

# TMS56 PR24 Data Table Commentary - Outcomes

OUT1 - Overall outcome performance - Common performance commitments

OUT2 - Outcome performance from base expenditure - Common performance commitments

OUT3 - Outcome performance from enhancement expenditure - Performance commitments

OUT4 - Underlying calculations for common performance commitments - water and retail

OUT5 - Underlying calculations for common performance commitments - wastewater

This section provides the commentary for the OUT1, OUT2, OUT3, OUT4 and OUT5 tables. To avoid large sections of duplicate text, it is intended to be read in conjunction with our 'TMS07 Our AMP8 Water Outcomes Delivery Strategy' (Water ODS), 'TMS08 Our AMP8 Wastewater Outcomes Delivery Strategy' (Wastewater ODS), and 'TMS45 Our AMP8 Carbon Reduction Delivery Strategy & Net Zero Bid documents' (Carbon Strategy document).

Data Whole Table or Table Individual Line/s	Commentary
OUT1 OUT2 OUT3 OUT3 OUT4Water supply interruptions OUT1.1 	<ul> <li>Historical and current performance</li> <li>For 2016-17 to 2021-22, OUT4 lines 1 to 3 have been populated with data that is consistent with the latest historical performance dataset <u>Historical performance trends for PR24 V2.0 - Ofwat</u>. The previous years are left blank.</li> <li>For 2022-23, lines OUT4.2 and OUT4.3 are populated using the source file used to report performance for this PC at AR23. Line 4.1 is populated from Table SUP1B.</li> <li>Large scale events have had a major impact on performance. These low probability, high consequence failures have occurred both on our trunk main network and at water production sites, with the effect compounded by an inconsistent response.</li> <li>Forecast performance</li> <li>We have forecast performance of 00:10:30 HH:MM:SS in 2024-25 and then an improvement to 00:09:00 HH:MM:SS in 2024-35.</li> <li>We aim to deliver an immediate and sustained performance improvement in AMP8. While we have included an annual allowance for large events in our proposed targets, we recognise the need for consistency of response to, and recovery from, any failures. We acknowledge that leading companies will continue to improve, but we believe our forecast is realistically stretching and reflects the scale of the activities and investment needed to consistently turn around our performance given our large, complex and aging network.</li> </ul>

		Our target improvement recognises the challenges associated with operating and managing a network across a region where there is major infrastructure and greater road congestion. For 2023-24 to 2029-30, the data source for line OUT4.1 is Table Sup1B, line SUPB1B.11. For the years 2030-31 to 2034-35, the
		properties have been uplifted at the same rate as 2028-29 to 2029- 30.
		For 2023-24 to 2034-35, we have assumed that the total number of properties whose supply was interrupted >= 3 hours (LINE OUT4.2) will be at the AR22 level when the outcome performance was similar to our end of AMP7 forecast. This assumption enables us to calculate line OUT4.3 based on our outcome performance forecast.
		Performance from base and enhancement expenditure All of the improvements are allocated to base expenditure and therefore line OUT2.1 is identical to line OUT1.1 and OUT3.1 shows nil.
		Additional information in Water ODS The Water ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2 OUT3	Compliance Risk Index (CRI) OUT1.2 OUT2.2 OUT3.2	Historical and current performance For 2017-18 to 2021-22, line OUT1.2 has been populated with data from the latest historical performance dataset <u>Historical</u> <u>performance trends for PR24 V2.0 - Ofwat</u> . The previous years are left blank (which also applies to line OUT2.2). For 2022-23, performance is 10.96 as per AR23, Table 6C, line 6C.23.
	To be read in conjunction with Water ODS. See CRI content within the section 'Outcome 1: safe, high quality drinking water'.	The 2022-23 performance is much higher than historical and forecast performance. This was due to coliform detections, at two of our large water treatment works serving London. This performance highlights the need to address water ingress at our largest and most complex water treatment sites, and we have already started a programme to remove some of these assets from operation to allow internal inspection and remedial activities. The insight from this programme has enabled us to develop a structured approach to improve performance, which has been shared with the DWI to ensure we mitigate future risks using a systematic and prioritised approach.
		Forecast performance We have forecast performance of 1.75 in 2024-25 due to the plans we have in place to significantly improve performance compared with 2022-23. Further improvements are forecast in AMP8 and AMP9 based on our plans.
		Performance from base and enhancement expenditure

		All of the improvements are allocated to base expenditure and therefore line OUT2.2 is identical to line OUT1.2 and OUT3.2 shows nil. Additional information in Water ODS The Water ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that
OUT1 OUT2 OUT3 OUT4	OUT2contacts aboutOUT3water quality	are linked to the performance outcome. Historical and current performance This PC is based on information provided to DWI on customer contacts. DWI released an Information letter in 2022 to revise reporting of contacts to take account of changes in communications, especially the increased usage of social media. We have now implemented changes to our systems to meet the new information requirement. We did not previously collect information in line with the new methodology and therefore the data for Thames Water is blank in the latest historical performance dataset <u>Historical performance</u>
	To be read in conjunction with Water ODS. See the Customer Contacts about Water Quality	trends for PR24 V2.0 - Ofwat. This means the years 2011-12 to 2021-22 are left blank in lines OUT4.7 to 4.9 (and this is also the case for line OUT2.3). Some companies have, however, been able to back cast their performance. Using this information and our own data for 2022-23 we have estimated historical figures, for ourselves and other
	content within the section 'Outcome 1: safe, high quality drinking water'.	companies, to show past performance on a comparable basis to our targets for AMP8. This analysis is included in the Water ODS. For 2022-23, performance is 0.42 as per our response to Ofwat's Water Quality Contacts - query for companies, that was issued to Regulatory Directors on 29 August 2023.
		Forecast performance Based on the current definition, we are outperforming our AMP6 bespoke PC target and our performance is better than the industry upper quartile (UQ). We have been improving at a faster rate than the rest of the industry and in 2021-22 we were the second-best performer.
		For AMP8, we anticipate that the target using the PR24 guidelines will be set based on industry UQ. We are forecasting that we will maintain good performance and be able to continue outperforming the new UQ target. We have forecast performance of 0.45 for the period 2023-24 to 2029-30 and then an improvement to 0.40 by the end of 2034-35.
		Performance from base and enhancement expenditure All of our activities related to this PC are allocated to base expenditure and therefore line OUT2.3 is identical to line OUT1.3 and OUT3.3 shows nil.

OUT2 OUT3 OUT3 OU OU OU OU OU OU OU OU OU OU OU OU OU	ernal sewer oding JT1.4 JT2.4 JT3.4 JT5.1 to 5.7 be read in njunction h stewater DS. See the ernal Sewer Noding ntent within e section utcome 1: h wer flooding	Additional information in Water ODS The Water ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that a description of our past, current and future interventions that are linked to the performance outcome. Sewer connections (line OUT5.1) for the years 2016-17 to 2021-22, the data is as per the latest historical performance dataset <u>Historical performance trends for</u> <u>PR24 V2.0 - Ofwat</u> . For 2022-23 to 2029-30, the data source is Table SUP1A, line SUP1A.16. For the years 2030-31 to 2034-35, the number of sewer connections has been uplifted by the forecast annual increase over the period 2028-29 to 2029-30. Aumber of internal sewer flooding incidents in AMP6, shadow reporting commenced in 2016-17 using puidelines as per the current PC definition. Prior to 2016-17, our nethodology was different to the current PC definition and so we have not completed lines OUT5.2 and OUT5.4 for the period 2011- 2 to 2015-16. For 2016-17 to 2019-20, we have populated the lines based on the
wa	ste away h fely'.	<ul> <li>istorical performance dataset <u>Historical performance trends for PR24 V2.0 - Ofwat</u> and supporting information used for our annual eturns.</li> <li>The 2016-17 overall performance is 1,617 internal sewer flooding incidents. In our 2016-17 shadow reporting commentary, we did not state the number of reactively identified internal sewer flooding incidents. Therefore, we have entered 1,617 incidents as proactively reported and nil as reactively identified.</li> <li>The 2017-18 overall performance is 1,168 internal sewer flooding incidents. In our 2017-18 shadow reporting commentary we identified 1.8% of incidents as reactively identified. This equates to 1.8% * 1,168 = 21. Therefore, we have entered 1,147 as proactively reported.</li> <li>The 2018-19 overall performance is 1,239 internal sewer flooding incidents. In our 2018-19 shadow reporting commentary we identified 1.5% of incidents as reactively identified. This equates to 1.5% * 1,239 = 19. Therefore, we have entered 1,220 as proactively reported.</li> </ul>

<ul> <li>For 2020-21 to 2022-23, we have populated the lines using the information reported in Table 3G of our annual returns.</li> <li>The 2020-21 performance is 1,281 incidents proactively reported and 111 incidents reactively identified (8.0% of total).</li> <li>The 2021-22 performance is 1,972 incidents proactively reported and 131 incidents reactively identified (6.2% of total).</li> <li>The 2022-23 performance is 1,092 incidents proactively reported and 78 incidents reactively identified (6.7% of total).</li> <li>For 2023-24 to 2034-35, we have assumed that the proportion of</li> </ul>
AR23.
For 2023-24 to 2024-25, we have populated the lines based on our internal sewer flooding forecasts from our Operational teams and additional management judgement due to the increase in sewer connections that is forecast in Table SUP1A.
• The 2023-24 forecast is for 1,164 internal sewer flooding incidents and we have assumed 1,086 incidents proactively reported and 78 incidents reactively identified.
<ul> <li>The 2024-25 forecast is for 1,159 internal sewer flooding incidents and we have assumed 1,082 incidents proactively reported and 77 incidents reactively identified.</li> </ul>
In AMP8, we will embed additional initiatives that will reduce the number of sewer flooding incidents that result from other causes flooding. Our AMP8 plan also includes a programme of sewer flooding resilience to reduce the risk of hydraulic flooding. This is expected to provide a benefit reduction of five internal hydraulic incidents by the end of AMP8.
<ul> <li>Our annual forecasts for AMP8 are as follows:</li> <li>2025-26 forecast is for 1,154 incidents. We forecast that 1,077 incidents will be proactively reported and 77 incidents reactively identified.</li> </ul>
<ul> <li>2026-27 forecast is for 1,106 incidents. We forecast that 1,032 incidents will be proactively reported and 74 incidents reactively identified.</li> <li>2027-28 forecast is for 1,082 incidents. We forecast that 1,010</li> </ul>
<ul> <li>incidents will be proactively reported and 72 incidents reactively identified.</li> <li>2028-29 forecast is for 1,061 incidents. We forecast that 990</li> </ul>
<ul> <li>incidents will be proactively reported and 71 incidents reactively identified.</li> <li>2029-30 forecast is for 1,041 incidents. We forecast that 972 incidents will be proactively reported and 69 incidents reactively identified.</li> </ul>
For 2030-31 to 2034-35, we have assumed that we will reduce internal sewer flooding by 20 incidents per year through capital

		maintenance activities. This is the same level of improvement that is expected between 2028-29 and 2029-30.
		Performance from base and enhancement expenditure In Information Notice 23/07 Assessing the influence of enhancement expenditure on historical performance trends for PR24 - Ofwat, it is confirmed that there is no requirement to provide historical performance trend accounting for influence of enhancement expenditure for internal sewer flooding in the PR24 submission. Also, at PR19, no enhancement expenditure was assumed for sewer flooding. As such, for the period 2015-16 to 2024-25, OUT2.4 shows identical performance to OUT1.4 and it follows that OUT3.4 will show 0.00 until 2024-25.
		For 2025-26 onwards, we have attributed the forecast improvement from the AMP8 sewer flooding resilience improvement to enhancement and this results in a 0.01 difference between OUT1.4 and OUT2.4 in the years 2027-28 onwards, as shown in Table OUT3.4.
		Additional information in Wastewater ODS The Wastewater ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2 OUT3 OUT5	External sewer flooding OUT1.5 OUT2.5 OUT3.5	<u>Sewer connections (line OUT5.1)</u> For the years 2016-17 to 2021-22, the data is as per the latest historical performance dataset <u>Historical performance trends for</u> <u>PR24 V2.0 - Ofwat</u> .
	OUT5.8 to 5.14	For 2022-23 to 2029-30, the data source is Table SUP1A, line SUP1A.16.
	To be read in conjunction with Wastewater	For the years 2030-31 to 2034-35, the number of sewer connections has been uplifted by the forecast annual increase over the period 2028-29 to 2029-30.
	ODS. See the External Sewer Flooding content within the section 'Outcome 1: Preventing sewer flooding and taking	Number of external sewer flooding incidents For external sewer flooding, we undertook a review and assurance exercise to assess our historical performance. We have used the results of this review to report performance between 2016-17 and 2022-23. Although this review provides an estimate of the number of external sewer flooding incidents per year, it does not report back on whether incidents were proactively reported or reactively identified.
	waste away safely'.	<ul> <li>Reactively identified vs proactively reported splits for external sewer flooding are reported using the shadow reporting commentary for 2016-17 to 2019-20.</li> <li>In our 2016-17 shadow reporting commentary we did not state the number of reactively identified sewer flooding incidents.</li> </ul>

<ul> <li>Therefore, we have entered 100% of incidents (15,599) as proactively reported and nil as reactively identified.</li> <li>In our 2017-18 shadow reporting commentary we identified 1.8% of incidents as reactively identified. Therefore, we have entered 98.2% of incidents (13,671) as proactively reported and 1.2% (250) as reactively identified.</li> <li>In our 2018-19 shadow reporting commentary we identified 1.5% of incidents as reactively identified. Therefore, we have entered 98.5% of incidents (12,493) as proactively reported and 1.5% (190) as reactively identified.</li> <li>In our 2019-20 shadow reporting commentary we identified 2.85% of incidents as reactively identified. Therefore, we have entered 97.15% of incidents (16,342) as proactively reported and 2.85% (479) as reactively identified.</li> </ul>
<ul> <li>For 2020-21 to 2022-23, we have populated the lines using the information reported in Table 3G of our annual returns for internal sewer flooding.</li> <li>The 2020-21 performance is 1,281 internal incidents proactively reported and 111 internal incidents reactively identified. So, for external flooding we have used the same ratio, which results in 20,917 incidents proactively reported and 1,812 incidents reactively identified.</li> <li>The 2021-22 performance is 1,972 incidents proactively reported and 1,812 incidents reactively identified.</li> <li>The 2021-22 performance is 1,972 incidents proactively reported and 1,811 incidents reactively identified. So, for external flooding we have used the same ratio, which results in 16,476 incidents proactively reported and 1,094 incidents reactively identified.</li> <li>The 2022-23 performance is 1,092 incidents proactively reported and 78 incidents reactively identified. So, for external flooding we have used the same ratio, which results in 10,551 incidents proactively reported and 78 incidents reactively identified. So, for external flooding we have used the same ratio, which results in 10,551 incidents proactively reported and 754 incidents reactively identified.</li> </ul>
<ul> <li>For 2023-24 to 2034-35, we have assumed that the proportion of incidents that will be reactively identified will be in the same proportion as internal sewer flooding incidents in 2022-23.</li> <li>For 2023-24 to 2024-25, we have forecast that the total number of external sewer flooding incidents per year will be 17,201. This is the average of the first three years of AMP7.</li> <li>The 2023-24 forecast is for 16,054 external sewer flooding incidents proactively reported and 1,147 incidents reactively identified.</li> <li>The 2024-25 forecast is as per 2023-24.</li> </ul> In AMP8, we will embed additional initiatives that will reduce the number of sewer flooding incidents that result from other causes flooding. Our AMP8 plan also includes a programme of sewer flooding. This is expected to provide a benefit reduction of 11 external hydraulic incidents by the end of AMP8.

		Our annual forecasts for AMP8 are as follows:
		<ul> <li>2025-26 forecast is for 16,742 incidents, with 15,626 incidents proactively reported and 1,116 incidents reactively identified.</li> <li>2026-27 forecast is for 16,428 incidents, with 15,333 incidents proactively reported and 1,095 incidents reactively identified.</li> <li>2027-28 forecast is for 16,284 incidents, with 15,198 incidents proactively reported and 1,086 incidents reactively identified.</li> <li>2028-29 forecast is for 16,147 incidents, with 15,071 incidents proactively reported and 1,076 incidents reactively identified.</li> <li>2029-30 forecast is for 16,021 incidents, with 14,959 incidents proactively reported and 1,062 incidents reactively identified.</li> </ul>
		For 2030-31 to 2034-35, we have assumed that we will reduce external sewer flooding by 126 incidents per year through capital maintenance activities. This is the same level of improvement that is expected between 2028-29 and 2029-30. This is split 118 incidents proactively reported and 8 incidents proactively identified.
		Performance from base and enhancement expenditure In Information Notice 23/07 Assessing the influence of enhancement expenditure on historical performance trends for PR24 - Ofwat, it is confirmed that there is no requirement to provide historical performance trend accounting for influence of enhancement expenditure for sewer flooding in the PR24 submission. Also, at PR19, no enhancement expenditure was assumed for sewer flooding. As such, for the period 2015-16 to 2024-25, OUT2.5 shows identical performance to OUT1.5 and it follows that OUT3.5 will show 0.00 until 2024-25.
		For 2025-26 onwards, we have attributed the forecast improvement from the AMP8 sewer flooding resilience improvement to enhancement and this results in a 0.01 difference between OUT1.5 and OUT2.5 in the years 2027-28 and 2028-29 and a 0.02 difference thereafter, as shown in Table OUT3.5.
		Additional information in Wastewater ODS The Wastewater ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2 OUT3 OUT4 OUT5	Biodiversity OUT1.6 OUT2.6 OUT3.6 OUT4.12 to 4.23	This is a new common PC for AMP8. In table OUT9, we include the results of our GIS analysis of land owned by Thames Water. We have 65.644 km2 (OUT9.1) of company owned habitat and of this 7.794km2 is open habitat (OUT9.15). We have chosen 9 operational sites to survey, for which total landholding equates to 1.13km2 of open habitat. These sites have been chosen based on having enough space to create a valuable nature recovery habitat,

OUT4.110 to 4.120 OUT5.15 to 5.26	the sites are in close proximity to other wildlife sites, therefore creating good connectivity, and are within a designated Local Nature Recovery plan.
To be read in conjunction with Water ODS. See the	<ul> <li>OUT4.12, is populated using the water sites selected, which are:</li> <li>Speen (0.13km2 and first survey in 2024-25)</li> <li>Grimsbury (0.17km2 and first survey in 2026-27)</li> <li>OUT5.15 is populated using the wastewater sites selected, which</li> </ul>
Biodiversity content within the section 'Outcome 4: A positive impact on the community'. To be read in	<ul> <li>are:</li> <li>Godalming (0.11km2 and first survey in 2024-25)</li> <li>Beddington (0.28km2 and first survey in 2024-25)</li> <li>Bracknell (0.14km2 and first survey in 2025-26)</li> <li>Fiddlers Hamlet (0.06km2 and first survey in 2025-26)</li> <li>Aylesbury (0.05km2 and first survey in 2025-26)</li> <li>Bishops Stortford (0.09km2 and first survey in 2026-27)</li> <li>Tring (0.10km2 and first survey in 2026-27)</li> </ul>
conjunction with Waste ODS. See the Biodiversity content within the section 'Outcome 3: A positive impact on the community'.	All surveys repeat every four years. For each site, we have calculated the baseline and the actual biodiversity units and these values are entered into OUT4.13 to 4.15 and OUT5.16 to 5.18 (baseline units) and OUT4.17 to 4.19 and OUT5.20 to 5.22 (actual units). For both water and wastewater, the vast majority of the unit is for 'area', a small proportion is 'hedgerow' and there are nil 'river' units. We have completed the table using Ofwat's worked example (August 2023) as a guide.
	For water a change in biodiversity units of 8.47 is forecast in 2028-29, increasing to 27.12 by 2030-31. The water supply area is reported in Line 6C.22 of the annual return and we have entered the AR23 value of 8,007.99km2 (Line OUT4.22) and assumed there will be no changes to our area through to 2034-35. This results in 0.11 Biodiversity units for area land served (per 100km2, water) in 2028-29, increasing to 0.34 in 2030-31 onwards (OUT4.23)
	For wastewater a change in biodiversity units of 61.38 is forecast in 2028-29, increasing to 94.10 by 2030-31. The sewerage supply area has been calculated using GIS resulting in a value of 13,754.45km2 (Line OUT5.25). We have entered this and assumed there will be no changes to our area through to 2034-35. This results in 0.45 Biodiversity units for area land served (per 100km2, wastewater) in 2028-29, increasing to 0.68 in 2030-31 onwards (OUT5.26).
	For the PC, the workings for water and wastewater are combined and the results are shown in OUT4.120 and OUT1.6. This results in 0.32 Biodiversity units for area land served (per 100km2, water and wastewater areas summed together) in 2028-29, increasing to 0.56 in 2030-31 onwards (Line OUT4.120).

	<ul> <li>Note that we are yet to finalise our long-term plan and targets to 2050 for biodiversity. Through our survey work starting in 2024 this will be developed through AMP8 and in conjunction with our charity/environmental partners.</li> <li>Performance from base and enhancement expenditure All of our activities related to this PC are allocated to base expenditure and therefore line OUT2.6 is identical to line OUT1.6 and OUT3.6 shows nil.</li> <li>Additional information in Water ODS The Water ODS and the Wastewater ODS contain additional information on our approach to Biodiversity.</li> </ul>
OUT1 OUT2 OUT3Operational greenhouse gas emission OUT4OUT3 OUT4greenhouse gas emission (water) OUT1.7 OUT2.7 OUT2.7 OUT3.7 OUT4.24 to 4.31	This is a new common PC for AMP8 and Ofwat has selected 2021- 22 emissions to be the baseline for the common performance commitment. Using Ofwat's annual performance reporting guidance for 2022-23 our operational emissions for 2021-22 were 157,745.99 tonnes of CO2e. For 2022-23, our net operational GHG emissions were 159094.98 tonnes of CO2e. We have used the same method to report annual emissions back to 2018-19.
To be read in conjunction with the Carbon	Our forecast assumes that in 2029-30, we will have reduced net operational GHG emissions to 152,556.33 tonnes of CO2e followed by a larger reduction in AMP9 resulting in 2034-35 performance of 109,467.81 tonnes of CO2e.
Strategy document.	For the period 2017-18 to 2021-22, line OUT4.25 is the pre-MLE (Maximum Likelihood Estimation) distribution input that was calculated in the water balances that have also been used to derive the annual average leakage values and annual PCC values in lines OUT4.33 and OUT4.37.
	For 2022-23 to 2029-30, the distribution input is copied from Table CW5.
	Performance from base and enhancement expenditure All of the improvements are allocated to base expenditure and therefore line OUT2.7 is identical to line OUT1.7 and OUT3.7 shows nil.
	Additional information in Carbon Strategy document The Net Zero document contains an analysis of our historical performance and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 Operational	This is a new common PC for AMP8 and Ofwat has selected 2021-
OUT2 greenhouse OUT3 gas emission	22 emissions to be the baseline for the common performance commitment. Using Ofwat's annual performance reporting
OUT5 (wastewater)	

	OUT1.8	388,940.13 tonnes of CO2e. For 2022-23, our net operational
	OUT2.8 OUT3.8	GHG emissions were 372,829 tonnes of CO2e.
	OUT5.27 to 5.33	We have used the same method to report annual emissions back to 2018-19.
	To be read in conjunction with the	Our forecast assumes that in 2029-30, we will have reduced net operational GHG emissions to 359,506.51 tonnes of CO2e.
	Carbon Strategy document.	Our understanding of the scale and source of operational emissions is continually evolving. Looking ahead, there is an anticipated increase in operational baseline emissions, which we have assumed will be applied at the end of AMP8 for wastewater process emissions. A study for DEFRA lead by Jacobs, has concluded that the emission factor for N2O from secondary treatment should adopt 2019 IPCC assumption as these have historically been underestimated. This will significantly increase the scale of the net zero challenge and explains the step change in the Line OUT5.27 between 2029-30 and 2030-31.
		For 2018-19 to 2021-22, the volume of wastewater receiving treatment (Line OUT5.28) is from annual returns, Table 7C line 13. For 2022-23 to 29-30, this information is copied from Table CWW6.
		Performance from base and enhancement expenditure All of the improvements are allocated to base expenditure and therefore line OUT2.8 is identical to line OUT1.8 and OUT3.8 shows nil.
		Additional information in Carbon Strategy document The Net Zero document contains an analysis of our historical performance and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2 OUT3 OUT4	Leakage OUT1.9 OUT1.35 to 1.36 OUT2.9	Historical performance (historical reporting methodologies) For 2011-12 to 2019-20, OUT1 line 35 has been populated with data from the latest historical performance dataset <u>Historical</u> <u>performance trends for PR24 V2.0 - Ofwat</u> .
	OUT2.33 to 2.34 OUT3.9 OUT3.34 to 3.35 OUT4.32 to	Historical and current performance (PR24 guidelines) For 2017-18 to 2021-22, OUT4 line 33 has been populated with leakage data from the latest historical performance dataset <u>Historical performance trends for PR24 V2.0 - Ofwat</u> . The previous years are left blank.
	4.35	For 2022-23, annual average performance is 619.7 MI/d as per AR23.
	To be read in conjunction with Water ODS. See the Leakage content within	Forecast performance In response to the summer drought of 2022, and resulting increase in leakage, we implemented a substantial and ambitious Leakage Recovery Plan. This will continue through the remainder of AMP7 and see benefits as we enter AMP8. Annual average

the section 'Outcome 3: Fix leaks and	
ensure there is enough water in the future'.	• Based on the Leakage Recovery Plan, our annual average leakage forecast for 2023-24 is 587.3 Ml/d. For 2024-25 the
	For 2030-31 to 2034-25, we have assigned the benefits from the Advanced DMA interventions and leakage innovation workstreams in the WRMP to capital maintenance. Therefore, additional leakage reduction of 1.2 MI/d per year has been used in the forecast for this period.
	Performance from base and enhancement expenditure In response to Information Notice 23/07 issued in July 2023, our Water ODS details the impact of historical enhancement spend on performance. This, along with the AMP8 and AMP9 allocations is summarised below to show the workings of Tables OUT1, OUT2 and OUT3. Due to the three year average PC and the benefits of enhancement prior to AMP8, the check in OUT3 against Table CW15 shows 'FALSE'.

PI	R24 methodology (lines OUT1.36, 2.34, 3.35)
•	2017-18: 38.6 MI/d of enhancement benefit from Water ODS
	Table 25 (this is the value in OUT3, OUT1 = actual
	performance and OUT2 is actual performance plus 38.6 Ml/d)
•	2018-19: 45.4 MI/d of enhancement benefit from Water ODS
	Table 25 (this is the value in OUT3, OUT1 = actual
	performance and OUT2 is actual performance plus 45.4 Ml/d)
•	2019-20: 59 MI/d of enhancement benefit from Water ODS
	Table 25 (this is the value in OUT3, OUT1 = $actual$
	performance and OUT2 is actual performance plus 59 MI/d)
	2020-21: 59 MI/d of enhancement benefit from Water ODS
•	
	Table 25 and 6.8 MI/d of benefit from Water ODS Table 26
	(the sum of 65.8 MI/d is the value in OUT3, OUT1 = actual
	performance and OUT2 is actual performance plus 65.8 Ml/d)
•	2021-22: 59 MI/d of enhancement benefit from Water ODS
	Table 25 and 13.7 MI/d of benefit from Water ODS Table 26
	(the sum of 72.7 MI/d is the value in OUT3, OUT1 = actual
	performance and OUT2 is actual performance plus 72.7 Ml/d)
•	2022-23: 59 MI/d of enhancement benefit from Water ODS
	Table 25 and 20.6 MI/d of benefit from Water ODS Table 26
	(the sum of 79.5 MI/d is the value in OUT3, OUT1 = actual
	performance and OUT2 is actual performance plus 79.5 MI/d)
•	2023-24: 59 MI/d of enhancement benefit from Water ODS
	Table 25 and 27.4 MI/d of benefit from Water ODS Table 26
	(the sum of 86.4 MI/d is the value in OUT3, OUT1 = actual
	performance and OUT2 is actual performance plus 86.4 Ml/d)
•	2024-25: 59 MI/d of enhancement benefit from Water ODS
	Table 25 and 36.9 MI/d of benefit from Water ODS Table 26
	(the sum of 95.9 $MI/d$ is the value in OUT3, OUT1 = actual
	performance and OUT2 is actual performance plus 95.9 Ml/d)
•	2025-26: 95.9 MI/d from AMP6 and AMP7 plus 10.1 MI/d
	from AMP8 enhancement (the sum of 106.0 MI/d is the value
	in OUT3, OUT1 = actual performance and OUT2 is actual performance plus 106.0 MI/d)
•	2026-27: 95.9 MI/d from AMP6 and AMP7 plus 17.4 MI/d
	from AMP8 enhancement (the sum of 113.3 MI/d is the value
	in OUT3, OUT1 = actual performance and OUT2 is actual
	performance plus 113.3 MI/d)
•	2027-28: 95.9 MI/d from AMP6 and AMP7 plus 24.8 MI/d
	from AMP8 enhancement (the sum of 120.7 MI/d is the value
	in OUT3, OUT1 = actual performance and OUT2 is actual
	performance plus 120.7 MI/d)
•	2028-29: 95.9 MI/d from AMP6 and AMP7 plus 32.1 MI/d
	from AMP8 enhancement (the sum of 128.0 MI/d is the value
	in OUT3, OUT1 = actual performance and OUT2 is actual
	performance plus 128.0 MI/d)
•	2029-30: 95.9 MI/d from AMP6 and AMP7 plus 39.4 MI/d
	from AMP8 enhancement (the sum of 135.3 MI/d is the value
	in OUT3, OUT1 = actual performance and OUT2 is actual
	performance plus 135.3 MI/d)
•	2030-31 to 2034-35, OUT3 remains at 135.3 MI/d, OUT2 is
	actual performance plus 135.3 MI/d, actual performance in

		<ul> <li>OUT1 reduces by 1.2 Ml/d per year due to the WRMP activities that are assumed to be funded by capital maintenance.</li> <li>PR24 methodology (lines OUT1.9, 2.9, 3.9)</li> <li>In lines OUT1.9, OUT2.9 and OUT3.9, the impact of the above can be seen in terms of the leakage performance commitment. By the end of AMP8, our plan is to reduce leakage by 37.1% (OUT1.9), against the baseline. Of this reduction, 18.1% is attributed to base (OUT2.9) and 19.0% is attributed to enhancement (OUT3.9).</li> <li>Historical reporting methodology (lines OUT1.35, 2.33, 3.34)</li> <li>2011-12 to 2014-15: No benefit from enhancement (OUT1 = actual performance, OUT2 equals OUT1 and OUT3 is nil)</li> <li>2015-16: 16.3 Ml/d of enhancement benefit from Water ODS Table 25 (this is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus 16.3 Ml/d)</li> <li>2016-17: 28.9 Ml/d of enhancement benefit from Water ODS Table 25 (this is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus 28.9 Ml/d)</li> <li>2017-18: 38.6 Ml/d of enhancement benefit from Water ODS Table 25 (this is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus 38.6 Ml/d)</li> <li>2018-19: 45.4 Ml/d of enhancement benefit from Water ODS Table 25 (this is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus 45.4 Ml/d)</li> <li>2018-19: 45.4 Ml/d of enhancement benefit from Water ODS Table 25 (this is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus 45.4 Ml/d)</li> <li>2019-20: 59 Ml/d of enhancement benefit from Water ODS Table 25 (this is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus 5.4 Ml/d)</li> <li>2019-20: 59 Ml/d of enhancement benefit from Water ODS Table 25 (this is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus 5.4 Ml/d)</li> <li>2019-20: 59 Ml/d of enhancement benefit from Water ODS Table 25 (this is the value in OUT3, OUT1 = actual performance and</li></ul>
		The Water ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2 OUT3 OUT4	Per capita consumption OUT1.10 OUT1.37 to 1.38	Historical performance (historical reporting methodologies) For 2011-12 to 2019-20, OUT1 line 37 has been populated with data from the latest historical performance dataset <u>Historical</u> <u>performance trends for PR24 V2.0 - Ofwat</u> .
	OUT2.10 OUT2.35 to 2.36 OUT3.10	Historical and current performance (PR24 guidelines) For 2017-18 to 2021-22, OUT4 line 44 (household consumption) and line 45 (household population) have been populated with data that is consistent with the latest historical performance

	OUT3.36 to 3.37	dataset <u>Historical performance trends for PR24 V2.0 - Ofwat</u> , which equals OUT4 line 46. The previous years are left blank.
	OUT4.44 to 4.52	For 2022-23, the annual average PCC (OUT4 line 47) is
	To be read in	calculated using data from Tables CW5 and SUP1A. The result of 140.6 l/p/d is as per AR23.
	conjunction with Water	Forecast performance
ODS. See the Per Capita Consumption content within the section 'Outcome 3:	For 2023-24, the forecast performance uses the total household consumption included in the WRMP (see WRMP Table 2a: WC Level Normal Year planning scenario). This is also equal to the sum of lines 31 and 32 in Table CW5. The total household population forecast for this period is from Table SUP1A.	
	Fix leaks and ensure there is enough water in the future'.	For 2030-31 to 2034-25, we have used the total household consumption from the WRMP (see WRMP Table 2a: WC Level Normal Year planning scenario). We have then added back the AMP9 household consumption benefits from the WRMP as these are allocated to enhancement expenditure. This means that in 2034-35, the household consumption in Table OUT4, line 45 is 35.4 MI/d higher than the WRMP normal year. The household population forecast for this years is also taken from the WRMP.
		Performance from base and enhancement expenditure In response to Information Notice 23/07 issued in July 2023, our Water ODS details the impact of historical enhancement spend on performance. This, along with the AMP8 and AMP9 allocations is summarised below to show the workings of Tables OUT1, OUT2 and OUT3. Due to the three year average PC and the benefits of enhancement prior to AMP8, the check in OUT3 against Table CW15 shows 'FALSE'.
		<ul> <li>PR24 methodology (lines OUT1.36, 2.36, 3.37)</li> <li>2017-18: 34.5 Ml/d of enhancement benefit to household consumption from Water ODS Tables 31, 32 and 33 (this value normalised by population (OUT4.46) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)</li> <li>2018-19: 46.5 Ml/d of enhancement benefit to household consumption from Water ODS Tables 31, 32 and 33 (this value normalised by population (OUT4.46) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)</li> <li>2019-20: 67.3 Ml/d of enhancement benefit to household consumption from Water ODS Tables 31, 32 and 33 (this value normalised by population (OUT4.46) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)</li> <li>2019-20: 67.3 Ml/d of enhancement benefit to household consumption from Water ODS Tables 31, 32 and 33 (this value normalised by population (OUT4.46) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)</li> </ul>
		• 2020-21: 77.7 MI/d of enhancement benefit to household consumption from Water ODS Tables 31, 32, 33 and 34 (this value normalised by population (OUT4.46) is the value in

OUT3, OUT1 = actual performance and OUT2 is actual
performance plus OUT3)
• 2021-22: 90.1 MI/d of enhancement benefit to household
consumption from Water ODS Tables 31, 32, 33 and 34 (this
value normalised by population (OUT4.46) is the value in
OUT3, OUT1 = actual performance and OUT2 is actual
performance plus OUT3)
• 2022-23: 103.5 MI/d of enhancement benefit to household
consumption from Water ODS Tables 31, 32, 33 and 34 (this
value normalised by population (OUT4.46) is the value in
OUT3, OUT1 = actual performance and OUT2 is actual
performance plus OUT3)
• 2023-24: 116.9 MI/d of enhancement benefit to household
consumption from Water ODS Tables 31, 32, 33 and 34 (this
value normalised by population (OUT4.46) is the value in
OUT3, OUT1 = actual performance and OUT2 is actual
performance plus OUT3)
• 2024-25: 131.3 MI/d of enhancement benefit to household
consumption from Water ODS Tables 31, 32, 33 and 34 (this
value normalised by population (OUT4.46) is the value in
OUT3, OUT1 = actual performance and OUT2 is actual
performance plus OUT3)
• 2025-26: 131.3 MI/d of enhancement benefit from 2011-12 to
2024-25 and a further 9.4 MI/d of benefit from AMP8
enhancement to household consumption (this value
normalised by population (OUT4.46) is the value in OUT3,
OUT1 = actual performance and OUT2 is actual performance
plus OUT3)
• 2026-27: 131.3 MI/d of enhancement benefit from 2011-12 to
2024-25 and a further 18.8 MI/d of benefit from AMP8
enhancement to household consumption (this value
normalised by population (OUT4.46) is the value in OUT3,
OUT1 = actual performance and OUT2 is actual performance
plus OUT3)
<ul> <li>2027-28: 131.3 MI/d of enhancement benefit from 2011-12 to 2024-25 and a further 28.1 MI/d of benefit from AMP8</li> </ul>
enhancement to household consumption (this value
normalised by population (OUT4.46) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance
plus OUT3)
<ul> <li>2028-29: 131.3 MI/d of enhancement benefit from 2011-12 to</li> </ul>
2024-25 and a further 37.5 MI/d of benefit from AMP8
enhancement to household consumption (this value
normalised by population (OUT4.46) is the value in OUT3,
OUT1 = actual performance and OUT2 is actual performance
plus OUT3)
<ul> <li>2029-30: 131.3 MI/d of enhancement benefit from 2011-12 to</li> </ul>
2024-25 and a further 46.9 MI/d of benefit from AMP8
enhancement to household consumption (this value
normalised by population (OUT4.46) is the value in OUT3,
OUT1 = actual performance and OUT2 is actual performance
plus OUT3)

• 2030-31 to 2034-25: 178.2 MI/d of enhancement benefit to household consumption (this value normalised by population (OUT4.46) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)
PR24 methodology (lines OUT1.10, 2.10, 3.10) In lines OUT1.10, OUT2.10 and OUT3.10, the impact of the above can be seen in terms of the PCC performance commitment. By the end of AMP8, our plan is to reduce PCC by 5.5% (OUT1.10), against the baseline. Without enhancement benefits, this would turn into a 5.1% increase (OUT2.10). Therefore, 10.6% is attributed to enhancement (OUT3.10).
<ul> <li>Historical reporting methodology (lines OUT1.37, 2.35, 3.36)</li> <li>2011-12: 2.1 Ml/d of enhancement benefit to household consumption from Water ODS Table 31 (this value normalised by AR12 population (8,523,135) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT2)</li> </ul>
<ul> <li>OUT3)</li> <li>2012-13: 3.2 MI/d of enhancement benefit to household consumption from Water ODS Table 31 (this value normalised by AR13 population (8,717,411) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)</li> </ul>
<ul> <li>2013-14: 4.2 MI/d of enhancement benefit to household consumption from Water ODS Table 31 (this value normalised by AR14 population (8,813,027) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)</li> </ul>
<ul> <li>2014-15: 5.3 MI/d of enhancement benefit to household consumption from Water ODS Table 31 (this value normalised by AR15 population (9,102,358) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)</li> </ul>
<ul> <li>2015-16: 14.0 MI/d of enhancement benefit to household consumption from Water ODS Tables 31 and 32 (this value normalised by AR16 population 9,404,223) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)</li> </ul>
<ul> <li>2016-17: 23.7 MI/d of enhancement benefit to household consumption from Water ODS Tables 31 and 32 (this value normalised by AR17 population (9,779,115) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)</li> </ul>
<ul> <li>2017-18: 34.5 Ml/d of enhancement benefit to household consumption from Water ODS Tables 31, 32 and 33 (this value normalised by population (OUT4.46) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)</li> </ul>
<ul> <li>2018-19: 46.5 Ml/d of enhancement benefit to household consumption from Water ODS Tables 31, 32 and 33 (this value normalised by population (OUT4.46) is the value in</li> </ul>

		<ul> <li>OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)</li> <li>2019-20: 67.3 Ml/d of enhancement benefit to household consumption from Water ODS Tables 31, 32 and 33 (this value normalised by population (OUT4.46) is the value in OUT3, OUT1 = actual performance and OUT2 is actual performance plus OUT3)</li> <li>Green Economic Recovery (GER)</li> <li>We have asked Ofwat to consider adjusting the GER funding conditions in light of the affect that the summer drought of 2022 and subsequent freeze-thaw event has had on the achievability of our end of AMP leakage target. The outcome of these discussions will determine if we can proceed with the GER programme.</li> </ul>
		The Water ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2 OUT3 OUT4	Business demand OUT1.11 OUT2.11 OUT3.11 OUT4.71 to 4.74	This is a new common PC for AMP8. For the period 2017-18 to 2021-22, the business demand is the post-MLE (Maximum Likelihood Estimation) business demand that was calculated in the water balances that have also been used to derive the annual average leakage values and annual PCC values in lines OUT4.33 and OUT4.37.
	To be read in conjunction	For 2022-23, the business demand is calculated using data from Table CW5.
	with Water ODS. See the Business Demand content within the section	Forecast performance For 2023-24 to 2029-30, the forecast performance uses the total non-household consumption included in the WRMP (see WRMP Table 2a: WC Level Normal Year planning scenario). This is also equal to the sum of lines 33 and 34 in Table CW5.
	'Outcome 3: Fix leaks and ensure there is enough water in the future'.	For 2030-31 to 2034-25, we have used the total non-household consumption from the WRMP (see WRMP Table 2a: WC Level Normal Year planning scenario). We have then added back the AMP9 business consumption benefits from the WRMP as these are allocated to enhancement expenditure. This means that in 2034-35, the business demand in Table OUT4, line 72 is 24.4 MI/d higher than the WRMP normal year.
		Performance from base and enhancement expenditure Our PR24 plan and WRMP include 28.9 Ml/d of business demand savings in AMP8. We have allocated this to enhancement. This is reflected in Table OUT3 and Table OUT2 shows the level of business demand in AMP8 without the enhancement. Due to three-year average definition of the PC, the full impact of the AMP8 enhancement occurs in 2032-23.

		Green Economic Recovery (GER) We have asked Ofwat to consider adjusting the GER funding conditions in light of the affect that the summer drought of 2022 and subsequent freeze-thaw event has had on the achievability of our end of AMP leakage target. The outcome of these discussions will determine if we can proceed with the GER programme. Additional information in Water ODS The Water ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2 OUT3 OUT5	Total pollution incidents OUT1.12 OUT2.12 OUT3.12 OUT5.34 to 5.43 To be read in conjunction with Wastewater ODS. See the Total Pollution Incidents content within the section 'Outcome 2: Stopping polluting rivers and improving their quality'.	<ul> <li>Sewer length (line OUT5.34)</li> <li>For the years prior to 2021-22, this has been taken from annual return submissions by summing the 'Total length of "legacy" public sewers as at 31 March' and the 'Length of formerly private sewers and lateral drains (s105A sewers)'.</li> <li>For the years 2021-22 to 2025-26, the data source is the 2017-18 annual return and this is confirmed in the EPA guidelines.</li> <li>For 2026-27 to 2030-31, the data source is the sum of Table CWW6 lines 21 and 22 for the year 2022-23.</li> <li>For 2031-32 onwards, the data source is the sum of Table CWW6 lines 21 and 22 for the year 2027-28.</li> <li>Number of pollution incidents (lines OUT5.37, 5.39, 5.41, 5.43)</li> <li>For 2011-12 to 2021-22, we have populated the lines using our annual return and EPA supporting files. The total category 1 to 3 pollution incidents matches the totals in the latest historical performance dataset <u>Historical performance trends for PR24 V2.0</u> - Ofwat.</li> <li>For 2023-24 to 2024-25, we have populated the lines based on our internal forecasts. We have also used judgement to assume 16 Category 2 pollutions and nil Category 1 pollutions in 2023-24 and 8 Category 2 pollutions and nil Category 1 pollutions in 2024-25. The improvement is assumed due to the implementation of our Pollution Incident Reduction Plan (PIRP).</li> <li>From the start of AMP8, we have assumed that the Environment Agency will amend the classification of pollutions with category 4 pollutions now being reclassified as category 3 incidents and hence, our future performance will include all pollution incidents, irrespective of the degree of impact on the environment.</li> <li>Our forecast for AMP8 is to deliver an ambitious 30% reduction in total pollution incidents in line with the government's Water Industry Strategic Environmental Requirements (WISER) 2022. This means we have profiled an improvement of 35 total pollutions per year in AMP8.</li> </ul>

		From 2025-26 onwards, we have assumed nil Category 1 pollutions per year. For Category 2 pollutions, we have assumed that the rising mains investment in our asset deficit enhancement case will result in an improvement of 4 Category 2 pollutions by 2029-30.
		For AMP9, we have assumed that Category 2 pollutions will reduce by a further 2 incidents through base expenditure. For category 3 pollutions we have assumed that the annual reduction between 2028-29 and 2029-30 will be continue at the same reduction per year through base expenditure.
		Performance from base and enhancement expenditure Our asset health deficit case is included as enhancement in our PR24 submission (see TMS15: Asset Deficit). This includes for the proactive replacement of rising mains. Without this investment we have forecast that the performance through base expenditure would be 8 pollution incidents higher in 2029-30 and through the period 2030-31 to 2034-35. The impact of this is shown in lines 2.12 and 3.12.
		Additional information in Wastewater ODS The Wastewater ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2	Serious pollution	For water for 2011-12 to 2022-23, we have populated lines 4.83 and 4.84 using historical records.
OUT3 OUT4 OUT5	OUT1.13 OUT2.13 OUT3.13	For 2023-24 to 2034-35, we have assumed there will be no serious pollution incidents for water assets.
	OUT4.83 to 4.85 OUT4.100 to	The wastewater serious pollution incidents are included in the Total Pollutions section of Table OUT5 and the results are calculated in line OUT5.44.
	4.102 OUT5.44 To be read in conjunction with Wastewater ODS. See the Serious Pollution	Performance from base and enhancement expenditure Our asset deficit case is included as enhancement in our PR24 submission. This includes for the proactive replacement of rising mains. Without this investment we have forecast that the performance through base expenditure would be 4 serious pollution incidents higher in 2029-30 and through the period 2030-31 to 2034-35. The impact of this is shown in lines 2.13 and 3.13.
	Incidents content within the section 'Outcome 2: Stopping polluting rivers	Additional information in Wastewater ODS The Wastewater ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.

	and improving their quality'.	
OUT1 OUT2 OUT3 OUT4 OUT5	Discharge permit compliance OUT1.14 OUT2.14 OUT3.14 OUT4.86 to 4.89	Discharge permit compliance For 2011-12 to 2022-23, the number of numeric discharge permits and the number of sites with failing discharges is consistent with this link: <u>Thames Water EPA data report 2022 - GOV.UK</u> (www.gov.uk). For OUT4.87, we have assumed that the number of permits between 2011-12 and 2014-15 is 34 as per 2015-16 (2015 calendar year).
	OUT4.103 to 4.109 OUT5.45 to	For 2023-24 to 2034-25, we have assumed that the number of discharge permits will remain at the 2022-23 levels.
	5.48 To be read in	For 2023-24, our year to date forecast has been used to populate 4 failing wastewater sites and no failing water sites.
	conjunction with	For 2024-25, we are forecasting 1 failing wastewater site and no failing water sites.
	Wastewater ODS. See the Discharge Permit Compliance content within the section 'Outcome 2: Stopping polluting rivers and improving their quality'.	For 2025-26 onwards, we are forecasting nil failing sites. However, we recognise that due to increased complexity and cost we are unable to deliver the entire AMP7 WINEP by 2025 and up to 105 outputs will be delayed into AMP8. We are yet to receive notification from the Environment Agency as to how they will treat this delay, in terms of issuing new permits. Depending on the outcome of their review the forecasts of nil wastewater failing sites may need to change, to take into account the implications for the measurement of this performance commitment. In addition, the nil forecast does not yet take into account the final WINEP for AMP8, which may again result in changes to the above.
		Total number of failing discharges The total number of failing discharges for 2011-12 to 2022-23 is taken from our historical records.
		For 2023-24, our year-to-date performance has been used to populate 4 failing wastewater discharges and no failing water discharges.
		For 2024-25, we are forecasting 1 failing wastewater discharge and no failing water discharges.
		Performance from base and enhancement expenditure Our sewage treatment works growth business case is included as enhancement in our PR24 submission. Without this investment we have forecast that five STWs would fail their numeric permits from 2028-29 onwards. The impact of this is shown in lines 2.14 and 3.14.
		Additional information in Wastewater ODS The Wastewater ODS contains an analysis of our historical performance, a comparison of our performance with the industry

		and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2 OUT3 OUT5	Bathing water quality OUT1.15 OUT2.15 OUT2.15 OUT3.15 OUT5.49 to 5.62	Ofwat issued bathing water historical calculations (Bathing Water Historical Calculations.xlsx) for this performance commitment to companies on 3 July 2023. This showed that Thames Water has two bathing waters which can be impacted by the discharge of our functions and six that cannot. The two that can be impacted are Wolvercote Mill Stream and Cotswold Country Park and Beach.
	To be read in conjunction with Wastewater ODS. See the Bathing Water Quality	We agree with the status of Wolvercote Mill Stream. We disagree with the status of Cotswold Country Park and Beach because analysis of our assets on GIS shows that none of our assets are hydraulicly connected to this bathing water. We also disagree with the status of Frensham Great Pond as our analysis shows that one of our sewage pumping stations can impact the bathing water. We have issued a query to Ofwat on this matter.
	content within the section	We have populated the OUT tables based on two bathing waters, Wolvercote Mill Stream and Frensham Great Pond.
	'Outcome 2: Stopping polluting rivers and improving their quality'.	In the long term we expect several more sections of rivers will be designated by DEFRA as bathing waters. However, our population of the data tables only considers the two current eligible bathing waters.
		For 2011 to 2022, the compliance classifications for Frensham Great Pond are as follows:
		2011 – Excellent, 2012 – Excellent, 2013 – Good, 2014 – assumed Excellent, 2015 – Good, 2016 – Excellent, 2017 – Excellent, 2018 – Excellent, 2019 – Excellent, 2020 – no classification (Covid lockdown period), 2021 – Excellent, 2022 – Excellent.
		For 2022, the classification for Wolvercote Mill Stream was Poor Bathing water profile (data.gov.uk)
		For 2023 to 2035, we have forecast that the classification for Frensham Great Pond will remain Excellent although we note that as of 7 July 2023, that Bathing is not advised, due to pollution from harmful algae.
		Our AMP8 WINEP programme includes an enhancement scheme that will improve the quality of our effluent discharges that impact Wolvercote Mill Stream. The scheme is forecast to be delivered by 2029. We have assumed that the delivery of this scheme will contribute to an improvement of this bathing water classification from Poor to Sufficient in 2029 and that this will then be maintained through to 2034.

Performance from base and enhancement expenditure Our WINEP programme enhancement scheme for Wolvercote Mill Steam is forecast to contribute to the improvement of the bathing water classification from poor to sufficient in 2029.
Table OUT2 assumes that the status of this bathing water delivered through base expenditure would remain poor through to 2035.
Table OUT3 shows the improvement of the performance commitment forecast from 2029 onwards due to the WINEP enhancement scheme.
Additional information in Wastewater ODS The Wastewater ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.
Total load of phosphorus in 2020 (OUT5.63) Following a request from the Ofwat Cost Assessment team on 31 May 2023, we undertook a review and validation of the historical data relating to this performance commitment and returned it to Ofwat on 7 July 2023. This return has formed the basis of our assessment of the baseline equal to the total load of phosphorus from relevant discharges of all the our wastewater treatment works from 1st January 2020 to 31st December 2020. We identified several duplicate entries in the data and have removed those from our analysis.
In line with Ofwat's guidelines:
<ul> <li>Works that discharge treated wastewater into freshwaters that did not have a phosphorus permit in 2020 are assumed to have an annual mean concentration of phosphorus of 5 mg/l.</li> <li>Works that discharge treated wastewater into freshwaters that did not have an annual mean daily flow for 2020 are assumed to have a flow of 1.2x permitted dry weather flow.</li> </ul>
Phosphorus emitted in 2020 (OUT5.64) and phosphorus emitted in calendar year (OUT5.65) from works that had a phosphorus limit for the latest calendar year
For the historical years 2011 to 2022, the following assumptions were applied:
<ul> <li>Works that discharge treated wastewater into freshwaters that did not have a phosphorus permit in the relevant year are assumed to have an annual mean concentration of phosphorus of 5 mg/l.</li> </ul>
<ul> <li>Works that discharge treated wastewater into freshwaters that did not have an annual mean daily flow for the relevant year are assumed to have a flow of 1.2x permitted dry weather flow.</li> </ul>

For the forecast years 2023 to 2034, the following assumptions
<ul> <li>were applied for all treatment works except Burstow:</li> <li>The annual load of phosphorus in kg is assumed to be the average of 2020, 2021, 2022 until such point at which a new phosphorus permit is in place for a full calendar year. If there are no current plans for a new phosphorus permit, then the forecast is the average of 2020, 2021 and 2022 through to 2034</li> </ul>
<ul> <li>Where a new phosphorus permit is planned, then for the first full year in which the permit is in place and all future years to 2034, then the average load of 2020, 2021, and 2022 is multiplied by the permit 'assumed load factor'.</li> <li>The assumed load factor is the new P permit value divided by the average annual mean concentration of phosphorus in 2020, 2021 and 2022. We also have used a condition in the calculation such that the assumed load factor cannot be greater than 1 (this applies to works where the current P concentration is already lower than the future P permit value).</li> </ul>
We believe that this approach to forecasting is sensible based on our analysis of storm overflows performance, for the years 2020, 2021 and 2022. This is because treatment works flow and phosphorus load vary due to the weather. The baseline of 2020 is a wetter year, 2022 was a dry year and 2021 was close to P50.
Annual Spill Count Frequency Distribution Curve
DWMP (TSR) P50 Spill year
Vyear (14,700 spills)
2022 – Dry year (7,900 spills) P0 P50 P100 Spill Count
For Burstow treatment works, the annual load of phosphorus for 2022 is forecast for 2023 and 2024 as it had a new permit in 2022, reducing the load. It is then forecast to get a tighter permit in 2024 and so the assumed load factor is applied from 2025 onwards. Burstow is the only works with a new permit in place for 2020 to 2022.

		Phosphorus prevented from entering rivers from partnership working Our Smarter Water Catchment projects in the Evenlode catchment has resulted in an estimated benefit of 299kg of phosphorus per year from 2021 onwards.
		Design headroom and population growth As per the methodology above, works with new permits in the future are forecast work to the new permit level. In reality they are likely to perform better than the permit level due to design headroom to reduce the risks of works failing consent.
		However, population growth is likely to increase the potential P load but this has not been accounted for.
		At company level, we have assumed that the increased P load risk from population growth is cancelled out by design headroom for works with future P permits.
		Performance from base and enhancement expenditure Historical river water quality improvements have been delivered through enhancement expenditure. However, it is too complicated to calculate this improvement in Table OUT2. We have set OUT2.16 to equal OUT1.16 for the period 2011-12 to 2023-24. From 2024-25 onwards, we have set OUT2.16 at the OUT1.16 2023-24 level.
		Therefore, Table OUT3 shows the improvement of the performance commitment forecast from 2024-25 onwards, as a result of the works with new P permits in place for the full year 2024-25 onwards.
		Note the benefits from the AMP7 WINEP programme have not been included in Table CWW15 and the OUT3 check in Column AL onwards shows as 'FALSE'.
		Additional information in Wastewater ODS The Wastewater ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2 OUT3 OUT5	Storm overflows OUT1.17 OUT2.17 OUT3.17 OUT5.72 to 5.77	Total number of monitored spills (OUT5.72) For the years 2011-19 this is prior to storm overflows being monitored and hence no data. For 2020-22, the total number of monitored spills are based on calendar year and the data provided is our historical actual recorded spill data using the 12/24 reporting method. Our results are included in the EDM files published by the Environment Agency.
	To be read in conjunction with	For 2023 to 2035 the data source is based on modelling of expected spill numbers and assumes average weather each year. No allowance for Climate Change has been considered in the spill

Wastewater number up to 2035, this is considered not to be material to the ODS. See the numbers quoted. Storm The forecast spills include for planned investment to Overflows content within reduce/improve storm overflow performance through the Thames the section Tideway Tunnel project, the wastewater asset assurance 'Outcome 2: programme (WAAP) and the WINEP storm overflows programme. Stopping polluting rivers Total number of storm overflows (OUT5.73) and improving For 2020-22, the total number of storm overflows is based on calendar year and the data provided is our actual number of their quality'. installed Event Duration Monitors (EDMs) with numeric data. The overflows with numeric data are included in the EDM files published by the Environment Agency. For 2023 the number of overflows is as per 2022. For 2024 to 2035 the number reduces slightly to reflect the programme of work due to conclude to verify all overflow locations and to reconcile with permits for CSOs. Uptime (OUT5.75) For 2020-22, the reported numbers are based on calendar year, the data provided is our historical actual uptime data. For 2023 to 2035 the performance is assumed to improve with 98% uptime forecast as it is clear from the methodology that availability is an important consideration for reported performance. From 2025 (AMP8) to 2035 100% availability has been reported in line with the Ofwat table template. Note that our total number of spills from 2025 onwards includes an adjustment that assumes 98% availability, i.e. the availability adjustment is included in line OUT5.72 from 2025 onwards. Performance from base and enhancement expenditure There is one intervention programme partly funded from base expenditure in AMP7. The WAAP element of the AMP7 (WAAP + WINEP) programme is forecast to save 1,800 spills when it completes in AMP8. The proportion of benefit expected to be delivered in 2024 is 1.0/3.2. This has been used to calculate the performance through base expenditure in 2024, which is shown in Table OUT2. As all storm overflows investment in AMP8 (including the AMP7 carry over) is treated as enhancement, the performance from base expenditure remains at the 2024 level through to 2034. The benefit from enhancement expenditure including the Thames Tideway Tunnel and WINEP is shown in Table OUT3. In 2029-30, the benefits from CWW15 are 3.72 lower than OUT2 minus OUT1. This is because the benefits from the Thames Tideway Tunnel and the AMP7 WINEP/WAAP carry over have not been included in Table CWW15.

		Additional information in Wastewater ODS The Wastewater ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2 OUT3 OUT4	Mains repairs OUT1.18 OUT2.18 OUT3.18 OUT4.90 to 4.96 To be read in conjunction with Water ODS. See the Mains Repairs content within the section 'Outcome 2: Reliable supply with minimal disruption'.	

		technology. We have forecast 10% reduction in our 2024-25
		level of proactive leak repairs by the end of AMP8, e.g. reduce mains repairs by 406. We have assumed a linear benefits profile and have assigned all the benefits to avoided proactive mains repairs.
		Based on this our forecasts for 2025-26 to 2029-30 are as follows:
		<ul> <li>The 2025-26 forecast is for performance of 8,689 mains repairs, with reactive repairs of 4,834 and proactive repairs of 3,855</li> </ul>
		• The 2026-27 forecast is for performance of 8,447 mains repairs, with reactive repairs of 4,754 and proactive repairs of 3,693
		• The 2027-28 forecast is for performance of 8,206 mains repairs, with reactive repairs of 4,674 and proactive repairs of 3,532
		• The 2028-29 forecast is for performance of 7,965 mains repairs, with reactive repairs of 4,594 and proactive repairs of 3,371
		<ul> <li>The 2029-30 forecast is for performance of 7,724 mains repairs, with reactive repairs of 4,514 and proactive repairs of 3,210</li> </ul>
		<ul> <li>For 2030-31 to 2034-35, we have calculated lines OUT4.2 and OUT4.3 based on the following:</li> <li>Reactive mains repairs performance remains stable at the</li> </ul>
		<ul> <li>2029-30 level of 4,514 repairs</li> <li>Proactive mains repairs performance remains stable at the 2029-30 level of 3,210 repairs</li> </ul>
		Performance from base and enhancement expenditure All of the improvements are allocated to base expenditure and therefore line OUT2.18 is identical to line OUT1.8 and OUT3.18 shows nil.
		Additional information in Water ODS The Water ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2 OUT3 OUT4	Unplanned outage OUT1.19 OUT2.19 OUT3.19 OUT3.97 to 4.99	Historical and current performance For 2019-20 to 2021-22, line OUT1.19 has been populated with data from the latest historical performance dataset <u>Historical</u> <u>performance trends for PR24 V2.0 - Ofwat</u> . The previous years are left blank. This measure was introduced in shadow reporting in 2017-18 but it took us until 2019-20 to put in place the systems that we required to report this measure in accordance
	To be read in conjunction with Water	with the guidelines.

	ODS. See the Unplanned Outage content within the section 'Outcome 2: Reliable supply with minimal disruption'.	The 2022-23 performance is as per AR23. We confirm that we did not make any exclusions due to raw water quality at AR23 and hence our reported performance is consistent with the PR24 guidelines. Forecast performance We have forecast performance of 2.34% in 2023-24 and 2024-25. This is equal to our 2024-25 PC target. Further improvements are forecast in AMP8 and AMP9 based on our plans. Performance from base and enhancement expenditure All of the improvements are allocated to base expenditure and therefore line OUT2.19 is identical to line OUT1.19 and OUT3.19 shows nil. Additional information in Water ODS The Water ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that
OUT1	Sewer	are linked to the performance outcome. Sewer length (OUT5.78)
OUT2 OUT3 OUT5	Collapses OUT1.20 OUT2.20 OUT3.20	For the years 2017-18 to 2021-22, the data has been populated with data from the latest historical performance dataset <u>Historical</u> <u>performance trends for PR24 V2.0 - Ofwat.</u>
	OUT5.78 to 5.80	For 2022-23 to 2029-30, the data source is Table CWW6, lines CWW6.21 and CWW6.22.
	To be read in conjunction with Wastewater	For the years 2030-31 to 2034-35, the sewer length has been uplifted annually by the km equal to the forecast annual increase over the period 2028-29 to 2029-30.
	ODS. See the Sewer Collapses content within the section 'Outcome 1: Preventing sewer flooding	Sewer collapses (OUT5.79) In AMP6, shadow reporting commenced in 2017-18 using guidelines as per the current PC definition. Prior to 2017-18, our methodology was different to the current PC definition and so we have not completed line OUT5.79 for the period 2011-12 to 2016- 17.
	and taking waste away safely'.	For the years 2017-18 to 2021-22 the data has been populated with data from the latest historical performance dataset <u>Historical performance trends for PR24 V2.0 - Ofwat.</u>
		<ul> <li>For 2022-23, we have populated the lines using the sum of the 'total number of gravity sewer collapses' and the 'total number of rising mains bursts' as reported in Table 7C in our annual return.</li> <li>The 2022-23 performance is 282 gravity sewer collapses and 106 rising mains bursts.</li> </ul>

		For 2023-24 to 2024-25, we have populated the lines based on our forecasts from our Operational teams. The 2023-24 and 2024-25 forecast is for performance of 426 gravity sewer collapses and rising mains bursts. We have assumed 316 gravity sewer collapses (the average of AR20, AR21 and AR22) and another small increase in rising mains bursts to 110.
		Our sewer collapse performance is industry leading. Therefore our AMP8 plan is to maintain the 2024-25 level of performance through maintaining gravity sewer collapse performance (base expenditure) and stabilising the deteriorating trend of rising mains bursts through the asset deficit enhancement expenditure.
		For each year between 2025-26 and 2034-35, we have forecast 316 gravity sewer collapses and 110 rising mains bursts.
		Performance from base and enhancement expenditure Our asset deficit case is included as enhancement in our PR24 submission. This includes for the proactive replacement of rising mains. Without this investment we have forecast that the performance through base expenditure would be 13 collapses higher in 2029-30 and through the period 2030-31 to 2034-35. The impact of this is shown in lines 2.20 and 3.20.
		Additional information in Wastewater ODS The Wastewater ODS contains an analysis of our historical performance, a comparison of our performance with the industry and a description of our past, current and future interventions that are linked to the performance outcome.
OUT1 OUT2 OUT3	Streetworks collaboration OUT1.31 OUT2.31 OUT3.31	Please see the commentary for Table OUT10. All of the funding is from base expenditure and therefore Line OUT2.31 is identical to Line OUT1.31 and Line OUT3.31 shows nil.

# OUT6 - Summary information on outcome delivery incentive payments

No commentary required.

## OUT7 - Outcome performance - ODIs (financial)

Data Table	Whole Table or Individual Line/s	Commentary
OUT7	Whole table	Price control allocations (manually populated entries) As detailed in the performance commitment definition for biodiversity (and the Ofwat guidelines for OUT7), price control allocation in Line Out7.6 is split equally between the water resources, water network plus and wastewater network plus controls.
		The price control allocation for serious pollutions is a judgement based on our expected activities. We have input this as 95% wastewater network plus, 5% water network plus and 0% to the additional control 1 (Thames Tideway tunnel).
		The price control allocation for discharge permit compliance is a judgement based on our expected activities. We have input this as 95% wastewater network plus, 5% water network plus and 0% to the additional control 1 (Thames Tideway tunnel).
		The price control allocation for our bespoke PC on streetworks collaboration is 100% water network plus as per the PC definition.
		Common PCs excluding biodiversity and operational greenhouse gas emissions In Ofwat's collaborative research document, it has set out the indicative ODI rates that have been developed using a top-down approach. We are using these indicative rates as the standard outperformance and underperformance rates, which are calculated in columns Q and R of the OUT7 table.
		We are also using the benefit sharing factor of 70% that aligns with Ofwat's commentary in the final methodology.
		Based on this we have calculated the marginal benefits rates in Column O by taking the standard outperformance rate and dividing it by the benefit sharing factor.
		Biodiversity and operational greenhouse gas emissions common PCs In Ofwat's final methodology, it states 'for the majority of common performance commitments, we will base marginal benefit estimates on the collaborative customer research (see chapter 4 of the PR24 final methodology). For the biodiversity and operational greenhouse gas emissions performance commitments, we will use credible external valuations'.

For these PCs, we have left the marginal benefit rates blank, pending publication of these external valuations. At this stage, we are assuming that a benefit sharing factor of 70% will apply.
Bespoke PC on Streetworks Collaboration Based on the bespoke PC methodology we have input a marginal benefit rate of £0.353m in 2022-23 prices and a benefit sharing factor of 50%.

# OUT8 - PR19 Outcome performance summary

Data Table	Whole Table or Individual Line/s	Commentary
OUT8	Whole Table	Forecast performance and associated ODIs for this table are the same as those reported within APR23 apart from the exceptions below.
	Line OUT8.2	Water supply interruptions – changed for year 5 to 00:10:30 and therefore resulting in an increase in the ODI penalty from that stated in APR23 – from -6.438 to -7.783. This is due to the increased constraint on Opex funding for repair gangs, which will likely result in a slower average response time.
	Line OUT8.3	Since the publication of APR23, our leakage forecast has been re- forecasted for year 4 and year 5. Within the APR, the % reduction was reported as 12.1% and 16.3%, respectively, The re-forecasted % are now 11% for year 4 and 15.3% for year 5. As a result the forecast ODI penalty for year 4 and year 5 -16.805 and -13.731, respectively. The reduced % improvement reflects the ongoing challenge in achieving our leakage target, due to the impact of the extreme weather events of 2022 in the 3-year average.
	Line OUT8.4	Per capita consumption was changed to an end of AMP ODI due to the impact of covid on consumption patterns. The new figure reflects a correction to the APR figure for the missing accruals in Yr 1-3 along with a small change in expectations for the remainder of the AMP as we continue to build our insights.
	Line OUT8.5	Mains Repairs: Changed from APR23 from 299.6 in year 4 and 282.7 in year 5 to 298.9 and 281.3. The forecast ODI penalty for year 4 within APR23 is -12.820, compared to -12.641 as reported in OUT8. For year 5, the forecast in APR23 is -9.552, compared to -9.152 in OUT8. This change is due to an improved forecast for the network length in Year 4 and 5 whereas the APR figures reflected the AR23 network length.
	Line OUT8.7	Internal Sewer Flooding: year 4 and year 5 changed to 1.89 and 1.83, respectively (from 1.92 and 1.77 as reported in APR23). This change has lead to a change in the ODIs to -7.543 and -8.213. This change is due to an improved forecast for the connections figures in Year 4 and 5.

Line OUT8.8	Pollution Incidents: Changed for year 4 and year 5 to 34.87 and 33.68, respectively (compared to 32.30 for both years in APR23). This resulted in a change in the ODI to -15.812 and -17.980, respectively. This is a result of considering the increased scope of the measure in AMP8 from Category 1-3 pollutions to Category 1-4.
Line OUT8.10	Treatment works compliance: These % have changed since APR23 to 98.96 in year 4 and 99.74 in year 5. The equivalent numbers in APR23 are 99.20 for both years). The change has resulted in an ODI of -0.123 in year 4 with no change in year 5. The main change within year 4 takes into account four compliance events YTD which will be reflected in this year's performance.
Line OUT8.25	This PC is a new one as agreed with Ofwat for 23/24 and 24/25 as part of the Conditional Allowances. Performance and associated ODIs for this metric will be reported in APR24. The forecast performance was agreed with Ofwat in an information notice, dated February 2023 ( <u>TMS leakage and mains repairs PC adjustment consultation.pdf</u> ). Thames Water continues to forecast to achieve the performance commitment levels and therefore not incur any associated penalty in the ODI. The ODI is set to a penalty if Thames Water is not forecasting to achieve the mains renewal target.

### OUT9 - Biodiversity - Habitat information

This section provides the commentary for the OUT9 table. To avoid large sections of duplicate text, it is intended to be read in conjunction with our 'TMS07 Our AMP8 Water Outcomes Delivery Strategy' (Water ODS) and 'TMS08 Our AMP8 Wastewater Outcomes Delivery Strategy' (Wastewater ODS), both of which contain sections on Biodiversity.

Data Table	Whole Table or Individual Line/s	Commentary
OUT9	Whole table This document	We own and manage land in over 8,000 locations, from the Cotswolds in the west to Essex in the east. In line OUT9.1, we include the results of our GIS analysis of land owned by Thames Water. We have 65.644 km2 of company owned habitat.
		Lines OUT9.2 to 9.15 use further GIS analysis to break down the 65.644 km2 into 11 of the 14 categories included in Table OUT9.
		The results in descending order are as follows:
		<ul> <li>Land considered to have 'Wildlife-rich' habitats or 'Areas of strategic significance' = 16.443 km2</li> <li>Company land that is a protected site = 13.138 km2</li> </ul>
		<ul> <li>Company land expected to be used for solar arrays in 2025-30 = 9.998 km2</li> </ul>
		• Company land that has open habitats = 7.794 km2
		<ul> <li>Company land with short term tenancies (&lt;5 years) = 5.987 km2</li> </ul>
		<ul> <li>Company land that is sealed surfaces = 5.933 km2</li> </ul>

<ul> <li>Company land associated or expected to be associated with obligations, including planning processes, in 2025-30 = 4.309 km2</li> </ul>
<ul> <li>Company land with long term tenancies (&gt;=5 years) = 1.824 km2</li> </ul>
<ul> <li>Company land subject to other rights = 0.184 km2</li> </ul>
<ul> <li>Company land that has tree canopy and woodland cover = 0.020 km2</li> </ul>
<ul> <li>Company land that is standing water = 0.014 km2</li> </ul>
Note that land that supports cereal crops which is not under a farm tenancy reported in OUT9.5 (land expected for solar array projects) or OUT9.6 (land associated with long term tenancies) was recorded under 'open habitats' in line with OUT9.15 (land considered to be "open habitats").
We do not have any company land in the following 3 categories:
<ul> <li>Company land subject to shooting rights</li> <li>Company land that has estuaries and coastal water habitats</li> <li>Company land that is running water</li> </ul>
The 7.794 km2 of open habitat has been considered in developing our Biodiversity performance commitment for PR24. Of this, we have chosen 9 operational sites to survey, for which total landholding equates to 1.13km2 of open habitat.
For each site of the nine sites, we have calculated the baseline units and assessed the baseline condition. The workings are included in the supporting file 'PR24 Sites list_ metric data'. This shows that 0.054 km2 of the land is 'good' status (line OUT9.16), 0.486 km2 is 'moderate' status and 0.004 km2 is 'fairly good' status (both mapped to line OUT9.17 for moderate) and 0.591 km2 of the land is 'poor' status (line OUT9.18).

The baseline units of each site were calculated using the latest available baseline habitat data for our estate. This habitat data was generated through a mixture of ground truthed surveys and open source habitat information and there contains uncertainties around habitat type and condition. Where required the precautionary principle has been applied and the guidance within the DEFRA BNG metric 4.0 followed. Early start biodiversity net gain survey work may commence in Spring 2024 for three of the nine sites. This would give us a more accurate baseline and forecast of the projected biodiversity net gain numbers set out in Tables OUT4 and OUT5.
Across the nine sites, various ecological enhancement works will be undertaken in AMP8. These will include enhancement of grassland habitats to encourage wildflower species, improving habitat connectivity through planting of trees/hedgerows and wetland/pond creation. All enhancements will be linked to nature recovery plans prepared for each site.

OUT10 - Bespoke	nerformance	commitments	overall	nerformance
OUTTO - Despoke	penomance	Communents	overall	penomance

Data Table	Whole Table or Individual Line/s	Commentary
OUT10	Line 10.66 to 10.69	Please note, our bespoke performance commitment submission focuses on Streetworks Collaboration only. Following Ofwat's feedback in June 2023, we are no longer proposing a bespoke performance commitment for Water Supply Resilience. We have also not included a bespoke performance for Embedded Greenhouse Gas Emissions. We propose we use AMP8 to develop the methodology and start measuring to understand baselines and targets for AMP9
	Line 10.82	We have provided the number of collaborative projects delivered on an annual basis. The commitment is end of AMP and we will report the total number of projects delivered on a cumulative basis in AMP8. More information is provided below.

Data Table	Whole Table or Individual Line/s	Commentary
LS1	Line 7.31	The streetworks collaboration bespoke PC is 100% allocated to the Water network plus price control. The outperformance ODI rate has been populated.
		As this PC is outperformance only, we have not provided an ODI value for underperformance.

	Line 1.31	We have provided the additional information required in columns Y to AD. We have provided performance forecasts through to 2035 as required. After this time, we would reassess whether an incentive continues to be necessary to encourage collaborative streetworks.
LS2	Line 2.31	<ul> <li>Streetworks interventions rely on a programme of mains repair being delivered in London in AMP8.</li> <li>For PR24, Thames Water has submitted a cost adjustment claim relating to main repairs. On the basis that mains repair drives collaborative opportunities and the assumption that our cost adjustment claim is accepted, we consider all expenditure is base expenditure.</li> <li>This assumption is subject to change if the mains repairs cost adjustment claim is not accepted.</li> </ul>

#### How the AMP8 performance forecast has been derived

We have established a committed performance level of 75 collaborative projects in total for AMP8, with a phased delivery of 15 projects per year.

Our committed performance commitment level is based on the number of collaborative projects delivered historically, their delivery profile, and the programme of mains repair forecast to be delivered in London in AMP8.

In the four years from 2019/20 and 2022/23, Thames Water delivered 17 collaborative projects in London. This equates to an average of c.4 per year. This PC is applicable to London.

When compared with the average historical number of collaborative projects delivered in London, we consider 15 collaborative projects per year from 2025-26 for a total of 75 across the AMP to be a stretching target.

Through our continued engagement with the GLA, it is clear that 75 is the minimum that they would support. They see a target for Thames Water of 75 as commensurate with gas and

electricity companies for their similar bespoke performance commitments in Ofgem's GD2 and ED2 price controls, which the GLA also supported on.

It also is an end of AMP target, so provides opportunity to ramp up as the AMP goes on.

Finally, to qualify, a collaboration must be a minimum of 200m. 75 collabs @ 200m equals a minimum of 15km of collaboration, out of a total of 500km of mains repairs in the plan, of which 250km is in the London area.

The target is contingent on our mains repairs cost adjustment claim being accepted. If it is not then we may / will need a lower target. Much of our mains replacement is in London and provides opportunity for collaboration.

#### How the forecasts up to 2049-50 been derived

The performance forecasts for AMP9 assume that we deliver 20 collaborative projects per year. This is in line with the cap of 20 projects per year in AMP8 informed by the customer research undertaken by SGN.

We have not forecast performance for this bespoke PC beyond 2035. There will be a point at which the barriers and costs of delivering collaborative streetworks are sufficiently reduced and offset by the benefits realised from the 'Dig-Once' approach. Additionally, whilst we have constrained ourselves to water network plus interventions in London in this bespoke PC in AMP8 and in our forecast of AMP9 performance, we believe that it is reasonable to expect we expand the incentive to include wastewater interventions and areas outside London as well. This is likely to impact our AMP10 performance commitment and is something we will consider as we develop our AMP9 programme.

