 2029/30. This improvement of 0.29 in incidents per 10k connections is the third highest total improvement in the sector. It is higher than that of total improvement in Ofwat's common target (0.18, from 1.34 to 1.16). Our rate of improvement of 16% is the fourth highest in the industry. It is higher than the rate of improvement of the median and upper quartile, at 12% and 14% respectively. It is also higher than the rate than rate of improvement set out in Ofwat's common PCL of 11%.[49]
- Comparison of our forecast to actuals: The forecast also compares favourably to actuals across the sector since 2016-17. Every year of our forecast is in the second quartile when compared to actual performance data across the sector. Our 2025-26 performance forecast of 1.82 is below the median (2.01). Our 2029-30 forecast of 1.56 is just outside the upper quartile (1.45).
- In percentile terms, our performance increases from 39th percentile in 2025-26 to 29th in 2029-30 when compared to actuals.
- AMP8 sector median and upper quartile forecast: We also note that the companies' median 2029-30 forecast of 1.17 is very close to the upper quartile forecast of 1.13. This means that the benefit companies obtain from Ofwat's change in approach to median company will have been significantly muted for this PC than other PCs.

We are forecasting for our performance to improve faster than the sector average. We therefore are expecting to catch-up. However, we are not able to do so sufficiently quickly enough to avoid incurring ODI penalties as a result of being behind the 2024/25 baseline.

We maintain that achieving performance improvements of this magnitude would not be commensurate with scale of ODI penalties we have estimated using our Draft Business Plan forecasts and Ofwat's Draft Determination PCL.

[48] *The exception is* Hafren Dyfrdwy *where the target was ser at 1.84 number of incidents to account their relatively smaller scale. Ofwat has not proposed to set a cap, collar or deadband.*
[49] We recognise our higher rate of improvement is applied that this is from a higher base.

Our concerns on the Performance Commitment Level

***2024/25 baseline:** Our forecast is ambitious. It represents a material improvement on where performance is today. Ofwat should set Thames Water a higher baseline for 2024/25 which we have a 'fair bet' of being able to achieve.*

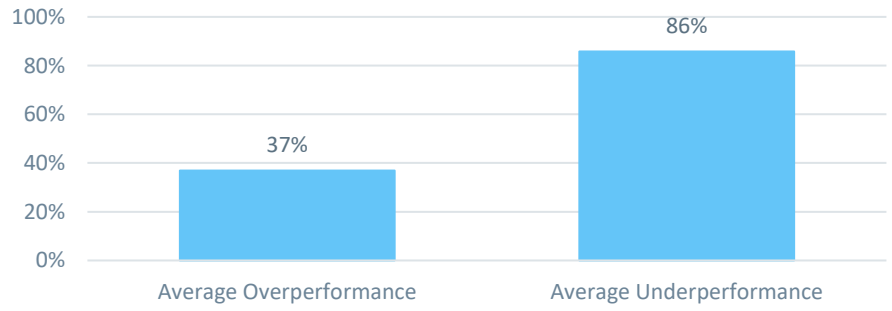
The PCL forecast Ofwat put in place for Internal Sewer Flooding in PR19 was very stretching. It was based on using an upper quartile of companies' business plans' forecasts. The targets put in place targets each year are that are common across all companies.

We now have four years of data on how feasible the performance improvements targets have been in practice. We maintain it is not deliverable for Thames Water the following reasons:

- Over AMP8 companies have only achieved the common performance targets a third of the time, with targets missed two thirds of the time.[50]
- The 2024/25 performance level of 1.34 or lower has only been achieved 19% of the time since 2016-17. It has been achieved by only five companies. This means that six companies have never achieved the target which Ofwat is planning to put in place from April 2025 onwards.
- Performance is improving across the sector. Improvements are being made. The median performance for each of the first four years of AMP7 is 1.96, 1.84, 1.65 and 1.67. This is an improvement of 0.29. It is faster than the rate required by the PCL over the same period of 0.24.[51]

We also note that when companies have outperformed the target, it is by relatively small amounts. By contrast when companies miss the target it is by higher amounts. This is shown in Figure 35 below.

Figure 35 - Industry absolute level of over/under performance



Thames Water's latest actual performance remains well-above the target level. In the last two years, we achieved our best ever performance, of 1.91 and 1.88 respectively. 1.88 is the 41st percentile in comparison to historic actuals across the sector. This is better than the median that has been achieved.

The PCL Ofwat proposed in the Draft Determination is wholly unrealistic. To avoid penalties, Thames Water needs to improve performance by 29% in a very short space of time. We do not believe we have a 'fair bet' of being able to achieve this. On top of this, we describe in the following section a number of factors outside that affect performance.

[50] See Ofwat 'PR24-DD-ODI-Rates-Performance-Range-Model-1.xlsx', tab 'c.Dif to PCL', rows 8 -18
[51] 2020/21 and 2023/24 PCLs of 1.68 and 1.44 respectively.

2029/30 PCL: We observe optimisim bias companies AMP8 forecasts, which if not delivered may mean the PCL is set too high.

Our analysis of company forecasts for AMP8 suggest there is optimism bias. This mirrors the optimism bias seen at PR19. We observe a significant increase in forecast performance for AMP8 (3% per annum) compared to the actual increase in performance for the last seven years (1.5% per annum).

Contrasting performance our 2029/30 forecast of 1.56 to actuals since 2016/17 would represent the 29th percentile forecasts performance for would place. By contrast, the same forecast in comparison to companies AMP8 forecast shown that this would fall to the 63rd percentile. We believe this demonstrates a significant degree of optimism bias in companies' performance forecast. We also note that two companies – Southern and Severn Trent – are forecasting performance 43% and 29% than they have ever achieved. If these very stretching forecasts are not delivered, it is very possible that Ofwat may set the PCL too high.

Operational factors outside or with limited management control that affect performance for sewer flooding and pollution incidents.

Joint evidence on sewer flooding and pollution incidents

The evidence described below focuses on Internal Sewer flooding. However, many of the factors we describe will equally impact on External Sewer Flooding and Pollution Incidents. We have consolidated much of our evidence into one section here, rather than replicate it across the other relevant parts of this document.

It has proven exceptionally challenging for Thames Water - and the industry more broadly - to reach the target levels set at PR19. A range of operational factors outside or with limited management control provide further evidence on why Thames Water has struggled to meet the AMP7 PCLs. This is particularly the case for External Sewer Flooding and Total Pollution Incidents that have a common target across the industry. These are: (1) weather conditions; (2) downside skew of performance; (3) urban rainfall; (4) customer behavior; (5) Pipe diameter; (6) property density; and (7) visibility of our network.

Together these factors together support our view that Ofwat's proposed 2024/25 baseline and 2029/30 AMP8 endpoint is overly stretching and not deliverable for Thames Water.

Weather conditions: Bad weather can cause our network to fail. When it does so it materially affects our performance.

The average of our five best years of performance since 2016/17 is 1.98. However, following the intense, localised storms in London in the summer of 2021 our 2021/22 Internal Sewer Flooding performance worsened to 3.46.

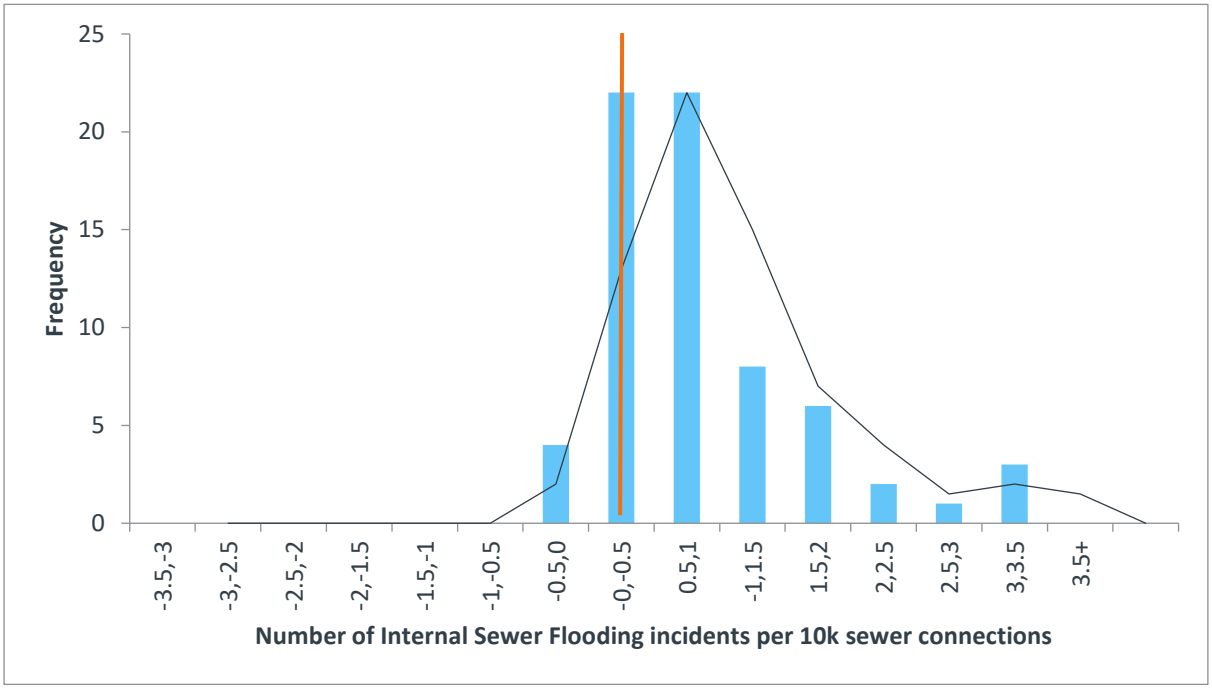
It is plausible that in AMP8 Thames Water could experience a storm similar to the ones in London in 2021. This will worsen performance. If we saw performance at levels seen in 2021/22 in 2025/26 – with Ofwat's proposed common PCL of 1.29 and an ODI rate of £36.01m – our ODI penalty could be around £75m. This is on top of all the cost we incur in order to put things right.

<u>Downside skew of performance</u>: Ofwat's own data demonstrates a significant downside skew in performance.

Performance improves during good weather conditions. However, it does not do so to the same extent as it negatively impacts performance.

The risk is therefore not symmetric. It has a large downside skew. This is shown in Figure 36. It sets out that the distribution of actual performance for all companies since 2016-17 does not follow a normal distribution.

Figure 36 - Frequency distribution of differences between actuals and target ISF



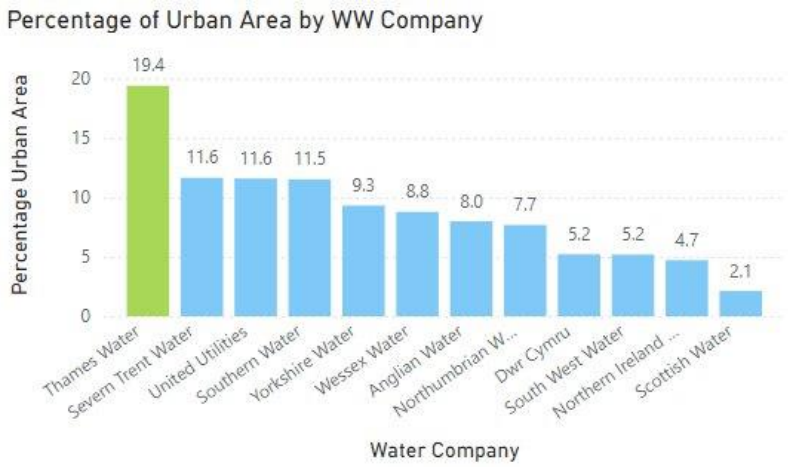
Source: Companies' Business Plan submissions

<u>Urban rainfall:</u> Our level of urban rainfall is twice the sector average. Ofwat has proposed to include urban rainfall in its base cost models.

We note that Ofwat is including urban rainfall in the base cost models for sewage collection. This is to account for the volume of inflows into drainage and sewerage networks. In the future this should help account for the additional cost of this external factor.

Thames Water has the highest percentage of urban rainfall out of any company in the sector. Figure 37 below shows that our rate of 19.4% is materially higher than all other companies. The second highest is Severn Trent and United Utilities, both with 11.6%. The sector average is 8.8%. On a weighted average basis, this rises to 9.5%. Nevertheless, Thames Water's level is over double the average for the sector.

Figure 37 - Percentage of Urban Area by company



It takes time for operational performance to improve in response to additional funding. Historically no such additional funding has been available, nor was the PCL adjusted. As a result, it is harder for Thames Water to hit the proposed targets in the earlier years of AMP8 than for other companies.

We maintain that the level of urban rainfall exemplifies the level of downside skew in our performance. Applying a common PCL for Internal Sewer Flooding to Thames Water fails to take this into account.

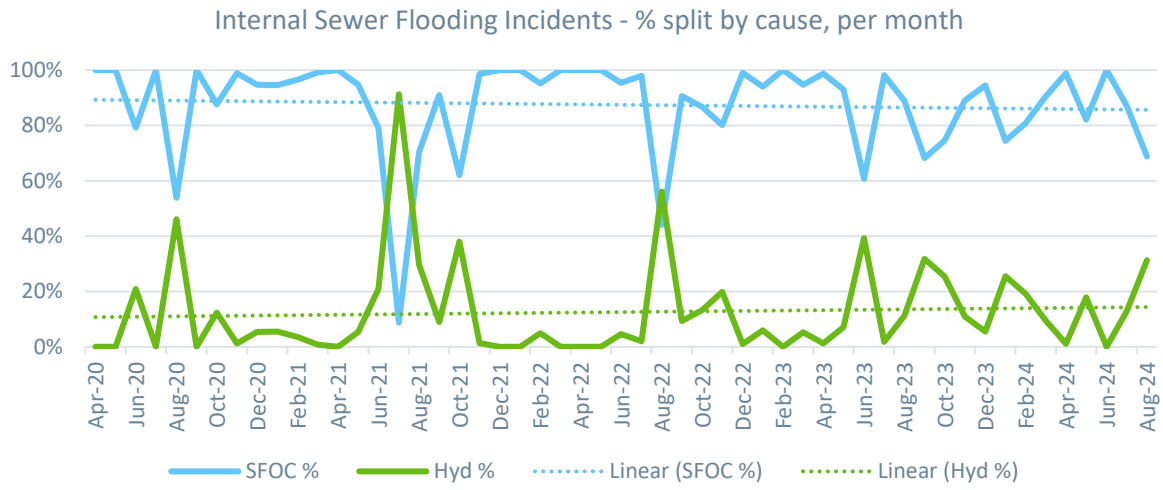
A bespoke PCL would be more appropriate.

Customer behaviour: Flushing products that should not be flushed.

A large proportion of sewer escapes which result in performance issues (namely Internal Sewer Flooding, External Sewer Flooding, Total Pollutions, and Serious Pollutions) are mainly caused by blockages. A key driver of blockages is customers flushing products they should not. In particular, rags (which includes wet wipes) and 'fats, oil and grease' (FOG). Companies seek to educate customers and take appropriate action where necessary to disincentivise misuse. However, we have a limited degree of control over customers behaviour.

Below we set out evidence which suggest sewer misuse is more prevalent in urban areas across our region than elsewhere. This implies that meeting a common target is harder for us than for most companies. Figure 38 below shows the proportion of blockages caused by hydraulic failure and sewer flooding other causes (SFOC). On average since the start of 2020, hydraulic failure has been responsible for around 10% of incidents, with SFOC around 90%.

Figure 38 - Proportion of Internal Sewer Flooding Incidents

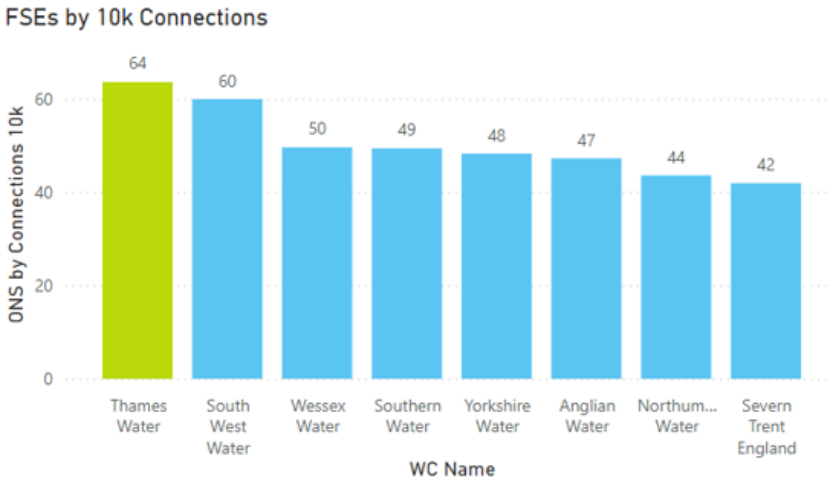


Source: Thames Water internal data. SFOC stands for Sewer Flooding Other Causes, which includes blockages, collapse, equipment and blowbacks.

We recognise that there are multiple reasons why blockages can occur. However, a large proportion of SFOC blockages are as a result of 'sewer abuse'. 40% are 'paper and rag', with 23% caused by FOG. These can occur at any point on our extensive network, which is over 110km of sewer length.

We also have a relatively higher proportion of food service establishments (FSE). Data from NOMIS ONS data was normalised per 10k connections and is shown in Figure 39 below. This shows that Thames Water has the highest number of food service establishments for any water company per number of sewer connections.

Figure 39 - FSEs by 10k connections per company[52]



We maintain that customer behaviour is therefore likely to be a key driver of the higher level of sewer abuse we face when compared to other companies. This affects the number of sewer flooding incidents in our network and the skew in distribution of our performance.

This problem is then compounded by the inherent scale and nature of our network.

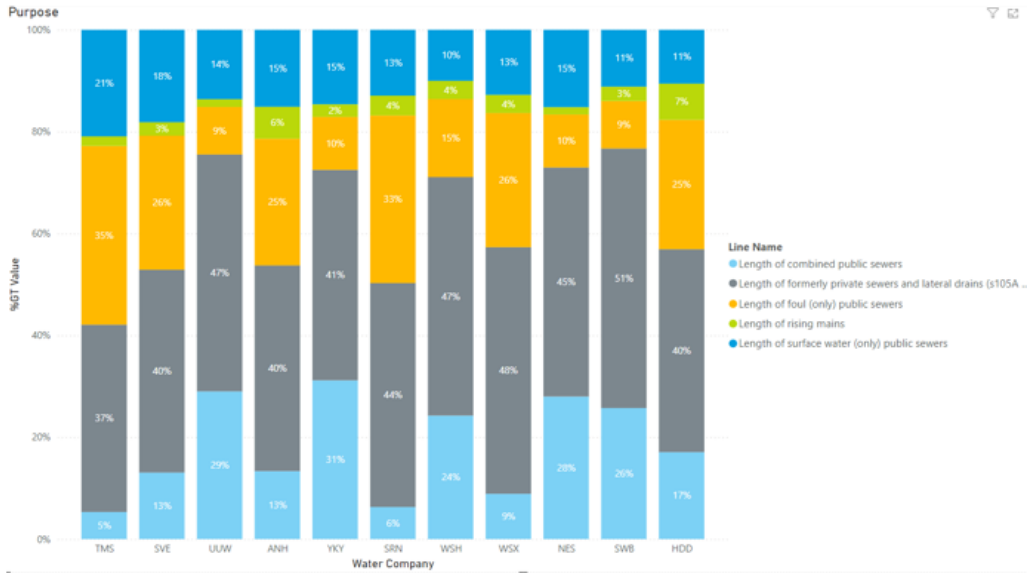
[52] Nomis (ONS); UK Business Counts - local units by industry and employment size band, 2023 dataset

Pipe diameter: Smaller diamiter assets are more prone to sewage blockage

Our operational challenge is further influenced by having a higher proportion of separate sewer systems for foul and surface water.

Separate sewer systems have a relatively smaller diameter in comparison to combined sewers. This means meaning that they are more likely to block and require more cleaning. A total of 95% of blockages in the Thames Water region occur on pipes less than 175mm diameter. Figure 40 below shows that Thames Water has the lowest proportion of combined public sewers in the industry.

Figure 40 - Sewer length profile by company



Source: Companies' APR data.

A higher proportion of separate sewers compared to combined sewers also reduces the ability of rainfall to flush the sewers of potential blockage material. The increasing challenges around non-flushables such as wet wipes have increased. What was originally designed as an adequately separate self-cleansing sewer in terms of foul flows, is not sufficient today for non-flushable items.

Customer characteristics: Higher property density means more properties are at risk when there is a sewer escape.

The density of the population in the area we operate is also substantially higher than the rest of the industry. Although Ofwat added a density driver to account for this in their sewage collection models, this does not fully capture the further challenges we face. We note the CMA's proposed use of a quadratic term in the models - which would better account for this challenge - has not been taken forward by Ofwat for PR24.[53]

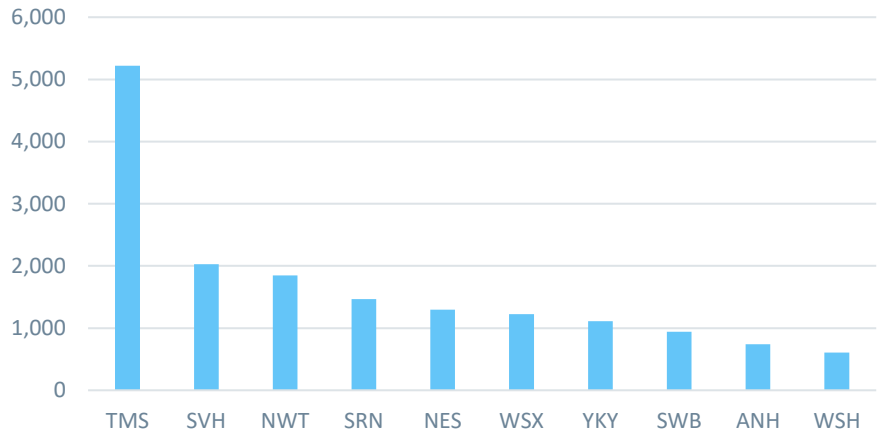
Property density in urban areas is higher, and London has higher density than elsewhere[54]. Logically, this means more properties are at risk when there is a sewer escape. Thames Water

[53] Source: Competition & Markets Authority; Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited price determinations; March 2021; Paragraph 26.

[54] For example, see Dwelling Stock estimates in England: 2021 from the Department of Levelling Up, Housing & Communities, p10-11.

has the largest percentage of urban area in the industry, at 19.4%. The next company has 11.6%.[55] Approximately 30% of London surface area is 'manmade' (e.g., concrete) compared to only 8% outside of London. This means that if flows escape the system, they can travel further more easily. On average, a London manhole serves 82 properties (within 100m buffer of the manhole), while outside of London a manhole only serves 59 properties per manhole. 95% of manholes in London are in an urban area compared to 88% in TVHC.

Figure 41 - Density by company base on middle super output areas (MSOA)



Source: Ofwat's Draft Determination Models – Bases costs residential retail model 1. Period 2026-17 to 2022-23

Case Study: Maida Vale - Protecting 153 properties from internal sewer flooding

A scheme was delivered in Maida Vale in north west London during AMP5 which protected 153 properties from internal flooding to a 1 on 30-year return period, equating to a 3% chance of occurring in any one year.

In July 2021 the area experienced an event with return periods up to 1 in 275 years (a 0.4% chance) of occurring in any one year - which resulted in widespread flooding, including to properties previously protected by the scheme.

Protecting properties in London to extreme rainfall return periods would take hundreds of billion pounds due to population density and complex scheme costs. Current funding levels do not allow for this level of investment. Our Drainage and Wastewater Management Plan (DWMP) proposes 1 in 50-year rainfall return period protection by 2050 and therefore incidents outside of this range are outside of company control.

Ofwat does not produce a specific allowance for reducing flood risk. We are therefore not able to be precise on the funding provided. Nevertheless, our analysis of implicit allowances suggests that funding across AMP8 is [in the region of £130m to £180m/ less than £200m?].

Ofwat's Enhancements Cost Aggregator Model. "PR24 BP Other enhancement - Reduce flooding risk for properties; enhancement totex - Total inc. accelerated & transition costs".

Visibility of our network

Over AMP8 we will significantly improve visibility of our network by investing around £24m in expanding the digitisation of our network through sewer depth monitors. We are increasing the

[55] Based upon UKCEH 2023 landcover map

number we have by 18k to 50.8k. This is a significant increase. However, it still only equates to one every 2km. We will not be able to monitor every sewer.

ODI rate

The ODI rate in Ofwat's Draft Determination is 44% higher than the indicative ODI rate published in August 2023. In the ODI Rates section we suggest a number of amendments to Ofwat's performance range and ODI rate calculations. Namely, including 2023-24 performance data and adjusting to an industry-wide median unit incident rate. Incorporating these changes will reduce the ODI rate to £36.01m

Our proposal to Ofwat

- We propose the following changes to the Draft Determination, which taken together we believe would represent a fair bet:
- A baseline of 1.82 for 2024/25. This is calculated as the average of the five best out of the last eight last years of median performance data, from 2016/17 to 2023/24. It accounts for the real-world evidence observed across the industry since PR19, while at the same time limiting the impact of downside performance. It provides a degree of allowance for the factors outside or with limited management control set out above. It also avoids a cliff-edge in 2025-26.
- A target of 1.45 for 2029/30. This is calculated as the average of five best out of the last eight years of upper quartile performance data. This is stretching. It is below our forecast for 2029-30 of 1.56. Our proposed 20% improvement in performance target from the 2024/25 baseline (1.74) to 2029/30 (1.45) is higher than that 13% proposed by Ofwat's common PCL.
- In line with our proposals set out in the Caps and Collars section of this document, we propose a cap and collar of 0.5% for this PC. Ofwat should set the ODI rate at £36.01m.

Figure 42 - Our Business Plans and our alternative approach for Ofwat's FD

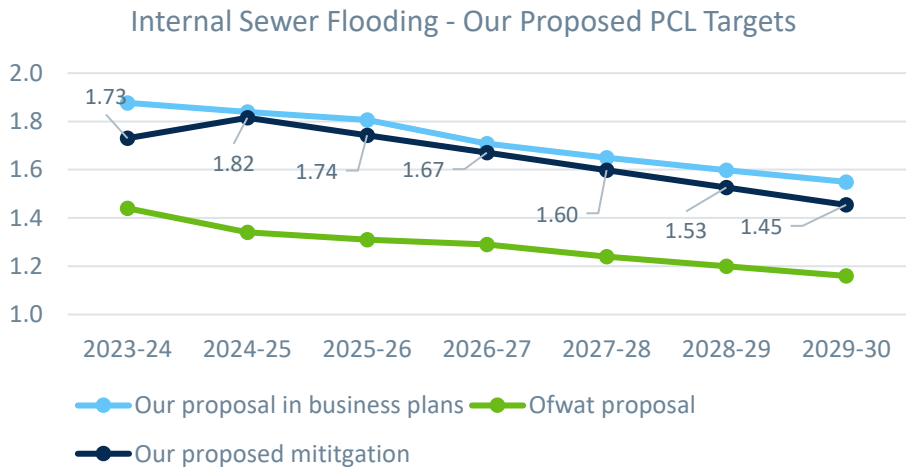


Figure 43 - Comparison between Ofwat's and our proposals for ISF PCL Targets

Proposed ISF Targets	2025/26	2026/27	2027/28	2028/29	2029/30
Our Business Plan submission	1.81	1.71	1.65	1.60	1.55
Ofwat proposal	1.31	1.29	1.24	1.20	1.16
Our proposed mitigation	**1.74**	**1.67**	**1.60**	**1.53**	**1.45**

10. External Sewer Flooding

Key points

- Restatement of our External Sewer flooding data is necessary. The use of our previously submitted incorrected data will set an undeliverable target resulting in substantial penalties.
- We maintain that our forecast is ambitious and stretching. The level and rate of our performance improvement is higher than the sector average. We therefore are expecting an element of performance catch up over AMP8.
- We propose to set the 2024/25 baseline using the revised number of incidents from 2016-17 to 2023-24. We excluded the two worst years and the best year to give an average performance of 23.13.
- Ofwat should apply the same approach to set Thames Water's PCL as it has applied to other companies. This means a glidepath from the 2024/25 baseline towards the 2032/33 convergence point of 13.49. This leads to a 2029/30 target of 17.10.
- This is a new PC for Thames Water. Ofwat should introduce a collar of 0.5%.
- We recognise that Ofwat has concerns on the quality of our data. We propose Ofwat uses either a cap or sets the outperformance payments at zero.
- Ofwat has only included AMP7 data when assessing the performance range that supports the ODI rate. We maintain that AMP6 data is also relevant for the assessment of the Performance Commitment. This reduces the ODI rate to £5.35m.

Figure 44 - AMP8 proposals – External Sewer Flooding

	Baseline (2024/25)	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals							
TW forecast - Draft Plan		26.21	25.37	24.82	24.31	23.85	
Ofwat PCL		9.16	9.16	9.16	9.16	9.16	
Ofwat ODI rate							£14.35m
Forecast ODI Penalty		(£245m)	(£233m)	(£225m)	(£217m)	(£211m)	**(£1130m)**
TW Draft Determination Response							
TW update forecast		22.08	21.30	20.81	20.35	19.93	
TW Proposed PCL	23.13	21.92	20.72	19.51	18.31	17.10	
Rebased ODI rate							£5.35m
Forecast ODI Penalty		(£1m)	(£3m)	(£7m)	(£11m)	(£15m)	**(£37m)**

Numbers in blue cells represent Thames Water's proposed mitigations

Context

Nine out of 11 across the sector have External Sewer Flooding as a performance commitment in AMP7. However, it will be a new performance commitment for Thames Water in AMP8.

Ofwat's proposed PCL for each company has been based on their historical performance. As Thames Water did not have a PCL in PR19, Ofwat set the target as the average performance over the last five years. This was based on our original data. Ofwat has set the PCL at 9.16 incidents per 10,000 sewer connections with no caps, collar or deadbands.

Ofwat has proposed a convergence point for the whole sector of 13.49 by 2032/33. If a company is proposing a convergence point below 13.49, Ofwat uses the company proposed PC as the target.

We are concerned about the PCL and ODI rate for the following reasons:

- The use of our previously submitted incorrected data would set an undeliverable PCL and result in substantial penalties.
- The absence of a cap and a collar does not consider the risk for a new PC for Thames Water. It contradicts Ofwat's stated policy for PR24 make targeted use of caps and collars on performance commitments "that are new or bespoke and therefore more uncertain";[56]
- Rebasing Ofwat's ODI rate to include 2023-24 performance data reduces the ODI rate from £14.35m to £10.13m. However, we note that Ofwat has only included AMP7 data when assessing the performance range. We maintain that AMP6 data is also relevant for the assessment of the performance range for this performance commitment. It should also be included. Including AMP6 data reduces the ODI rate to £5.35m.

We recognise Ofwat's proposal to reach a common industry target by in 2032/33. We maintain that it would be more appropriate when Ofwat is setting the PCL to adopt the same approach it has adopted for other companies. Namely, a linear glidepath from our forecast 2024/25 performance baseline to the 2032/33 convergence point.

Recognising the additional uncertainty due to the historic data restatement, we are prepared to forego any ODI reward opportunity for AMP8 for External Sewer Flooding. We therefore propose a cap of 0.0% regulatory equity or a zero outperformance ODI rate.

We have retained the performance improvement in our October 2023 Draft Business Plan in terms of the reduction in the number of incidents. We may deliver further improvements in performance beyond our forecast should the asset health improvement gated allowance workstreams target improvements in External Sewer Flooding. These would be confirmed at Gate 3 of the gated allowance process.

Historic data: Restatement of our External Sewer flooding data is necessary.

External independence assurance is an expensive resource. We use a risk assessment framework to prioritise which measures require assurance in the current AMP. External Sewer Flooding is neither a common Performance Commitment in AMP7, nor it is a measure that we have historically reported to Ofwat. It did not meet our criteria for external assurance.

In preparation for it becoming a performance commitment for Thames Water in AMP8 we conducted external assurance. Thames Water considers it has under-reported historically on the External Sewer Flooding measure.

We have re-assessed our data and have a designated External Sewer Reporting team. Our findings suggest we under-reported our number of incidents by around 206% in 2023. This was based on random sample of 9,844 from 127,191 jobs that could contain external flooding. For

[56] Ofwat; PR24 Final Methodology - Appendix 8 Outcome delivery incentives; December 2022; Page 57.

our statistical sampling, we worked with 10% of the population of incidents to achieve a confidence level of 95% (2.5% margin of error). Our internal assurance reviewed that Thames Water's historical performance had been under-reported 206%.

These findings were mirrored in a separate study by Baringa. Further assurance recently undertaken by PwC as part of our 2023/24 assurance review confirms that our method to reinstate data is credible. We have shared these reports with Ofwat.

At a high-level, our restated data can be split into two categories:

- Last financial year we improved our reporting processes for External Sewer Flooding. This has had extensive external assurance as part of our APR audit. We are therefore confident our 2023-24 actual performance of 21.45 is robust;
- Our historic data from 2016-17 to 2022-23 is an inferred estimate. It is calculated by applying an uplift factor of 206% to our previously incorrect reported numbers. This uplift factor has been subject to engineering and audit assurance. This is a good, robust estimate of our historic performance but we recognise it has less certainty than the 2023/24 value.

Our assssment of why our forecast is stretching

We believe our performance forecast is stretching for the following reasons:

- **Level of improvement:** We are forecasting to improve performance from 23.13 incidents in 2024/25 to 19.93 in 2029/30. This is an improvement of 3.20 in incidents per 10,000k connections, equating to 14%. This is the fourth highest level of total improvement in the sector. Over the same period the industry median improves at a lower rate - by 1.95 or 11%.
- **Comparison of our forecast to actuals:** The forecast is around the industry median, when compared to actuals across the sector since 2016-17. Every year of our forecast is in the third quartile. Our 2025/26 performance forecast (22.08) is around the 60th percentile. This improves to in line with the historic sector median (19.70) in 2029/30.

We are forecasting for our performance to improve faster than the sector average. We therefore are expecting some level of catch-up. We maintain that achieving performance improvements of this magnitude would not be commensurate with receiving large ODI penalties.

Our concerns on the Performance Commitment Level

2024/25 baseline: Ofwat should use our restated data to set the baseline for our PCL.

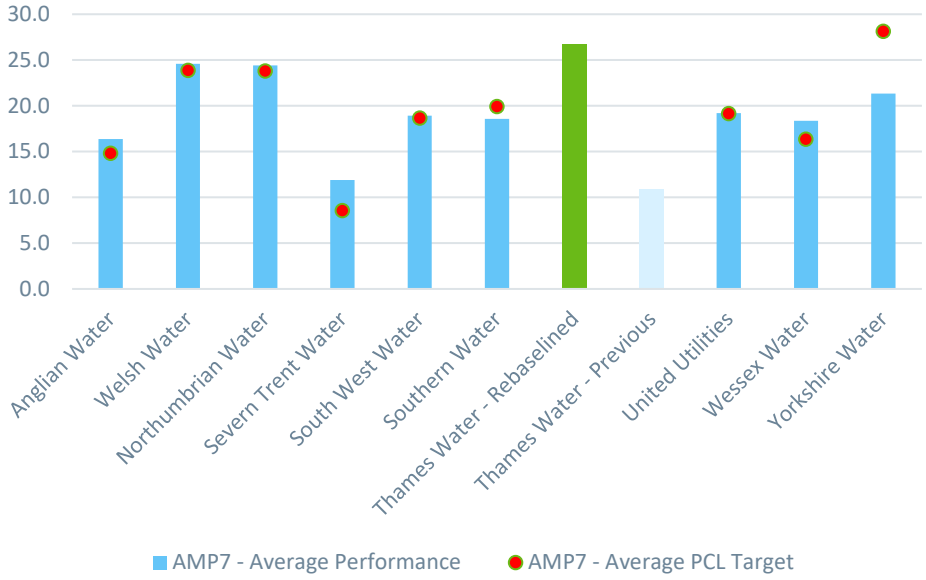
Ofwat setting the target for each year of AMP8 on our incorrect historic data would unfairly penalise Thames Water. Using our uncorrected data to set the PCL would result in us earning a penalty in excess of £1bn, even if we materially improve performance over the course of AMP8.

We have explained to Ofwat the reasons why we have needed to restate our data. We have also shared external reports covering different aspects of the audit and assurance undertaken on our restated data. We recently responded to a query on this topic.[57]

Figure 45 below shows the impact of using our restated data. Removing our incorrect performance data shows only Severn Trent has a target level below 10.

[57] TMSA-APR-CA001: Response submitted to Ofwat on 1st August to query dated on 25th July.

Figure 45 - Average ESF performance and PCL targets in AMP7



Source: Industry APR data

Ofwat's Draft Determination proposed that where companies did not have a PR19 PCL, their baseline is aligned with their 5-year historical average. On average our performance between 2018-19 to 2022-23 was 26.91.

We propose that Ofwat should set our baseline using the revised number of incidents from 2016-17 to 2023-24. We have excluded the two worst years and the best year of performance. This gives an average of 14,458 incidents, equating to a normalised performance of 23.13. This baseline is lower than if Ofwat's approach in the Draft Determination was adopted.

There are operational factors outside or with limited our management control that affect our performance which Ofwat should take into account when setting our PCL.

We set out in the Internal Sewer Flooding section a number of key external factors which impact our performance. These factors all also apply to External Sewer Flooding.

We intend to significantly improve our performance. However, delivering immediate benefits to the levels outlined in the Draft Determination in early AMP8 will not be achievable. As an infrastructure company with physical assets and a wide asset base, interventions need to be mobilised and be allowed to mature to see benefit. For example, ensuring better visibility of our vast network through Sewer Depth Monitor Coverage is an effective measure to proactively manage flooding risk However, industry availability of these units is dependent on manufacture rates and parts availability. We also need to adapt our planning and operational processes. It takes time to implement and turn into results.

Caps and collars: This is a new PC for Thames Water. Ofwat should introduce a collar of 0.5%. We also propose to have no outperformance payments, which is tantamount to setting a cap at 0%.

Ofwat's Draft Determination set caps and collars for new PCs in line with its Final Methodology policy.[58] As External Sewer Flooding is a PC for the majority of companies in AMP7, Ofwat determined that caps and collars are not suitable for this PC. However, since this will be a new financial PC for Thames Water in AMP8, we maintain that a cap and collar is appropriate and would be in line with Ofwat's policy.

We set out below that we also propose to have no outperformance payments in AMP8 for this PC. This is tantamount to setting cap at 0%.

The ODI rate

Ofwat should include AMP6 data in its perforrmance range estimation.

The ODI rate in Ofwat's Draft Determination is 20% higher than the indicative ODI rate published in August 2023. In the ODI Rates section we suggest a number of amendments to Ofwat's performance range and ODI rate calculations. Namely, including 2023-24 performance data and adjusting to an industry-wide median unit incident rate. Incorporating these changes will reduce the ODI rate to £10.13m.

We also note that Ofwat has only included AMP7 data when assessing the performance range for this PC.[59] Other PCs that have used the same approach have included both AMP6 and AMP7 data when available. We recognise that there were differences in definitions. Nevertheless, we maintain that AMP6 data is also relevant for the assessment of the performance range for this performance commitment. It should therefore also be included.

Incorporating all these changes reduces the ODI rate to £5.35m.

Set outperformance payments at zero

We recognise that Ofwat has concerns on the quality of our data. We also understand the potential perceived risk that we could try and 'game' the target level and earn outperformance rewards. We are very clear that this is not the case but recognise the perception risk.

To remove any doubt, we propose to set the outperformance rate to zero for this ODI for AMP8 only, whilst we establish a full historical dataset of actuals. This means there is no way for us to earn any outperformance.

Our proposal to Ofwat

- We propose the following changes to the Draft Determination, which taken together we believe would represent a fair bet:
- Ofwat sets the baseline for 2024/25 at 23.13. This is based on our restated data.
- Ofwat applies the same approach to Thames Water as it has applied to other companies when setting the PCL. This means a glidepath from the 2024/25 baseline towards the

[58] Ofwat; PR24 Final Methodology - Appendix 8 Outcome delivery incentives; December 2022; Page 57.
[59] Source : https://www.ofwat.gov.uk/wp-content/uploads/2024/07/PR24-Draft Determination-ODI-Rates-Performance-Range-Model-1.xlsx

2032/33 convergence point of 13.49. This represents an improvement of 42%, equivalent to improving performance by over 1.2 incidents per 10,000 connections each year. This leads to a 2029/30 target of 17.10.

- Ofwat introduces a collar at most at 0.5% of RORE. As External Sewer Flooding is a new PC for Thames Water, this is a simple application of Ofwat's stated methodology.
- Ofwat sets the outperformance ODI rate at zero for this PC for AMP8 only, whilst we establish a full historical dataset of actuals.
- Ofwat sets the underperformance ODI rate at £5.35m. This rate reflects the inclusion of AMP6 and AMP7 data, on top of our adjustments we have made for 2023-24 performance and an industry-wide median unit incident rate.

Figure 46 - Our proposed PCL Targets for ESF

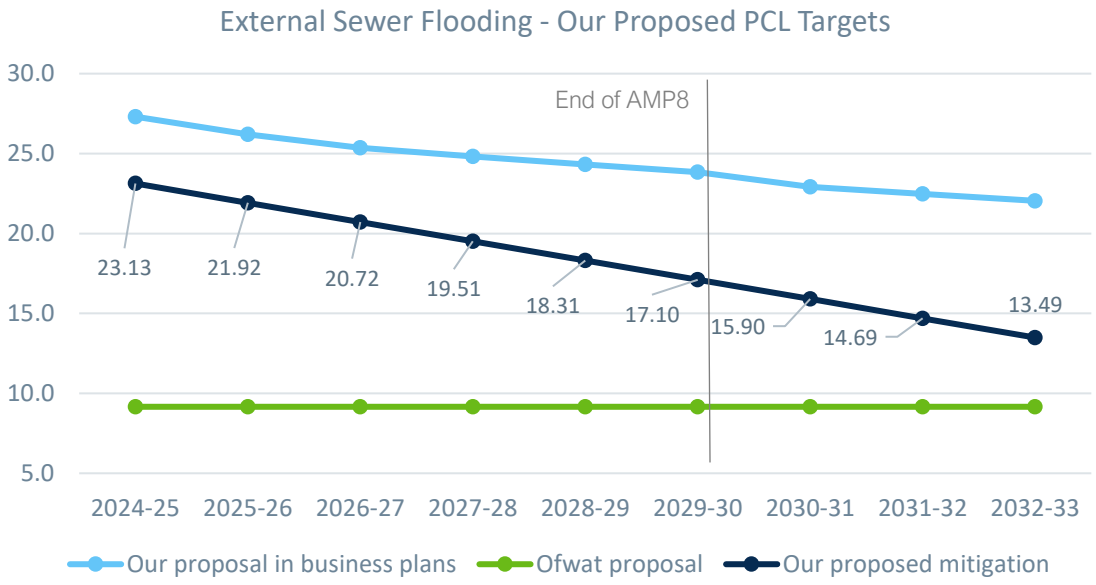


Figure 47 - Comparison between Ofwat's and our proposals for ESF PCL Targets

Proposed ESF Targets	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Our Business Plan submission	27.31	26.21	25.37	24.82	24.31	23.85	22.92	22.48	22.04
Ofwat proposal	9.16	9.16	9.16	9.16	9.16	9.16	9.16	9.16	9.16
Our revised proposal	23.13	21.92	20.72	19.51	18.31	17.10	15.90	14.69	13.49

11. Total Pollution Incidents

Key points

- We remain committed to our Business Plan forecasts. It shows performance improvement of over 30% over AMP8.
- We maintain that our forecast is ambitious and stretching. The level and rate of our performance improvement is higher than the sector average. We therefore are expecting an element of performance catch up over AMP8.
- WISER requires "at least a 30% reduction of all pollution incidents (category 1 to 3) by 2030 on current 2025 targets." However, it also recognises that "There may be some variation on our expectation depending on company performance during the current asset management plan period (2020 to 2025)."
- The common PCLs Ofwat set in PR19 has proved to be very challenging as AMP7 has progressed. Using it as the baseline for AMP8 - particularly when coupled with a 30% improvement rate - will mean the target is not deliverable.
- We have material concerns with Ofwat's proposal to set a common 2024/25 baseline across the sector at the AMP7 PCL of 19.50. This baseline - particularly when coupled with a 30% improvement rate - will mean the target is not deliverable for Thames Water.
- We propose Ofwat sets the 2024/25 baseline for Thames Water at the historic industry median. Applying a 30% improvement leads to a 2029/30 PCL of 20.75.
- We propose a collar of 0.5% to mitigate large downside financial exposure whilst still maintaining incentives to improve.

Figure 48 - AMP8 proposals – Total Pollution Incidents

	Baseline (2024/25)	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals							
TW forecast - Draft Plan	32.94	31.66	29.54	27.53	25.60	23.32	
Ofwat PCL		18.33	17.16	15.99	14.82	13.65	
Ofwat ODI rate							£3.99m
Forecast ODI Penalty		(£53m)	(£49m)	(£46m)	(£43m)	(£39m)	**(£230m)**
TW Draft Determination Response							
TW Proposed PCL	29.64	27.86	26.08	24.30	22.52	20.75	
Rebased ODI rate							£2.58m
Forecast ODI Penalty		(£10m)	(£9m)	(£8m)	(£8m)	(£7m)	**(£42m)**

Numbers in blue cells represent Thames Water's proposed mitigations

Context

Ofwat has set a common PC target for all WaSCs based on a glidepath from 18.33 in year 1 of AMP8 to 13.65 incidents per 10,000 km sewer length in year 5. [60]

The 13.65 target in 2029/30 is based on a 30% reduction from the target set for the end of AMP7 (2024/25) common PCL of 19.50. It is designed to be consistent with the Environment Agency's position in the Water Industry Strategic Environmental Requirements (WISER). Ofwat has proposed to not set caps, collars or deadbands.

We are concerned about the PC for the following reasons:

- The required 30% improvement performance places the industry in a challenging position, coupled with a common 2024/25 baseline across the sector at the end of AMP7 PCL, which appears unrealistic for most WaSCs to achieve. Additionally, the proposed PCL does not reflect the unique operational factors outside our management control that affect our performance.
- The ODI rate needs to reflect updated 2023/24 data and an industry-wide median unit rate for WaSCs to represent a more accurate and proportionate ODI rate.
- A cap and collar are necessary to provide appropriate financial protections.

Our assssment of why our forecast is stretching

We maintain our performance forecast is stretching for the following reasons:

- **Level of improvement:** We are forecasting to improve performance from 32.94 incidents in 2024/25 to 23.32 in 2029/30. This is an improvement of 11.73, equating to 33%. This is the second highest level of total improvement in the sector. Over the same period the industry median improves by 10.02.
- **Comparison of our forecast to actuals:** When compared to actuals across the sector since 2016-17, our forecast improves from around the industry median in 2024/25 to just inside the upper quartile in 2029/30.

We are forecasting for our performance to improve faster than the sector average. We therefore are expecting some level of catch-up. We maintain that achieving performance improvements of this magnitude would not be commensurate with receiving large ODI penalties.

Our concerns around the Performance Commitment target level

WISER requires companies to reduce pollution incidents by 30% over AMP8. However, it recognises that some company variation may be required.

The Water Industry Strategic Environmental Requirements (WISER) sets out in the expected performance and compliance section that:

- "at least a 30% reduction of all pollution incidents (category 1 to 3) by 2030 on current 2025 targets. There may be some variation on our expectation depending on company performance during the current asset management plan period (2020 to 2025)."

[60] Excluding Draft Determination

As set out above, our forecast shows performance improvement of over 30% across AMP8. However, it also recognises that targets may need to vary from this to reflect actual performance in AMP7.

2024/25 Baseline: We have material concerns with Ofwat's proposal to set a common 2024/25 baseline across the sector at the end of AMP7 PCL. Using it as the baseline for AMP8 - particulalty when coupled with a 30% improvement rate - will mean the target is not deliverable.

At PR19 Draft Determinations, Thames Water and other companies raised concerns with the level of stretch Ofwat placed on pollution incidents. Thames Water accepted the determination while recognising that pollution incidents as very challenging to deliver.

We looked to innovative solutions – notably sewer depth monitors – to improve performance. However, these have not facilitated the level of performance improvements required for Thames Water to achieve the PR19 PCLs and avoid incurring penalties.

Across the sector so far in AMP7, half of WaSCs incurred penalties in the first three years and all companies incurred a penalty in the 2023/24 as targets continue to get more stretching. Company forecasts for AMP8 are very ambitious, with the sector median expected to improve by 39% between 2024-25 and 2029-30. However, even with this level of improvement, only two companies are forecast to avoid penalties on the first three years of AMP8.

We do not think it is appropriate that we incur large penalties throughout AMP8 as a result of targets that are not deliverable and go well beyond what much of the industry has been able to achieve. Improving performance to 18.33 in 2025/26 would require a reduction of 46% on our 2024/25 forecast performance. This level of year-on-year improvement has only been achieved once, by Northumbrian Water and twice by Hafren Dyfrdwy.

We maintain that the 2024/25 baseline proposed by Ofwat does not represent a fair bet. The PR19 targets have been very challenging to deliver. Continuing to base the PR24 targets on them is likely to be overstretching again.

We maintain that setting a more deliverable target would be commensurate with requirements set out in WISER for Total Pollution Incidents.

There are operational factors outside our or with limited management control that affect our performance which Ofwat should also take into account when setting our PCL.

We set out in the Internal Sewer Flooding section a number of key external factors which impact our performance. These factors all also apply to Total Pollution Incidents.

As outlined in the External Sewer Flooding section of this document, Thames Water experiences significant operational challenges due to the scale and inherent characteristics of our network. These challenges also impact our ability to manage the risk of pollution incidents.

Approximately 70% of Total Pollution Incidents occur on the network, as opposed to at Sewage Treatment Works or other operational sites. 60% of these are as a result of blockages. Pollution management on our network especially poses a significant challenge due to the length of our network making it difficult to monitor.

We will be significantly increasing our digital network coverage. By the end of AMP8 we will have 50,800 monitors in our network, one of the largest programmes in the industry. Despite this investment, we will still have coverage on less than 5% of all the manholes on our network. This means that we still have a large number of points where sewage can escape undetected

and cause a pollution incident. It is not realistic for us to deliver, or for our customers to fund, monitoring for the remaining 95% of manholes in AMP8.

The lack of consistent performance among companies makes the proposed target unsuitable to incentivise performance improvements.

As part of understanding pollution performance for our Turnaround Plan, have assessed that we expect an additional 131 Category 3 incidents in AMP8 from stricter application of EA guidance.[61] We have already seen the number of CAT3s increase over time and the number of CAT4s reduce. This will make our already stretching targets significantly more challenging to achieve. In other words, setting the AMP8 baseline on historical PCLs is inappropriate because the definitions have become more challenging. If we had this new guidance at the time of Ofwat developing PR19, the PCL would likely have been set at a higher level.

We also note perceived regional differences in EA incident classification means that performance comparison between companies may not be consistent in practice. If industry level targets and penalties are set on relative position to others, there needs to be confidence that the guidance on pollution classification is applied consistently nationally. We would welcome a review of the 16_02 guidance and its application to ensure that it provides sufficient clarity to WASC's and EA officers on how categorisation should be determined. In particular:

- The minimum standards that should apply to WASC's in obtaining evidence to substantiate impact (sample locations and time periods).
- Clearer guidance on how the EA classify incidents in circumstances where information is not provided. For example, due to access constraints.
- Clearer guidance on allowable exceptions.

Delivering performance across AMP8 to the level Ofwat proposed in the PCLs will not be achievable. We are delivering new interventions that will provide more efficient and sustainable benefits to customers to enable us to improve our performance, such as our Virtual Blockage Alarms. This innovative new process will take time to mature and will take time to contribute to improving our performance.

The absence of a cap and collar also means that taking new innovative approaches carries a disproportionate risk to the company compared to more traditional, less efficient approaches.

Our concerns with the ODI rate.

The ODI rate in Ofwat's Draft Determination is 66% higher than the indicative ODI rate published in August 2023. In the ODI Rates section we suggest a number of amendments to Ofwat's performance range and ODI rate calculations. Namely, including 2023-24 performance data and adjusting to an industry-wide median unit incident rate. Incorporating these changes will reduce the ODI rate to £2.58m.

Our proposal to Ofwat

We propose the following changes to the Draft Determination, which taken together we believe would represent a fair bet:

[61] This relates to stricter application of CAT3 and CAT4 classification only and not the potential 16_02 guidance update to classify dray day spills and Dry Weather flow failures as pollution incidents.

- We recognise the need for this PCL to comply with WISER requirement to reduce the number of pollution incidents by 30% by 2029/30.
- We maintain that our Business Plan forecast is ambitious and stretching but deliverable.
- Ofwat should set the 2024/25 baseline for Thames Water at the historic industry median between 2016/17 and 2023/24. This gives a value of 29.64. We maintain that this would be in line with WISER as it recognises that some company variation may be required.
- The PCL should apply a liner glidepath to a 30% improvement in 2029/30 PCL of 20.75.

Figure 49 - Our proposed PCL Targets - Total Pollution Incidents

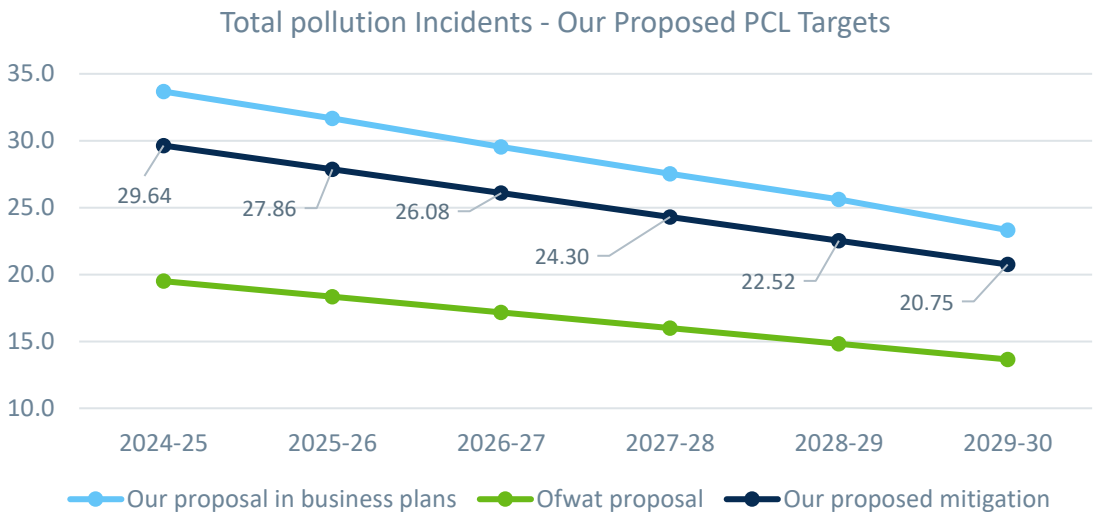


Figure 50 - Comparison between Ofwat's and our proposals for TPI PCL Targets

Proposed Total Pollution Incidents Targets	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Our Business Plan submission	33.68	31.66	29.54	27.53	25.60	23.32
Ofwat proposal	19.50	18.33	17.16	15.99	14.82	13.65
Our proposed mitigation	29.64	27.86	26.08	24.30	22.52	20.75

In line with our proposals set out in the Caps and Collars section of this document, we propose a cap and collar of 0.5% for this PC. Ofwat should set the ODI rate at £2.58m.

12. Serious Pollution Incidents

Key points

- We have reforecast our Business Plan based on current operational performance and classification of serious pollutions by the Environment Agency. Based on recent history in 2022, 2023 and 2024 to date, we are forecasting 16 serious pollutions per year from 2025.
- We have removed the benefits that we attached to the asset health deficit enhancement case in October 2023. Should the asset health improvement gated allowance workstreams target improvements in performance, these will be confirmed at Gate 3 of the gated allowance process.
- We recognise the desire for a zero target on serious pollutions. The zero target Ofwat has used to set the PCL does not reflect the best available evidence for the industry overall and it is unrealistic for companies with the scale size of Thames Water. If Ofwat is going to intervene, we propose setting a deadband using the best evidence available, resulting in 5 incidents. The proposed deadband is based on the average of the upper quartile industry performance for the period 2016/17 to 2023/24.
- We also propose that events caused by third parties on our un-telemetered assets are excluded from the definition. This is so we are not penalised for events demonstrably outside our management control.
- We propose a collar of 0.5%. We have legal obligations as well as reputational incentives to improve performance, in the event we perform very poorly. Double jeopardy is both punitive and unnecessary.

Figure 51 - AMP8 proposals – Serious Pollution Incidents

	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals						
TW forecast - Draft Plan	7	6	5	5	4	
Ofwat PCL	0	0	0	0	0	
Ofwat ODI rate						£1.75m
Forecast ODI Penalty	(£12m)	(£10m)	(£9m)	(£9m)	(£7m)	**(£47m)**
TW Draft Determination Response						
TW update forecast	16	16	16	16	16	
TW Proposed Deadband	5	5	5	5	5	
Rebased ODI rate						£1.68m
Forecast ODI Penalty	(£19m)	(£19m)	(£19m)	(£19m)	(£19m)	**(£93m)**

Numbers in blue cells represent Thames Water's proposed mitigations

Context

Ofwat has proposed a common PC target of zero incidents. It has proposed to set neither caps, nor collar nor deadbands for this PC.

We are concerned about the PC target for the following reasons:

- We support the need for a zero target, and will do everything in our control to work towards this target. However, we consider that achieving this performance level is unrealistic for a company of our scale.
- Our plans to address Serious Pollution Incidents will take time. This is particularly the case given that a large proportion (45%) of serious pollution incidents occur on our un-telemetered assets.

Our forecast performance may improve as and when asset health improvement workstreams are approved through the gated allowance. We aim to continue reducing the number of incidents that impact the water environment and recognise the challenges we have faced during AMP7. In our Business Plans, we have proposed reducing the total number of pollution incidents. However, we need to do more work through our Turnaround Plan and the asset health improvement gated allowance to be confident that this will translate into reduced numbers of serious pollutions.

Our concerns around the Performance Commitment target level

Zero compliance rate is needed but is unrealistic to achieve.

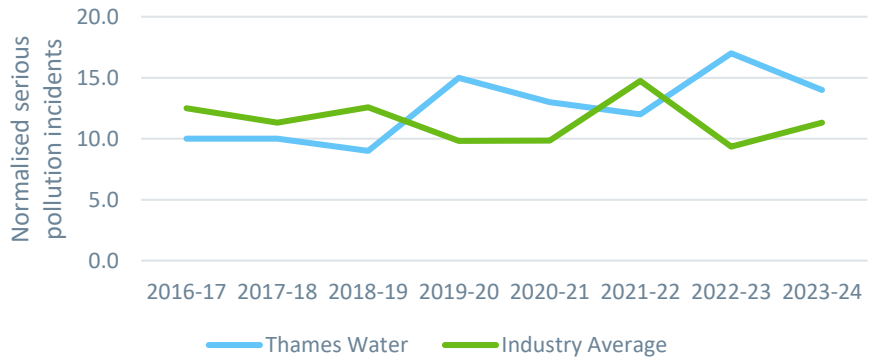
Achieving zero serious pollution incidents is highly challenging given the scale of our network and the challenge of visibility, especially for the large fraction of incidents which are caused by third parties.

The explanation of these challenges is set out in External Sewer Flooding and Total Pollution Incidents.

Normalised performance analysis: comparing apples with apples, we are middle ot the pack for serious pollution incidents

Instead, we focus on the data itself. Normalising for scale, we are a roughly average performer. Figure 52 shows industry average performance, if every company had the same size network as Thames Water. [62] This shows that Thames Water's historic performance looks relatively in line with the industry average, outperforming it on 4 of the last 7 outturn years.

Figure 52 - Historical Normalised SPI – Thames Water versus Industry Average



Source: Thames Water's companies' Business Plans data analysis.

[62] Specifically, we normalised using the following formula, where SPI denotes the number of serios pollution incidents per sewer length for company "i" :

$$\frac{SPI_i}{Sewer\ length_i} * Sewer\ length_{Thames\ Water}$$

In Figure 53 we calculate the annual percentage improvement rate in normalised Serious Pollution Incidents and calculate the upper quartile of that change. A negative percentage rate denotes a decrease in performance, i.e. an increase in the number of incidents. Our data estimates show there was a 50% increase in the number of Serious Pollution Incidents as the Upper Quartile for this time period (on average). Whilst Thames Water's performance changed slightly on average over the period, this was to a much lesser extent than the industry overall.

This data also demonstrates that achieving zero incidents is very rare and it has only been achieved a handful of times by any company in the industry.

Figure 53 - Annual percent improvement in the number of Serious Pollution Incidents

Company	Average - Period	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Anglian Water	-7%	-74%	47%	-40%	22%	-27%	22%	0%
Welsh Water	-30%	-50%	-66%	60%	-50%	0%	-66%	-40%
Northumbrian Water	28%	56%	50%	-50%	-33%	75%	100%	0%
Severn Trent Water	-2%	71%	-255%	43%	50%	-100%	75%	100%
South West Water	-26%	25%	33%	50%	-200%	-165%	75%	0%
Southern Water	-52%	-33%	-75%	0%	43%	-200%	58%	-160%
Thames Water	**-9%**	**0%**	**10%**	**-67%**	**13%**	**8%**	**-42%**	**18%**
United Utilities	12%	33%	51%	100%	0%	-100%	100%	-100%
Wessex Water	-39%	-49%	-34%	75%	-300%	-25%	0%	60%
Yorkshire Water	-15%	14%	-133%	50%	57%	-67%	40%	-67%
Industry upper quartile	**-50%**	**-45%**	**-73%**	**-30%**	**-45%**	**-100%**	**6%**	**-60%**

Source: Thames Water's companies' Business Plans data analysis. A positive (negative) number denotes an increase (decrease) in performance

Factors outside our management control make it extremely challenging to get to zero

Our review of our serious pollutions over the last 5 years has concluded that 45% were on assets that are not telemetered. With these incidents we do not have sufficient visibility at an early enough stage to prevent the incident becoming serious.

We expect our performance to improve over time as we roll out targeted depth monitors to improve our visibility. We will be significantly upscaling our digital network coverage and by the end of AMP8 we will have more than 50,000 monitors on our network. This is one of the largest programmes in the industry. We also have initiatives in place as part of our Pollutions turnaround plan to improve our speed of response and to make it easier for the public to report a pollution. This takes time to do, and we cannot monitor every single part of our network.

Approximately 40% of serious pollutions over the last 5 years have been due to third party causes outside of Thames Waters control. These should be excluded from our target, preferably with a specific exclusion.

Setting a deadband akin to the one used for CRI is a pragmatic solution

Alongside with the industry, our performance has been broadly flat over the past decade, with some better years and some worse years. We recognise that the number of serious pollutions we are responsible for is totally unacceptable, but we must be given a degree of room to achieve this rather than incurring large additional penalties immediately. Immediate large penalties would be the inevitable consequence of the Draft Determination proposals, and do not change our incentive to improve.

Recognising the need for a zero target but also the practical impossibility as evidenced above, we suggest an alternative for Ofwat would be to set a deadband. This has been successfully used for CRI in PR19 and (per Draft Determination) for PR24 which has similar characteristics to Serious Pollution Incidents – there is a need for the target to require perfection, but a recognition this may not always be possible, not least due to factors outside of company control.

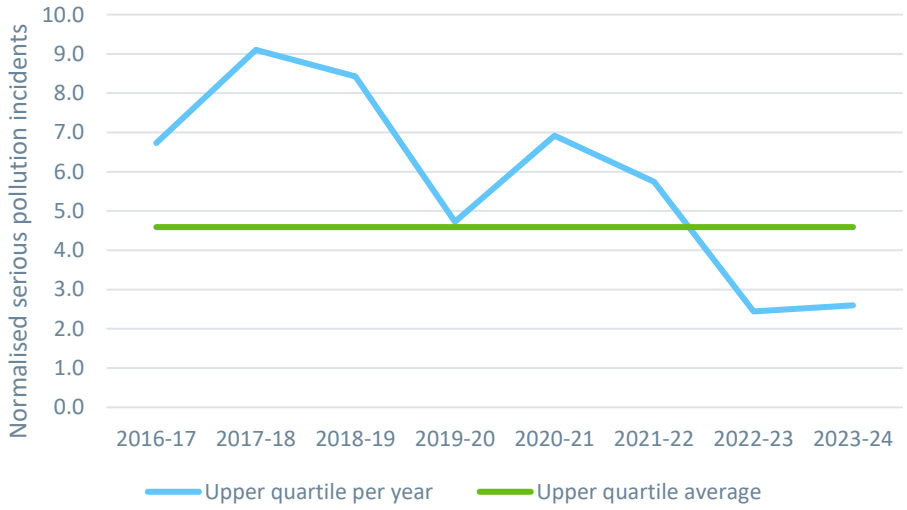
Deadband analysis

To identify an appropriate level of deadband and to maintain a performance incentive, we looked at the industry upper quartile of the normalised number of SPI for the last 7 years of outturn data. This is shown in Figure 5454 below.

Based on our analysis, we propose a deadband set at 4.6 number of incidents, rounded to 5. We note that for the last two years of data the upper quartile is lower, but this is driven by a small number of companies and is not yet a clear trend, nor is it obvious this is replicable by other companies with different network and customer characteristics.

This level still provides strong incentives for us to improve – in practice we are unlikely to achieve a performance within this deadband in AMP8 – and we remain committed to our Business Plan submission. At the margin, we are still very strongly incentivised through the ODI regime, as well as the substantial Environment Agency and reputational incentives, to improve our serious pollutions performance.

Figure 54 - Historical upper Quartile of Serious Pollution Incidents per year



Our concerns with the ODI rate.

The ODI rate in Ofwat's Draft Determination is 59% higher than the indicative ODI rate published in August 2023. In the ODI Rates section we suggest a number of amendments to

Ofwat's performance range and ODI rate calculations. Namely, including 2023-24 performance data and adjusting to an industry-wide median unit incident rate. Incorporating these changes will reduce the ODI rate to £1.68m

Our concerns with the absence of a collar.

We have strong legal obligations to improve our performance on Serious Pollution Incidents. Very poor performance would result civil penalties from the EA. The maximum penalty for water companies who pollute the environment will raise for water companies is now unlimited removing the previous cap of £250k.[63] A collar protects us from unlimited financial exposure through the ODI regime, which would otherwise be double jeopardy given our legal obligations. As set out in the Caps and Collars section of this document, we will focus on minimising the number of Serious Pollution Incidents, regardless of whether there is a collar or not.

Our proposal to Ofwat

We remain committed to our Business Plan and propose Ofwat use this to set our targets. Our operational assessment is that our plan remains stretching but realistic in the wider context of an increasing challenging operating environment – and we note many companies are forecasting a level we consider they will not be able to achieve in practice. We should not be penalised for failing to achieve implausibly tough targets, especially when many incidents are beyond our control.

- If Ofwat decides to go ahead with its preferred target level, we propose a deadband for the reasons set out above.
- We also propose that events caused by third parties on our un-telemetered assets are excluded from the definition. This is so we are not penalised for events demonstrably beyond our control. The amount of these will reduce over time as we monitor more assets, but we cannot monitor everything from day one. It is right we are held to a high standard on serious pollutions. It is not right we are held accountable when third parties take actions which result in serious pollutions over which we have no control.
- We also propose an ODI rate from of £1.68m.
- We propose a collar of 0.5% regulated equity.

[63] Source: https://www.gov.uk/government/news/unlimited-penalties-introduced-for-those-who-pollute-environment

13. Discharge Permit Compliance

Key points

- While Thames Water will strive to achieve 100% compliance, this target will become more challenging to achieve in AMP8, especially with the inclusion of dry weather flows assessment and exacerbating climate change related weather events. The risk profile of the ODI should reflect this increased risk and be reduced.
- We have statutory obligations regarding Discharge Permit Compliance. Unbounded and highly punitive financial incentives through the ODI regime duplicate these and create additional downside risk for Thames Water, without changing our real-world incentives to meet these obligations.
- We propose to recalibrate ODI rate from **£5.86m to £3.80m**. We propose the ODI rate methodology reverts to the industry-wide median for waste, and that the latest performance data is included in the calculation
- We propose to set 0.5% RoRE collar. This is a downside-only incentive with a high ODI rate. It will be important to have financial protections against more extreme scenarios.

Figure 55 - Discharge Permit Compliance

	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals						
TW forecast - Draft Plan	100.0%	100.0%	100.0%	100.0%	100.0%	
Ofwat PCL	100.0%	100.0%	100.0%	100.0%	100.0%	
Ofwat ODI rate						£5.86m
Forecast ODI Penalty	£-	£-	£-	£-	£-	**£-**
TW Draft Determination Response						
Rebased ODI rate						£3.80m
TW Proposed PCL	100.0%	100.0%	100.0%	100.0%	100.0%	
TW Proposed collar						0.5% RoRE
Forecast ODI Penalty	£-	£-	£-	£-	£-	**£-**

Numbers in blue cells represent Thames Water's proposed mitigations

Context

Thames Water will strive to achieve the 100% compliance target set by Ofwat. We are investing in our Sewage Treatment Works (STWs) to accommodate anticipated growth within our catchments using existing treatment capacity. Some sites will require an upgrade to meet permit conditions (as determined by the Environment Agency), to ensure that our assets do not have a negative impact on the health of our rivers and that we deliver against the expectations of our customers. Our Enhancement Case on STW growth sets out the funding that we will require to deliver the growth upgrades at specific sites. Please refer to the Cost Assessment Chapter of our Draft Determination response for more information.

Despite these efforts, 100% compliance in AMP8 will become even more challenging than in AMP7, for the following reasons:

- Dry Weather Flow is a newly introduced assessment criteria in PR24 that brings additional challenges.
- In our October 2023 submission, we recognised that we are unable to deliver the entire AMP7 WINEP programme by the end of AMP7 due to increased complexity and cost. Some of the outputs that are delayed could increase the risk of us failing Discharge Permit Compliance as new Environmental Permits are likely to be issued by the EA prior to actual completion of the improvement works.
- Whilst we are taking appropriate steps to improve our resilience and mitigate risks, the growing impact of climate change and extreme weather events increases the risk of operational failures.

We are also concerned about the size of the ODI rate, which increased by 210% in the Draft Determination, from £2.8m to £5.86m. Especially given this is a downside-only incentive, we believe a highly punitive incentive like this would unduly increase the financial risk for water companies in an area where we already have statutory compliance obligations, enforced by the EA, and where breach carries the possibility of an unlimited financial penalty.

Our concern around more challenging conditions to achieve 100% compliance in PR24

Dry Weather Flow (DWF): This is a newly introduced assessment criteria in Discharge Permit Compliance in PR24. DWF is the average daily flow treated by a Sewage Treatment Works (STW) during a period without rain. Currently, EA assessment of compliance with DWF permit conditions at each STW is ad-hoc. The EA have stated that they will be formalising and standardising their DWF compliance assessment for application in AMP8. In addition to effluent quality Discharge Permit Compliance, the EA have stated that they will add DWF compliance as a further metric as part of the Environmental Performance Assessment (EPA). To enable compliance, once these proposed changes come into force, revised DWF permit conditions will be required for some STWs and these will need to be agreed with the EA. In some locations, there is a risk that STWs will become failing sites against the Discharge Permit Compliance PC due to the revised conditions.

Impact of climate change: It will also be increasingly difficult to achieve 100% compliance in the face of extreme weather conditions resulting from climate change. Whilst we anticipate better results during 'normal' weather years, Discharge Permit Compliance will be more challenging in extreme weather years.

Our concerns around the ODI rate

The ODI rate has increased substantially at Draft Determination compared to the August 2023 publication. As set out in Section 3 of this document, the ODI rate proposed in the Draft Determination needs to be updated for 2023/24 data (99.22% in 2023/24 APR). It also needs to be set using the full industry median range for WaSCs, not just a subset of large-RCV companies. As set out in the ODI Rates section above, we should not be penalised for where an adjustment is made for small companies.

Our concerns around the absence of a collar

Discharge Permit Compliance is a legal obligation. It is also a penalty-only PC, meaning a pure downside risk. It has a high ODI rate. As such, we are very well incentivised to improve on any failing in our compliance in this area of performance. A collar would reduce our financial exposure, without changing our incentives to deliver. We still remain bound by our statutory obligations, even in the event our performance is worse than the collar - breach carries the possibility of an unlimited financial penalty if enforcement action is taken by the EA. We must also still continue to take steps to bring a site into compliance to achieve compliance for subsequent years. A collar would provide us with strong financial protections against more extreme scenarios, without changing our incentives to improve performance.

Our proposals to Ofwat

While Thames Water strives to achieve 100% compliance, we are concerned that water companies face more challenging conditions in AMP8, especially with the inclusion of dry weather flow assessment and increasing risks of climate change. Hence, we think it is important to recalibrate the ODI rate and set a collar so that, in the event we are unable to achieve 100% compliance, we are not exposed to excessive financial penalties through the ODI regime,

First, we propose to use the ODI rate corrections set out in Section 3 of this document. We propose the ODI rate methodology reverts to the industry-wide median for waste, and that the latest performance data is included in the calculation. Accounting for these changes, ODI rates should reduce from £5.86m per percentage point in Draft Determination to £3.80m per percentage point. A drastic increase in the ODI rate can expose water companies to significant penalties. We believe we are already sufficiently incentivised, especially given the possibility of an unlimited financial penalty should the EA take enforcement action in consequence of non-compliance.

Second, we propose to apply a collar on Discharge Permit Compliance to limit extreme exposure to financial risk, especially given it's a penalty-only PC with a high ODI rate. We see no credible reason for excluding Discharge Permit Compliance from the caps and collars regime, and hence propose a collar to be applied. We consider that a 0.5% RoRE threshold would be suitable, which is of consistent size with the rest of PCs with caps and collars. This is still a very wide collar with over £100m of risk over the price control period.

14. Biodiversity

Key points

- The proposed definition incentivises the wrong behaviours from companies. The baseline should include projects identified and baselined in AMP7. We propose reverting to our proposed approach to this PC.
- The proposed target level is unachievable – we have a strong evidence base from AMP7 of what can be delivered in our region. If Ofwat is unwilling to use our approach to defining the PC, then at the least our target level for the PC should be used, as this incorporates the best available evidence on highly company specific factors, rather than using a generic median value.
- The baseline should include projects identified and baselined in AMP7
- The ODI rate is below the cost of delivery. We would be better off in many cases not delivering improvements and incurring a penalty.

Figure 56 - AMP8 proposals – Discharge Permit Compliance

	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals						
TW forecast - Draft Plan	-	-	-	0.32	0.44	
Ofwat PCL	-	-	-	0.15	1.97	
Ofwat ODI rate						£2.75m
Forecast ODI Penalty	£-	£-	£-	£0m	(£4m)	**(£4m)**
TW Draft Determination Response Mitigations						
TW Proposed PCL	-	-	-	0.32	0.44	
Forecast ODI Penalty	£-	£-	£-	£-	£-	**£-**

Note: for purposes of this summary table and consistency with other tables, we have used our proposed values for the PC as set out by Ofwat, not for our PC as set out in the business plan.

Context

Ofwat proposed a new PC for PR24 measuring net change in biodiversity. The PCL for biodiversity is set at zero in Draft Determination. We have strong concerns about Ofwat's PCL, definition and ODI rate.

We propose that Ofwat uses the PC we proposed, rather than a generic PC applied to all companies. If this is not accepted, we propose the PCL is set in line with our business plan.

Our concerns around the Performance Commitment target level

Improving our biodiversity net gain is very challenging in practice.

In our PR24 Business Plan submissions, we predicted that we would make a Biodiversity Net Gain of 121.2 units over 9 sites by 2030/31 which will give a 16% increase in biodiversity across these sites. This falls significantly short of Ofwat's current model for this PC.

Thames Water is the only water company in the UK that set themselves a bespoke Biodiversity Net Gain target in AMP7, which looked at improving biodiversity on our operational landholdings and using DEFRA's metrics to measure success. This has given us additional insight into the achievability and potential practical issues with this PC in its current form.

A major issue we have encountered in AMP7 is that a large proportion of our land is considered a heavily modified waterbody. When we had originally undertaken our GIS exercise before setting our AMP7 target, we had not considered the change in the Reservoir Act, putting more pressure to keep the reservoir banks and their curtilage managed to a short length. This has meant that, even when spending several million pounds to improve the public value of sites, we have received minimal biodiversity net gain. A related issue is that we have no areas left to undertake significant biodiversity net gains at such sites - this is a common occurrence on our London sites.

The PC incentivises us to look at improving biodiversity in isolation from other commitments such as natural capital, public value and achieving our Water Industry Act commitments to open our sites to the public where possible. In our region, improving biodiversity requires making difficult choices on not meeting some of these other objectives. An incentive design that aligns these objectives would be better, as was set out in our original proposal.

Setting the baseline to zero means we cannot progress sooner by baselining in AMP7.

Ofwat has set the 2024-25 baseline at zero. It has previously been agreed with Ofwat that land could be baselined in AMP7 so companies could start reporting progress sooner in AMP8 where appropriate. However, by forcing the net gain on our operational sites, it incentivises the wrong behaviours to achieve the highest unit gain value on the sites. This also forces us to discount the 100 sites where we have delivered nearly 400 biodiversity units in the last 4 years.

Use of a median to set targets.

In this instance, using the median is advantageous to some companies but unfair to others like Thames Water. Each company defined their target based on what they considered was achievable, itself based on an understanding of the biodiversity value and potential of their landholdings and what could be delivered through the AMP8 programme. Thames Water has significantly less available landholdings than compared to many other water companies, and more experience than other companies in delivering biodiversity projects in practice. This should be taken into account, rather than setting a generic target based on median values.

The ODI rate is below cost.

The cost model at £20,000 per unit is insufficient; delivery of units in London and Surrey alone are currently predicted at £80,000 per unit. On this basis, we are better off receiving a penalty and not delivering improvements in biodiversity in many cases. This is not an outcome that

benefits our customers. We would welcome the opportunity to discuss with Ofwat how this could be calculated.

Our proposal to Ofwat

- We propose that the PC that we have put forward, with the cost model associated with South East prices, is taken into account again, rather than a generic PC for water companies based on percentage gain of landholdings.
- Failing this, we propose that the PCL is set in line with our proposed target levels which we consider to be appropriately stretching but achievable. We have included this approach in our summary tables. We should be allowed a baseline that includes opportunities identified in AMP7, to incentivise the right behaviours

15. Measures of Experience (Overall)

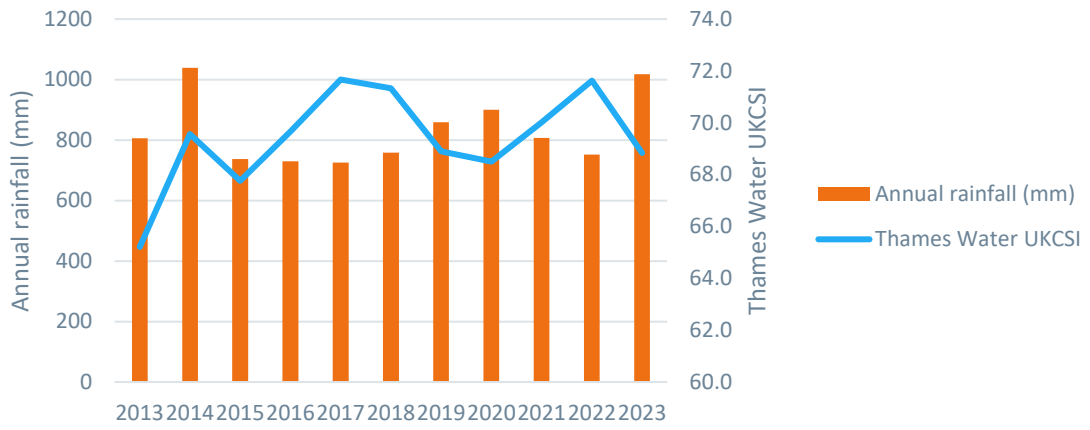
Ofwat has introduced significant changes to the design of C-MeX, D-MeX, and BR-MeX in its Draft Determinations. We address each of our concerns in turn below, but there are some common themes across the survey-based metrics.

First, the move to setting incentive threshold on RoRE basis rather than revenue[64] has been accompanied in practice with a disproportionately large increase in financial exposure compared to PR19. As a result, Thames Water is exposed to maximum of £226m, £113m, £90m penalties respectively for C-MeX, D-MeX, and BR-MeX (total of £429m across MeX incentives) in PR24. Our theoretical exposure is nearly double for C-MeX than for any other PC, including other PCs which customers highly prioritise (i.e. supply interruptions, sewer flooding, etc.) D-MeX and BR-MeX incentives are of equivalent size to other PCs that are considered the highest priority. MeX incentives are clearly of disproportionate size compared to other high-priority PCs.

Second, the nature of the MeX incentives is that they can double penalise companies. There already exist ODI penalties on poor operational performance, which directly contribute to poorer C-MeX and B-MeX performance. Similarly, the EA issues fines for certain failures, which can influence public perception negatively and result in poorer C-MeX and B-MeX performance. While quick, efficient, and kind response to our customers is an important factor in CSS assessment, CSS is also significantly influenced by our asset health and operational performance. There is clear evidence that customer satisfaction is lower when operational performance is poor. **Error! Reference source not found.**demonstrates that Thames Water's UKCSI scores decrease in years of high rainfall (which increases operational failures). This means we are punished twice for the same failing, which is a clear double jeopardy where a key driver of survey results is our day-to-day performance. We accept that a level of double penalty is an unfortunate by-product of incentivising customer experience as well as outcomes – however, making all of these incentives high-powered results is an extreme and unacceptable level of double penalty, and far more than at PR19. This is not a proportionate regulatory regime, nor one aligned to customer priorities.

[64] Residential retail revenue (C-MeX), Developer services revenue (D-MeX), and Non-household wholesale revenue (BR-MeX).

Figure 57 - Annual rainfall in Southeast and Central South England and Thames Water's UKCSI score [6566]



Improving customer experience is of utmost priority to Thames Water. We are making significant investments to resolve issues faster and provide a smoother billing experience including digitalisation and channel shift. However, we have serious concerns that the current regulation is a threat to our performance improvement, rather than an enabler. We strongly disagree that simply increasing the size of the incentive is effective regulation that drives positive change in water companies' performance – it would not change how we operate in practice and how we strive to improve. Instead, it will result in an unduly punitive regime with large near-guaranteed penalties which deters investment.

We also include a short appendix covering more detailed points relating to the design and methodology of the incentives. Please refer to 'TMS-DD-053: Thames Water PR24 DD response - C-MeX, D-MeX and BR-MeX technical appendix'

Below we set out our views of the Draft Determination across C-MeX, D-MeX, and BR-MeX incentives respectively.

[65] Met Office; Climate maps and data
[66] UKCSI; Utilities Sector Resource Pack July 2024 Results

16. C-MeX

Key points

- Ofwat has proposed to change the incentive threshold based on appointee's RoRE rather than on retail revenue. We believe this is of disproportionate size compared to other priority PCs, which have 0.5% threshold in either water or wastewater price control. We propose to reduce the threshold to 0.25% RoRE appointee level, to ensure C-MeX is of equivalent size to other high priority PCs.
- Ofwat proposed to expand the benchmarking to all UKCSI sectors. However, we believe this decision neglects the unique challenges faced by monopolised utilities with large infrastructure base. We propose to limit benchmarking to just utilities, rather than all sectors.

Figure 58 - AMP8 proposals – C-MeX

	Baseline (2024/25)	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals							
Appointee RCV		£8,189m	£8,545m	£8,901m	£9,460m	£10,013m	
Ofwat max penalty	0.5%						
Maximum ODI Penalty		(£41m)	(£43m)	(£45m)	(£47m)	(£50m)	**(£226m)**
TW Draft Determination Response							
TW Proposed Rate	0.25%						
Maximum ODI Penalty		(£20m)	(£21m)	(£22m)	(£24m)	(£25m)	**(£113m)**

Context

We disagree with the 0.5% appointee level RoRE for C-MeX, which applies to both Water and Wastewater services. Using the 0.5% RoRE value disproportionately increases exposure for C-MeX compared to other PCs, where either the Water RCV or Waste RCV is used. We are taking the same (0.5%) percentage of a much larger number (RCV) for C-MeX than for any other PCs. There is also insufficient evidence that a higher incentive will meaningfully improve water companies' performance against the assessment criteria.

Ofwat has also suggested to expand the league table to all sectors in UKCSI, instead of water companies only. However, we have concerns with the fairness of this approach for the following reasons:

- Utilities with a large infrastructure base need to make time- and capital-intensive investments to significantly enhance performance and thus customer satisfaction. A sudden move to a new benchmark is not appropriate when it will take years to make some of the changes that are planned, consistent with our various statutory targets and obligations.

- Because water companies are monopolies in their respective regions, customers cannot choose their service provider, which leads to lower satisfaction compared to competitive industries where customers have always chosen to 'opt-in';
- Utilities provide essential goods and services for customers' day-to-day living, and hence customers will naturally have a stronger opinion if they are unsatisfied.

Our concerns regarding the incentive threshold.

Ofwat proposes an incentive threshold at 0.5% of RoRE in PR24, compared to Residential Retail Revenue method in PR19. While we accept this shift to RoRE-based methodology, we disagree with the size of the incentive, as it disproportionately increases exposure to penalty, maximum at £226m.

Under current proposals in the Draft Determination, C-MeX incentive is significantly bigger compared to other operational incentives, which directly impact customer experience. This is because C-MeX applies 0.5% RoRE threshold for both water and wastewater RCV, whereas other PCs apply 0.5% RoRE threshold for either water or wastewater RCV (but not both). This nearly doubles incentive size for C-MeX compared to other PCs, which disproportionately places emphasis on C-MeX, rather than the outcomes which customers care most about. In fact, based on our survey of 'What Customers, Communities, and Stakeholders Want,' customer experience was ranked as lower priority (Figure 59). We believe it is a priority that we improve customer experience by making enhancements in our operational performance, and hence we propose C-MeX should be of equivalent size compared to other PCs. In practice, this means reducing the appointee-level RoRE to 0.25%. This would make it commensurate with the 0.5% RoRE measures which are calculated on just one of water or wastewater RCV.

Figure 59 - Customer ranking of 'Wants'[67]

High priority	I want safe, high quality drinking water
	I want fair and affordable bills
	I want a reliable supply with minimal disruption
Medium priority	I want you to prevent sewer flooding and take waste away safely
	I want you to fix leaks and ensure there is enough water now and, in the future,
	I want you to stop polluting rivers and to improve their quality
	I want you to reduce your impact and restore the environment
Lower priority	I want you to reduce emissions and reach net zero
	I want an easy customer experience and tailored support
	I want you to have a positive impact on the community

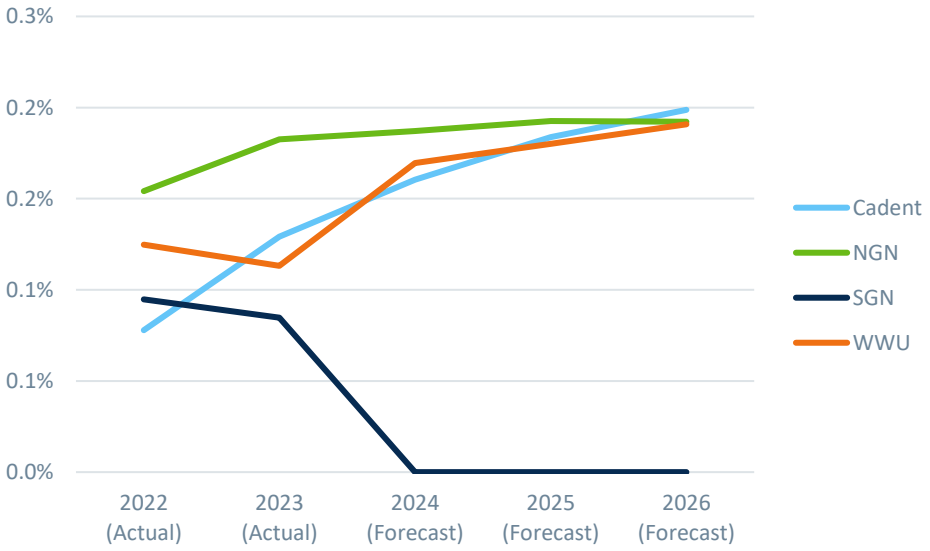
[67] Thames Water: TMS04 What Customers, Communities and Stakeholders Want, v18.3; September 2023

We disagree with Ofwat's position that bigger size incentives will push companies in the right direction to improve performance. C-MeX scores against three assessment criteria and there is no evidence that a bigger incentive size will meaningfully improve our performance across the criteria:

- Operational contacts: We are already heavily incentivized to improve operational contacts through other PCs. It is very time- and capital-intensive to improve operational performance and then to translate into higher scores. We have very strong incentives on areas like sewer flooding, pollution, drinking water quality and supply interruptions, which are designed to directly incentivise us to improve in these areas. Additional incentives through C-MeX do not change that.
- CES: We have limited control over CES, as this is largely driven by public perception. This is especially difficult to overcome in the short-term, considering Thames Water's negative perception through media. Whilst we accept we have a lot to do to improve, it is not clear how a bigger incentive will change how we attempt to improve our public perception.

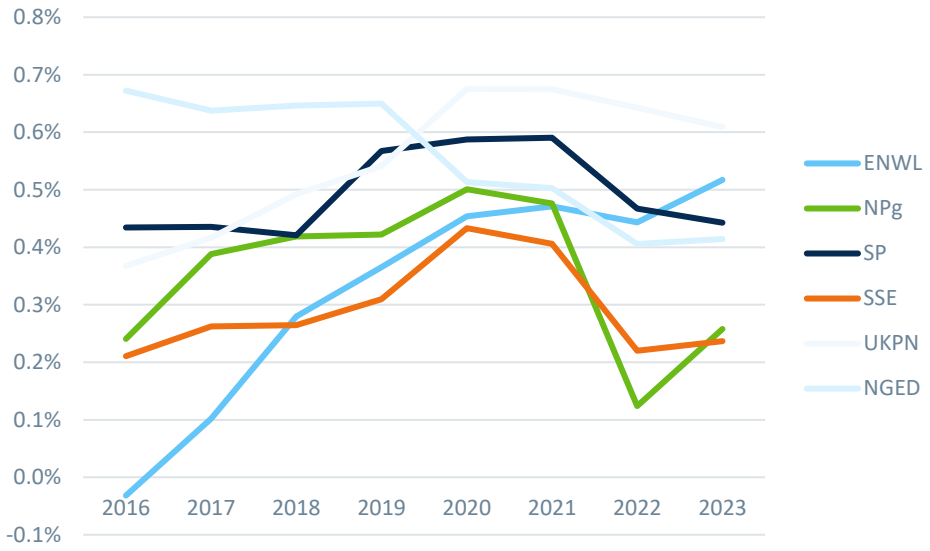
Ofwat is concerned that using the utilities sector of UKCSI will not be challenging enough to provide good quality service. The regulatory frameworks of the gas and electricity sector do not agree with this, with the majority of energy distribution companies receiving reward payments for similar standards of customer service. In July 2024, UKCSI average score of energy companies was at 69.8, while average score of water companies was at 69.5.[68] Despite the marginal difference in average UKCSI scores, water companies are exposed to significantly greater range of penalty compared to gas distribution and electricity distribution companies. Figure 60 shows all gas distribution will be earning 0-0.2% RoRE reward for Customer Satisfaction Survey ODI-F in GD2 and Figure 61 shows all electricity distribution companies won 0-0.7% RoRE reward for Broad Measure of Customer Service in ED1, except ENWL in 2016. This is contrary to the large penalty exposure that some water companies face, which will become even more punitive with all-sector average benchmark.

Figure 60 - Customer Satisfaction Survey ODI-F in GD2 - % RoRE reward[69]



[68] UKCSI; Utilities Sector Resource Pack July 2024 Results
[69] Ofgem; RIIO-1 Regulatory Performance Data 2022-23 for Gas Distribution, Gas Transmission and Electricity Transmission

Figure 61 - Broad Measure of Customer Service ODI-F in ED1 - % RoRE reward[70]



Our concerns around all-sector average UKCSI league table

Ofwat proposes to use the UKCSI all-sector average as benchmark in PR24, compared to the water sector average from PR19. Ofwat's reasoning is noted in Draft Determinations that *'core aspects of customer service are comparable across industries.'* However, Ofwat fails to acknowledge there are unique challenges (and arguably greater challenges) to addressing customer satisfaction in the monopolised utilities sector, especially with a large infrastructure base.

Compared to most other sectors, the utilities sector requires time and capital-intensive enhancements to build infrastructure and improve performance. As a result, it is more difficult for utilities to quickly improve customer satisfaction compared to other sectors.

Moreover, customers cannot choose their service provider in the case of monopolised utilities, which contributes to worse customer satisfaction scores compared to competitive industries. In the case of competitive industries, customers can simply choose a different provider if they are not satisfied – they 'opt-in' and so will typically be more satisfied than customers who have no choice. In the case of monopolised industries, customers cannot choose, and there are realistic limits to how much water companies can improve within a short period of time. We understand Ofwat's concern that monopolies can unfairly treat their customers as customers cannot choose their supplier, and hence it is Ofwat's responsibility to create powerful regulation that protects customers. However, it is unrealistic to expect the same level of customer satisfaction for monopolised utilities compared to competitive industries.

It is also important to acknowledge that utilities like water are critical to people's day-to-day living and hence customers will naturally have a stronger opinion if they are unsatisfied. It is much more difficult to achieve a similar level of customer service score compared to other industries, which customers choose to engage in. According to UKCSI, the top 3 sectors with the highest customer satisfaction scores are Non-food Retail, Food Retail, and Tourism, which can provide leisurely satisfaction to varying degrees. Utilities consistently rank near the bottom industry each year, which itself is proof that it is difficult to achieve similar level of satisfaction as other industries – it is not just a water industry challenge.

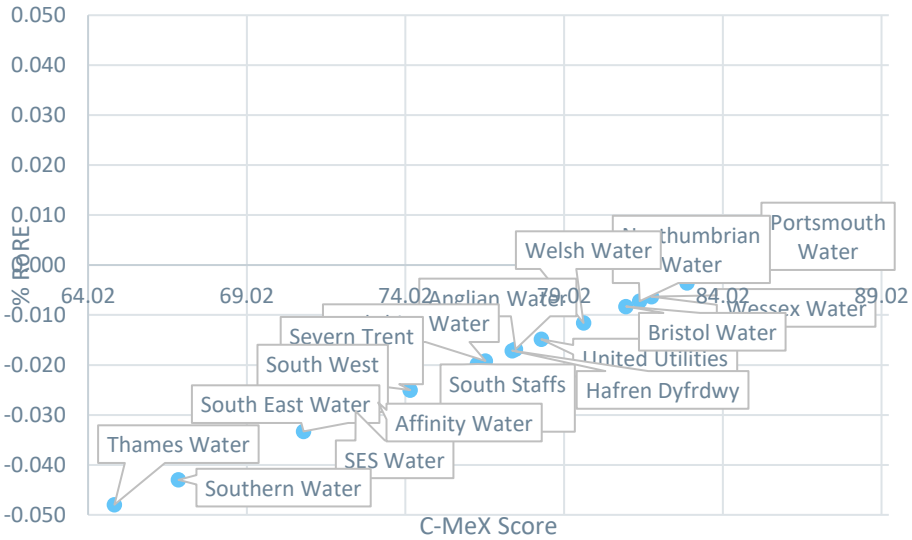
[70] Ofgem; RIIO-1 Electricity Distribution Regulatory Performance Data 2022-23

Figure 62 - UKCSI Ranking by Industry (July 2024) [71]

Rank	Industry	July 2024 Score
1	Retail (Non-food)	80.4
2	Retail (Food)	79.4
3	Banks & Building Societies	79.3
4	Tourism	79.3
5	Leisure	79.0
6	Automotive	78.5
7	Insurance	77.5
8	Services	73.5
9	Public Services (National)	73.3
10	Telecommunications & Media	73.3
11	Transport	71.5
12	Public Services (Local)	70.3
13	Utilities	69.8

Based on our calculations, the updated methodology using all-sector UKCSI average suggests that all water companies will be in penalty range using FY24 data (Figure 63). This is clear evidence that Ofwat's proposal to shift to UKCSI all-sector average is an unrealistic and unfair benchmark. Ofwat has expressed concern in previous consultations that limiting comparison to just water or other utilities sector would not be stretching enough for companies to improve. However, the monopolised utilities sector is fundamentally different from other sectors, and it is important to account for its unique challenges when setting effective regulation.

Figure 63 - Expected reward/penalty for all water companies using UKCSI all-sector average and FY24 data

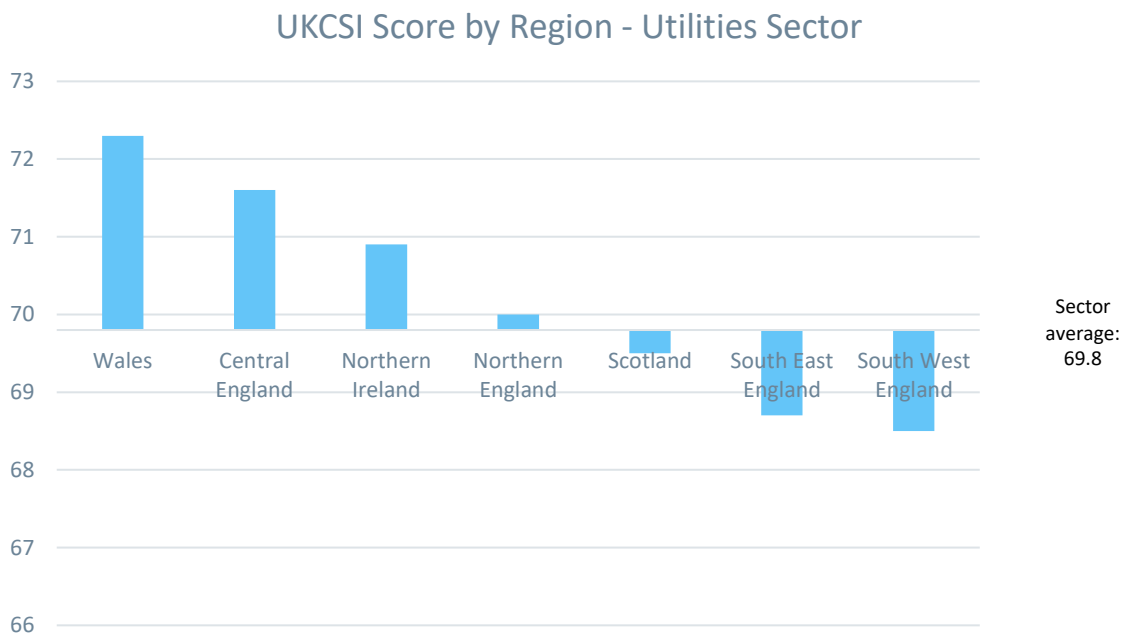


[71] UKCSI; July 2024 UK Customer Satisfaction Index Report

Our concerns around the unique challenges Thames Water faces

Customers of utilities in the London and South of England region tend to score more harshly in customer satisfaction surveys. Brint and Fry (2019)[72] investigated differences in regional satisfaction and have discovered that ratings given by people from the London region were significantly lower than those from elsewhere. UKCSI data also suggests customer service scores in Southern England are lower compared to the rest of the country, not just in the water sector but in the broader utilities sector (Figure 64).

Figure 64 - UKCSI utilities sector score by region (July 2024) [73]

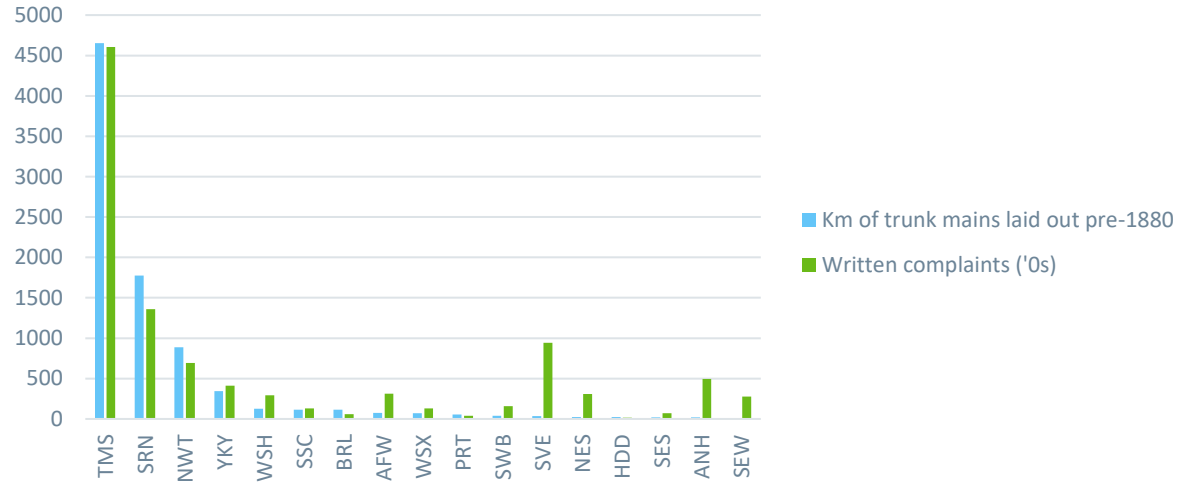


We are also very aware of the negative public perception of Thames Water. Whilst this partly reflects areas of our poor performance, it is also driven by a level of media attention and bias which is not observed for other companies. We propose that this negative bias should be accounted for when Ofwat assesses CES scores and determines the level of penalty for Thames Water.

Moreover, Thames Water has the oldest assets compared to any other water companies, which we believe contributes to lower CSS. For example, Thames Water, Southern Water, Northumbrian Water have the most kms of trunk mains laid pre-1880s and consequentially have the highest number of written complaints (Figure 65). There is clear evidence that water companies with oldest assets are faced with asset health challenges, which leads to lower customer satisfaction.

[72] Andrew Brint & John Fry; Regional bias when benchmarking services using customer satisfaction scores; 2019
[73] UKCSI; Utilities Sector Resource Pack July 2024 Results

Figure 65 - km of trunk mains assets laid out pre-1880 and number of written complaints (2022/23 data) [74] [75]



Above concerns lend extra weight to the difficulty of appropriately benchmarking utilities, especially those with regional monopolies where the underlying customer characteristics differ. This suggests extra care must be taken when setting 'high-powered' incentives based on customer views, or in benchmarking across sectors or geographies.

Our proposal to Ofwat

Building on our above concerns, we request two changes in the Final Determinations for C-MeX.

First, we propose that the incentive threshold for C-MeX is adjusted to 0.25% of appointee RoRE. This is because the MeX incentives are the only PCs where the RoRE threshold is applied across both the water and wastewater RCVs. As our water and wastewater RCVs are of broadly similar value, C-MeX is incentivised twice as much as other PCs with 0.5% RoRE thresholds. It is not only the highest-powered incentive, but also around *twice* as high-powered as any other incentive. This is not careful calibration, and the large gap is unjustified. Key water and wastewater PCs tend to be very high customer priorities and it is not clear why C-MeX should have twice as much financial exposure than any other PCs. Reducing the RoRE threshold to 0.25% keeps C-Mex amongst the highest-weighted incentives but removes the large gap between it and other top-priority PCs. We suggest this change is applied to all WASCs as they face the same challenge;

Second, we propose to limit the league table to UKCSI monopolised utilities, rather than all sectors. Monopolised utilities with a large infrastructure base face unique and significant challenges in improving asset performance. Moreover, because customers cannot choose their service provider and utilities are essential to customers' day-to-day living, it is difficult to achieve same level of satisfaction as other competitive sectors. Thus, it is important that Ofwat makes comparable benchmarks with similar peers. 30 companies are captured in the utilities sector from UKCSI, which we believe is sufficient sample size to create the benchmark.

[74] Ofwat; Ofwat Draft Determination Base Costs – Water Model 1.
[75] CCW; Review of household customer complaint handling by water companies in England and Wales; 2023

17. D-MeX

Key points

- The financial threshold (0.25% RoRE appointee level) proposed in the draft determinations for D-MeX is of equivalent size to other highest priority PCs and we believe this is unduly high.
- Using appointee level RCV is inappropriate when the vast majority of services for which surveys are conducted relate to water, not waste.
- Therefore, we propose to set 0.25% RoRE threshold based on water RCV.

Figure 66 - AMP8 proposals – D-MeX

	Baseline (2024/25)	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals							
Appointee RCV		£8,189m	£8,545m	£8,901m	£9,460m	£10,013m	
Ofwat max penalty	0.25%						
Maximum ODI Penalty		(£20m)	(£21m)	(£22m)	(£24m)	(£25m)	**(£113m)**
TW Draft Determination Response							
Water RCV		**£4,233m**	**£4,443m**	**£4,624m**	**£4,803m**	**£4,951m**	
Maximum ODI Penalty		(£11m)	(£11m)	(£12m)	(£12m)	(£12m)	**(£58m)**

Ofwat has proposed an incentive threshold of 0.25% of RoRE for D-MeX in PR24. However, we believe the size of the incentive is unduly punitive for the following reasons:

- Developer Services are mostly around water, and little around wastewater. It is not appropriate to double the incentive size by accounting for wastewater RCV too.
- The RoRE here is appointee-level, not an individual price control as it is for other key PCs. Setting threshold at 0.25% RoRE disproportionately increases risk exposure – D-MeX is as highly incentivised as top priorities like drinking water, supply interruptions and pollutions. Considering D-MeX is not as high priority as these items for our customers, the size of incentive for D-MeX is disproportionately high.
- Ofwat's proposal of 0.25% RoRE is significantly higher than what was proposed in consultation – 12% of DS revenue, which is equivalent to ~0.15% RoRE;
- Ofwat should focus on encouraging competition, not stiffer financial incentives. Developer services is a functioning competitive market in our region.

Our concerns around incentive threshold

Ofwat proposes an incentive threshold at 0.25% of RoRE in PR24, compared to Developer Services Revenue method in PR19. While we accept this shift of RoRE-based methodology, we disagree with the size of the incentive, as it disproportionately increases exposure to penalty, with a maximum of £113m.

0.25% RoRE threshold is applied for appointee level RCV, but we consider this is inappropriate. The developer services on which customers are surveyed are almost entirely water services. Sewerage connections are almost never made by the incumbent in our region, and therefore the D-MeX score is almost solely a representation of water developer services performance. D-MeX is there to measure and incentivise the service provided to developer customers, and so we only provide Ofwat with the contact details for developers for whom we have delivered a service, which is almost entirely water services (81% of survey responses). In general, PCs are allocated to the most relevant price control, and as such, adjusting to only apply the RoRE % threshold to the Water RCV would correct this error.

The 0.25% appointee-level also means D-MeX is as strongly incentivised as other PCs at 0.5%. This includes the highest priority areas like sewer flooding, pollutions, supply interruptions, etc. We believe the current size of incentive for D-MeX is disproportionately high and should be recalibrated. Customer priorities have been used to inform Ofwat's proposals for all other incentives, and it is not evidenced that customers value developer services customer experience as much as these other PCs.

Ofwat has previously signalled in July 2023 consultation that D-MeX penalty threshold will be set around 12% of DS revenue. This is equivalent to 0.15% RoRE in the case of Thames Water. However, Ofwat proposes 0.25% threshold, which is significantly greater than what was proposed in the consultation. As described in Section 16, we highly disagree that simply increasing the size of the penalty drives positive change in performance. In the case of D-MeX we also have strong competitive pressures to improve.

The incentive design of D-MeX is intended to simulate market pressure to drive us to improve, but the developer services market is active and successful in our region. The regulatory regime should encourage competition with scrutiny on open markets, rather than penalising us in an area where we are prohibited from making profits and where most services will be provided by competitors. We forecast only connecting 30% of properties in our region by 2030. We already have significant market pressure that drives us to improve, and there isn't sufficient rationale to strengthen monopoly incentives to reinforce positive change.

Our proposal to Ofwat

Building on our above concerns, we request 0.25% RoRE threshold for D-MeX should only be applicable to Water RCV, and not Wastewater RCV. As stated above, sewerage connections are almost never made by the incumbent, and therefore D-MeX score is solely a representation of water DS performance. Alternatively, the RoRE threshold should be halved, to achieve the same effect, and to bring it closer into line with the 12% of DS revenue discussed in the previous Ofwat consultation.

18. BR-MeX

Key points

- Ofwat has proposed to set the incentive at RoRE 0.2% at appointee level. This is unduly high given the scale of the services provided, relative to other incentives.
- BR-MeX is a brand-new area of performance measurement – it will require time to 'bed in' for companies to understand how it works, improve performance, and resolve any methodological challenges that naturally arise in a new area of performance measurement.
- As this is a new performance commitment, we propose removing the financial incentive for the first three years to better understand current level of performance, appropriate incentive size, and clear methodology on key performance indicators.
- In addition, 0.2% RoRE threshold should account only for water activities. We propose the incentive size is reduced, either through applying the percentage at risk to just the water RCV (as this covers over 80% of relevant activity) or through simply reducing the headline percentage from 0.2% to 0.1%.

Figure 67 - AMP8 proposals – BR-MeX

	Baseline (2024/25)	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Ofwat Draft Determination Proposals							
Appointee RCV		£8,189m	£8,545m	£8,901m	£9,460m	£10,013m	
Ofwat max penalty	0.2%						
Maximum ODI Penalty		(£16m)	(£17m)	(£18m)	(£19m)	(£20m)	**(£90m)**
TW Draft Determination Response							
TW Proposed Rate	0.1%						
Maximum ODI Penalty		(£8m)	(£9m)	(£9m)	(£9m)	(£10m)	
No penalty for Y1 to Y3		£-	£-	£-	(£9m)	(£10m)	**(£19m)**

Ofwat has proposed an incentive threshold of 0.2% of RoRE for BR-MeX in PR24. However, we believe the size of the incentive is unduly punitive for the following reasons:

- As this is a new incentive with limited historical data and unconfirmed methodology, we believe it is disproportionate and risky to expose water companies to large-scale incentives from the start of the price control period. Companies have minimal idea how they are likely to perform and Ofwat has minimal idea of the correct benchmark, making this a very hard risk to manage. A period of reporting and reputational incentives prior to full financial incentives would decrease risks for customers and companies.
- Non-household services are mostly around water, with less relating to wastewater. Hence it is not appropriate to double the incentive size by accounting for the wastewater RCV too.

- The incentive size of BR-MeX (0.2% RoRE) is 40% of the incentive size of C-MeX (0.5% RoRE). However, this ratio does not reflect the relative sizes of the customer bases or of revenue.
- Incentive size of 0.2% RoRE is nearly 8x the penalties being paid by the entire market currently. This sudden increase in penalty size is not supported with good reason.
- Ofwat's proposal of 0.2% RoRE is significantly higher than what was proposed in consultation – 1.0% of NHH wholesale revenue, which is equivalent to 0.06% RoRE.

Our concerns around the incentive threshold

Setting the RoRE threshold at 0.2% means Thames Water have a maximum penalty exposure of £90m. We are concerned at the size of the incentive, especially as this is a new incentive with limited historical data and methodology yet to be agreed or tested. B-MeX has only recently begun a period of shadow reporting and companies have not yet received any results from shadow reporting B-MeX surveys. Imposing a large financial incentive could consequentially lead to perverse and unintended consequences. Typically, when a new incentive is introduced without historical data, a period of 'bedding in' is allowed for, with non-incentivised reporting and time for the methodology to be amended, and for companies to learn how the new incentive works and understand the drivers.

The 0.2% RoRE threshold is applied for both water and wastewater RCV. However, in FY24, we have observed 22,987 market activities in water vs 4,783 market activities in wastewater. This means that around 83% of requests within the scope of this incentive relate to water, and only 17% to wastewater. Hence, it would be more appropriate to use the Water RCV, not the appointee-level RCV.

Moreover, we believe the incentive size for BR-MeX (0.2% RoRE) is disproportionately large compared to C-MeX (0.5% of RoRE). There are 23x as many household customers as non-household customers (2023-24)[76]. Similarly, we receive 5x more revenue from households compared to businesses. This demonstrates the current incentive size is much too large for BR-MeX compared to C-MeX[77], and even risks creating the perverse incentive for us to prioritise servicing businesses over households, as the financial value per service is much higher for non-household.

Penalties in the NHH Retail market have averaged at £2.8m per annum for the last 3 years for the entire market (i.e. all Wholesalers and all Retailers), with Wholesalers paying c25-30% of this total. The BR-MeX method set out in the PR24 Final Methodology signalled a significant step up in the regards and penalties, of which we were supportive. Maximum penalty for Thames Water on an annual basis would have been approximately double the penalties for the entire market annually up to this point. However, the move to 0.2% RoRE would dwarf this significant increase with the maximum penalty for Thames Water alone being c£22m a year, 8x the penalties being paid by the entire market currently. This is a very large and disproportionate increase which risks unintended consequences.

[76] Thames Water; Data table SUP1A (August 2024 version)

[77] It should be noted that the majority of non-household customers are small and comparable with household customers in terms of their use of water and sewerage services. The current thresholds mean that the incentives implicitly value service to a non-household customer much higher than for a household customer, despite the services typically being very similar in nature. This is not appropriate incentivisation.

In Ofwat's PR24 Final Methodology, Ofwat proposed to apply penalty threshold set at 1.0% of NHH wholesale revenue. This is equivalent to 0.06% RoRE. However, in Draft Determinations, Ofwat proposed 0.2% of RoRE threshold, which is 3.3x greater than initial proposal. This extreme jump in penalty exposure is without good rationale, and as stated previously, we disagree that a bigger incentive size will enable water companies to improve their performance.

Our proposal to Ofwat

Building on our above concerns, we request two changes in Final Determinations.

First, because BR-MeX is a new incentive that hasn't yet been tried and tested, we suggest using the first 3 years as 'shadow' years to collect data without financial incentives. We are concerned that rushing into a new incentive without proper due diligence can bring significant strains on water companies and consequentially consumers. With 3 'shadow' years, Ofwat and water companies will better understand current level of performance, appropriate incentive size and set clear methodology on KPIs. The reputational effects will still be strong, with the 'league table' reported publicly. The financial incentives can 'kick in' from Year 4 of the price control period.

Second, RoRE threshold for BR-MeX should only be applicable to Water RCV, and not Wastewater RCV.

Alternatively, Ofwat can adjust the size of the incentive to 0.1% appointee RoRE level to achieve the same effect. The incentive size for BR-MeX should be adjusted relative to C-MeX, using the relative revenues in scope. Our forecast HH Wholesale revenue in AMP8 is £15.5b and NHH Wholesale revenue is £2.9b, which makes NHH Wholesale revenue c.19% of HH Wholesale revenue. We propose to apply this ratio to BR-MeX threshold in proportion to C-MeX threshold (0.5% RoRE), which would result in a reduction from 0.2% RoRE to c.0.1% appointee RoRE.

19. Other comments on common PCs

Operational Greenhouse Gases (water and wastewater)

We do not support Ofwat's position that emissions performance from totex should not deteriorate or allow increases in emissions. As companies act to deliver improved environmental performance, for example through WINEP or the delivery of the Thames Tideway Tunnel, we believe the associated impact in emissions should be accepted, as companies are not funded to deliver these schemes in a carbon neutral or negative way.

Ofwat applied additional stretch to our proposed PCL for water, as performance was forecast to deteriorate by 0.96% between 2024-25 and 2029-30. This is due to forecast electricity imports exceeding forecast emissions reductions. As no funding is awarded to achieve this stretch, we consider this additional stretch beyond our already stretching Business Plan forecasts to be unachievable. We request Ofwat to reconsider the principle that performance from totex should not deteriorate or allow increases in emissions, and so reverse the stretch challenge applied to water.

The additional stretch, set by Ofwat to 2.5%, is associated with the base cost adjustment intended to enable companies to invest in low carbon technologies and infrastructure, critical to the reduction of greenhouse gas (GHG) emissions from vehicles and heating, for which funding of £10m has been allowed.

A key part of our strategy is to invest in Electric Vehicles (EVs) to reduce our operating emissions. These vehicles have higher capex (and totex) costs over their lifetime, and we note that Ofgem allowed additional capex for Electric Vehicles at RIIO-2. [78] Without EVs, there is very limited benefit to EV chargers. Ofwat has not allowed additional totex for these EVs. [79] Without the EV funding, we cannot invest in these vehicles and so cannot meet our emissions targets. We are representing separately on this funding in our base cost adjustment response.

If our funding request for low carbon vehicles and heating, set out in our Net Zero Challenge fund is met, we are happy to accept the additional stretch percentage applied in the Draft Determination. In the event our funding request is not met, our emissions targets should be adjusted accordingly. Specifically, this would mean reversing the 2.5% challenge Ofwat has applied or only applying a stretch associated with low carbon heating. We set out our plans, dependant on the outcome of our representation, in our base cost adjustment response.

A linear profile for the PC target is inappropriate because the delivery of schemes to replace existing vehicles and heating systems with low carbon alternatives should be aligned with the end of life of existing assets. Our Net Zero challenge fund bid set our delivery profile in line with existing asset age and our view of deliverability. We request that these profiles are used to set the performance commitment target, specifically CW21_2, CW21_3, CWW22_9, CWW22_10 for low carbon heating and CW21_1 and CWW22_8 for transition to EV's - if fully funded.

Finally, we are resubmitting our historical and forecast greenhouse gas emissions (OUT 1 to OUT 5) within our Draft Determination response, with explanatory commentary provided. We

[78] For example Figure 94 in Cadent Gas's Final Determination shows Electric Vehicle allowances of £5.7m, £3.8m, £3.9m and £2.8m for each of its four regions. Figure 95 explains that unit costs specific for EVs were used to set these allowances.
[79] We note an allowance has been included for heat pumps and EV chargers, but not for the EVs themselves.

would expect that if the PCL challenge were adjusted, then the base cost adjustment granted would be adjusted consistently.

In summary, we are proposing that:

- Our revised historical and forecast emissions are accepted;
- Our funding representations are accepted, in which case we can accept the 2.5% stretch to the PCL – against the correct baseline; or
- If our funding representations are not accepted, no additional stretch is applied and Ofwat use our forecast emissions as our PCL.

Figure 68 shows our proposed PCLS in our April 2024 and updated business plans submissions.

Figure *68 – Operational Greenhouse Gases Performance Commitment forecast*

	Baseline	PR24 Draft Determination PCLs				
Plan version (Water)	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
April 2024	156k	156k	157k	157k	157k	158k
Draft Determination response	180k	180k	180k	181k	181k	181k
Plan version (Waste)	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
April 2024	377k	379k	377k	374k	371k	368k
Draft Determination response	395k	395k	391k	386k	381k	373k

River Water Quality

The Draft Determination sets out PCL targets that are aligned to the forecast that we submitted as part of our April 2024 update to the Business Plan. We agree with the decision in the Draft Determination to make this a reputational Performance Commitment.

We are concerned about the deliverability of the AMP8 enhancement programme and welcome the inclusion of a Delivery Mechanism in the Draft Determination. In our representation, we provide an updated view of the cost of the WINEP phosphorous programme and forecast that the projects will complete during AMP9. This means there is a delay to the Performance Commitment benefits that will be achieved for this Performance Commitment.

Figure 69 shows the impact of deliverability of the phosphorus programme on the PCL targets in the Draft Determination. We request that Ofwat considers the deliverability impact when setting the PCLs in the final determination.

Figure 69 - Reduction in phosphorus as a percentage of load discharged from treatment works in 2020

	BASELINE	PR24 Draft Determination PCLs				
Plan version	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
April 2024	0.04	0.05	0.05	0.08	0.17	0.21
Draft Determination response	0.04	0.05	0.05	0.08	0.14	0.19

Bathing Water quality

The Draft Determination for this Performance Commitment, our October 2023 Business Plan and the April 2024 update were based on the Frensham Great Pond and Wolvercote Mill Stream inland bathing waters. More recently, Wallingford Beach has been designated a bathing water in our operating area. In our representation on the Draft Determination, we have included new schemes arising from the recent designation of Wallingford Beach as a bathing water.

We have assumed that this Wallingford Beach will be officially classified as 'poor' in 2024-25 based on shadow sampling for 2023. We have further assumed that the new schemes will contribute to achievement of 'satisfactory' status in the 2029 bathing season.

Figure 70 shows the how the inclusion of Wallingford Beach as a bathing water changes our forecast performance for this PC. We request that Ofwat sets the PCLs in the final determination based on this revised forecast.

Figure 70 - Bathing Water Quality Performance Commitment forecast

	BASELINE	PR24 Draft Determination PCLs				
Plan version	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
April 2024	50.00%	50.00%	50.00%	50.00%	50.00%	66.50%
Draft Determination response	33.33%	33.33%	33.33%	33.33%	33.33%	55.3%

Storm Overflows

The Draft Determination intervenes on the forecast that we submitted as part of our April 2024 update to the Business Plan by removing our assumption on monitor availability, setting the baseline for 2025/26 at 20 spills per overflow and assuming additional benefits from base expenditure.

Following our programme of work to verify all overflow locations and to reconcile with permits for CSOs, we have more certainty on the number of overflows that are operational in our networks and on our sites. This has enabled us to forecast performance more accurately in this response to the Draft Determination.

The forecast performance for our Draft Determination response (see Figure 71) accounts for benefits through the Thames Tideway Tunnel project and the AMP8 programmes of work at sewage treatment works and through the WINEP storm overflows programme. Our modelling

assumes average weather each year. No allowance for Climate Change has been considered in the spill number up to 2035, this is considered not to be material to the numbers quoted.

Figure 71 - Storm Overflows Performance Commitment forecast

Plan version	2025/26	2026/27	2027/28	2028/29	2029/30
April 2024	22.57	21.37	21.04	19.92	17.21
Draft Determination	20.00	18.55	17.10	15.65	14.21
Draft Determination response	24.31	21.27	19.95	19.77	17.07

Mains Repairs

We have no material comments on the Draft Determination regarding Mains Repairs. Our overarching comments on updating the ODI rates for 2023/24 and applying caps and collars for all PCs apply.

Unplanned Outages

We have no material comments on the Draft Determination regarding Unplanned Outage. Our overarching comments on updating the ODI rates for 2023/24 and applying caps and collars for all PCs apply.

Compliance Risk Index

We have no material comments on the Draft Determination regarding Compliance Risk Index. Our overarching comments on updating the ODI rates for 2023/24 and applying caps and collars for all PCs apply.

20. Collaborative Streetworks Bespoke PC

We are pleased Ofwat has proposed to progress our Streetworks Collaboration bespoke PC. We are broadly supportive of Ofwat's proposed changes and set out the detail requested in the 'TMS-DD-054: Bespoke Streetworks Performance Commitment technical appendix' and accompany PC definition.

We have aligned our proposed PCL to Ofwat's proposal. We have accepted Ofwat's methodology for calculating ODI rates using the number of collaborators. However, we present additional evidence from ourselves and the Greater London Authority on the number of collaborators involved in projects and present two alternative ODI rates based on this information.

It's everyone's water