



TMS-DD-072 Data Table Commentary – Additional Tables

[ADD1 - Base expenditure analysis - water resources and water network+ \(CW2 equivalent; post-frontier shift efficiency and real price effects basis\)](#)

Please refer to the previously submitted commentary for CW2 and the CW2 Change Log – There are no additional notes for ADD1 as ADD1 is the same as CW2 but post-Frontier Shift Efficiency.

[ADD2 - Enhancement expenditure - water resources and water network+ \(CW3 equivalent; post-frontier shift efficiency and real price effects basis\)](#)

Please refer to the previously submitted commentary for CW3 and the CW3 Change Log – There are no additional notes for ADD2 as ADD2 is the same as CW3 but post-Frontier Shift Efficiency.

[ADD3 - Third party costs by business unit for the wholesale water service \(CW11 equivalent; post-frontier shift efficiency and real price effects basis\)](#)

Please refer to the previously submitted commentary for CW11 and the CW11 Change Log – There are no additional notes for ADD3 as ADD3 is the same as CW11 but post-Frontier Shift Efficiency, of which none applies to this table.

[ADD4 - Transitional expenditure - water resources and water network+ \(CW12 equivalent; post-frontier shift efficiency and real price effects basis\)](#)

This table has been left intentionally unpopulated and is a Nil Return for Thames Water.

[ADD5 - Accelerated programme expenditure - water resources and water network+ \(CW17 equivalent; post-frontier shift efficiency and real price effects basis\)](#)

This table has been left intentionally unpopulated and is a Nil Return for Thames Water.

[ADD6 - Base expenditure analysis - wastewater network + and bioresources \(CWW2 equivalent; post-frontier shift efficiency and real price effects basis\)](#)

Please refer to the previously submitted commentary for CWW2 and the CWW2 Change Log – There are no additional notes for ADD6 as ADD6 is the same as CWW2 but post-Frontier Shift Efficiency.

[ADD7 - Enhancement expenditure - wastewater network+ and bioresources \(CWW3 equivalent; post-frontier shift efficiency and real price effects basis\)](#)

Please refer to the commentary for CWW3 and the CWW3 Change Log – There are no additional notes for ADD7 as ADD7 is the same as CWW3 but post-Frontier Shift Efficiency.

[ADD8 - Third party costs by business unit for the wholesale wastewater service \(CWW11 equivalent; post-frontier shift efficiency and real price effects basis\)](#)

Please refer to the commentary for CWW11 and the CWW11 Change Log – There are no additional notes for ADD8 as ADD8 is the same as CWW11 but post-Frontier Shift Efficiency, of which none applies to this table.

[ADD9 - Transitional expenditure - wastewater network+ and bioresources \(CWW12 equivalent; post-frontier shift efficiency and real price effects basis\)](#)

This table has been left intentionally unpopulated and is a Nil Return for Thames Water.

[ADD10 - Accelerated programme expenditure - wastewater network+ and bioresources \(CWW17 equivalent; post-frontier shift efficiency and real price effects basis\)](#)

This table has been left intentionally unpopulated and is a Nil Return for Thames Water.

[ADD11 - Developer services expenditure \(excluding diversions\) - water \(English companies\) \(DS2e equivalent; post-frontier shift efficiency and real price effects basis\)](#)

Data Table	Whole Table or Individual Line/s	Commentary
ADD11	Whole Table	<p>Values are stated in 2022/23 price base.</p> <p>For AMP8 there are no differences between this data table and table DS2e submitted as part of our PR24 submission. Our delivery contracts are structured either on a schedule of rates arrangement, or certain larger projects are individually tendered. Consequently, there are no differences between pre and post frontier shift adjustments for these tables.</p> <p>For financial year 2023/24 we have restated the figures in line with our published annual performance report, after adjusting for inflation to present in 2022/23 price base.</p>

ADD12 - Developer services expenditure (excluding diversions) - water (Welsh companies) (DS2w equivalent; post-frontier shift efficiency and real price effects basis)

This table has been left intentionally unpopulated and is a Nil Return for Thames Water.

ADD13 - Developer services expenditure (excluding diversions) - wastewater (English and Welsh companies) (DS3 equivalent; post-frontier shift efficiency and real price effects basis)

Data Table	Whole Table or Individual Line/s	Commentary
ADD13	Whole Table	<p>Values are stated in 2022/23 price base.</p> <p>For AMP8 there are no differences between this data table and table DS3 submitted as part of our PR24 submission. Our delivery contracts are structured either on a schedule of rates arrangement, or certain larger projects are individually tendered. Consequently, there are no differences between pre and post frontier shift adjustments for these tables.</p> <p>For financial year 2023/24 we have restated the figures in line with our published annual performance report, after adjusting for inflation to present in 2022/23 price base.</p>

ADD14 - IED table BIO 7 Bioresources - Industrial Emissions Directive scheme costs and cost drivers

Data Table	Applicable to Whole Table or Individual Line/s or section	Commentary
ADD14	25 sites listed for Cost Drivers	<p>Additional detail:</p> <ul style="list-style-type: none"> • Volume of sludge treated by site taken from APR 23/24 • Volume of tanks taken from site drawings • Secondary containment volume taken from outline scope requirements by site • Secondary containment impermeable surface upgrade requirements taken from site plans • Secondary containment bund wall length taken from intervention calculations required for volume • Secondary containment bund wall average height taken from intervention calculations required for volume • Number of tanks covered taken from site investigations • Covers surface area provided calculated from tanks size by site. • Average sampling frequency taken from EA conversations

		<ul style="list-style-type: none"> • Number of sample points taken from average pipe crossings from STC into STW • Average number of determinands per sample point taken from EA discussions • Number of monitors based on average number of sample points required • Covers – surface area provided for cake calculated by site but no costs included as per EA and Ofwat guidance
ADD14	25 sites listed for secondary containment	<p>Additional detail</p> <ul style="list-style-type: none"> • Base operational costs by site – All cells left blank as no site currently has secondary containment implemented • Base capital costs by site – All cells left blank as no site currently has secondary containment implemented • Enhanced operational costs – All cells left blank as no increase in opex has been identified by proposed secondary containment interventions. • Enhanced capital costs – Capital costs entered into relevant cells by site and by year for proposed secondary containment interventions required to comply with IED permits.
ADD14	25 sites listed for Tank covering for abatement of fugitive emissions	<p>Additional detail</p> <ul style="list-style-type: none"> • Base operational costs by site – current base operational costs have been entered for those sites where tank covers exist currently. These costs are incurred through the cleaning out of these tanks due to inspection requirements. • Base capital costs by site – current capital costs have been entered for those sites where tank covers exist currently. These costs are asset refurbishment costs identified when the tanks are cleaned due to inspection requirements. • Enhanced operational costs – All cells have been left blank as the newly covered tanks as a result of the IED permits will not require cleaning and inspecting within the AMP • Enhanced capital costs – Enhanced capital costs have been entered by site and by year for those sites that require tank covers as a result of the IED permits.
ADD14	25 sites listed for Cake pad / storage covering	<p>Additional detail</p> <ul style="list-style-type: none"> • Base operational costs – All cells have been left blank following the EA and Ofwat's guidance that cake storage coverings should not be included • Base capital costs – All cells have been left blank following the EA and Ofwat's guidance that cake storage coverings should not be included • Enhanced operational costs – All cells have been left blank following the EA and Ofwat's guidance that cake storage coverings should not be included

		<ul style="list-style-type: none"> Enhanced capital costs – All cells have been left blank following the EA and Ofwat’s guidance that cake storage coverings should not be included
ADD14	25 sites listed for Control and monitoring	<p>Additional detail</p> <ul style="list-style-type: none"> Base operational costs – Base operational costs have been entered by site and by year for costs incurred as part of the current control and monitoring of the STC’s including the use of sludge loggers and sludge sampling and analysis for compliance Base capital expenditure – No base capital costs have been identified and so all cells have been left blank Enhanced operational costs – Increased operational costs incurred as part of the IED permit implementation have been identified by site and by year. These costs are incurred as a result of increased frequency of sampling and greater number of determinands requiring analysis for waste acceptance. Enhanced capital costs – No capital interventions have been identified and so all cells have been left blank
ADD14	25 sites listed for liquor monitoring	<p>Additional detail</p> <ul style="list-style-type: none"> Base operational costs – All cells have been left blank as no costs are currently incurred as liquor sampling is not routinely carried out. Base capital costs – All cells have been left blank as no costs are currently incurred as liquor sampling is not routinely carried out. Enhanced operational costs – Enhanced operational costs have been entered by site and by year for all sites as a result of sampling requirements in line with the IED permit. Enhanced capital costs – Enhanced capital costs have been entered by site and by year for sampling points to be installed to allow for IED permit compliance.
ADD14	25 sites listed for permit application	<p>Additional detail</p> <ul style="list-style-type: none"> Base operational costs – No base operational costs have been identified for the permit applications therefore all cells have been left blank Base capital costs – Costs incurred as part of the permit application have been identified and entered by site and by year. All costs are within AMP7 and no further costs have been identified for AMP8 as all permits are expected to be duly made by March 2025. Enhanced operational costs – No costs have been identified and therefore all cells are left blank

		<ul style="list-style-type: none"> Enhanced capital costs – No costs have been identified and therefore all cells are left blank
ADD14	25 sites listed for items classed as Other	<p>Additional detail</p> <ul style="list-style-type: none"> Base operational costs – Base operational costs have been entered by sites and by year in line with current digester cleaning programme. These costs will be incurred as part of our standard operation irrespective of the IED permits. Base capital costs – Base capital costs have been entered by site and by year. These costs will be incurred as part of the digester cleaning programme when refurbishment of assets have been identified. These costs also include those incurred as part of our existing floating roof replacement programme which will be incurred irrespective of the IED permits Enhanced operational costs – As detailed above in the base operational costs the items identified as other will be funded through the Bioresources botex and so no enhanced operational expenditure has been identified so all cells have been left blank Enhanced capital costs – As detailed above in the base capital costs the items identified as other will be funded through the Bioresources botex and so no enhanced capital expenditure has been identified so all cells have been left blank.

ADD15 - PR24 Water Industry National Environment Programme (WINEP) Cost Estimates CWW27

Data Table	Applicable to Whole Table or Individual Line/s	Commentary
ADD15	All lines	Please note, this table has been compiled using a snapshot of the live version of the WINEP, downloaded 20 August 2024. Minor changes including error corrections have been made since the last formal issue of the WINEP, therefore this represents the best view of requirements at the time of submission
ADD15	Lines 172 and 173	Action IDs and associated costs have only been referenced once in relation to their Primary Driver. With the exception of the 2 U_IMP4 (primary driver) schemes that have been referenced once under the EnvAct_IMP4 row because there was not a U_IMP4 row available. The secondary drivers for

		these schemes are EnvAct_IMP4 and are captured in the 105 secondary Action IDs referenced below.
ADD15	Applicable to Action IDs with secondary and/or tertiary drivers listed in the WINEP.	<p>Please see below for the secondary and tertiary WINEP drivers associated with the Action IDs included in the ADD15 data table. To avoid double counting of actions/costs these have not been included or referenced in the ADD15 data table. All secondary and tertiary drivers below do not require additional spend, they will be delivered by the same schemes addressing the primary drivers.</p> <p>EDWRMP_INV is listed as a secondary driver on 4 Action IDs</p> <p>EnvAct_IMP2 is listed as a secondary driver on 2 Action IDs</p> <p>EnvAct_IMP4 is listed as a secondary driver on 105 Action IDs</p> <p>WFD_IMP_MOD is listed as a secondary driver on 25 Action IDs</p> <p>WFD_IMPg is listed as a secondary driver on 32 Action IDs</p> <p>WFD_IMPm is listed as a secondary driver on 33 Action IDs</p> <p>WFD_IMPp is listed as a secondary driver on 1 Action ID</p> <p>WFD_INV_MP is listed as a secondary driver on 1 Action ID</p> <p>WFD_ND is listed as a secondary driver on 4 Action IDs</p> <p>WFD_ND_WRFlow is listed as a secondary driver on 1 Action ID</p> <p>WFD_ND_WRHMWB is listed as a secondary driver on 1 Action ID</p> <p>EnvAct_IMP4 is listed as a tertiary driver on 1 Action ID</p> <p>EnvAct_IMP5 is listed as a tertiary driver on 68 Action IDs</p> <p>WFD_IMPg is listed as a tertiary driver on 4 Action IDs</p> <p>WFD_IMPm is listed as a tertiary driver on 3 Action IDs</p>
ADD15	Lines 168, 170, 172, 184	We note that ADD15 will not show the same Totex for the schemes reported in CWW3 and CW3. Whilst filling out ADD15 we have noticed that the efficiency overlays have been double counted in CWW3 and CW3. There has been an additional efficiency of - £43.103m applied across the storm overflow and water resource programmes. The ADD15 only shows this efficiency overlay once and is therefore £43.1m higher in overall spend compared with CWW3 (-£40.936m) and CW3 (£-2.167m).

ADD16 - PR24 National Environment Programme (NEP) Cost Estimates CWW28

This table has been left intentionally unpopulated and is a Nil Return for Thames Water.

ADD17 - Sanitary determinands scheme data - CWW23

Data Table	Applicable to Whole Table or Individual Line/s	Commentary
ADD17	Line 9 and Line 12	WATLINGTON STW - 08TW101401a has been included for completeness, it is a 'permit change only' as shown in column AM. This is a no build scheme and has no expenditure associated with it. FARNHAM STW- 08TW100174a has been included for completeness, it is a 'permit change only' as shown in column AM. This is a no build scheme and has no expenditure associated with it.
ADD17	Line 20, column AP	CODICOTE CSO Annual Average Daily Flow has been estimated as 150m ³ /d. This is based on the following assumptions: 1). PE upstream of the CSO of approx. 3000 (population of the village) 2). DWF of approx. 450m ³ /d. 3). Assume 6DWF passes forward, above that spills. 4). Assume when it rains, formula A flows arrive at the CSO (on average) – formula A is 4500 m ³ /d – so when spilling there will be 4500 (formula A) minus 2700 (6DWF) spilling = 21 l/sec. 5). Average spill is 740 hours per year. 6). At 21 l/sec, that equates to 150m ³ /d on average over a year.
ADD17	Line 13, Columns AI & AJ	The historical permit level for ammonia is 1.000mg/l. This is not the current limit, however this limit will be in place in March 2025.
ADD17	Lines 9-17 Columns AG-AL	For completeness, we have entered sanitary limits for all lines where they currently exist, including where the scheme is not going to enhance the sanitary permit level. Therefore, in these instances, both the historic and enhanced permit levels remain the same.
ADD17	Lines 19 and 20 Columns X-AF	These schemes are for the CSOs at STWs. Therefore, we have left the population equivalent columns blank.
ADD17	Lines 9-29, Columns H-V	Capital and operational costs have been reviewed and resubmitted since the CWW23 sanitary table was last submitted as part of a query process.
ADD17	Lines 9-29, Columns X-AD	Population equivalent has been reviewed and resubmitted to match AR24 since the CWW23 sanitary table was last submitted as part of a query process.
ADD17	Lines 9-29, Columns AR-AT	Columns have been reviewed and updated where relevant. Additional commentary has been provided in column AT.

ADD18 - RR30 (Post DD) RORE Analysis

Introduction to the commentary and summary of RoRE risk ranges

The risk analysis technical annex summarises the methodology used to estimate the PR24 risk exposure for a notional company with Thames Water's characteristics per the regulatory package set out in the Draft Determinations (DD) and per Thames Water's DD representation.

The risk ranges presented in the technical Risk & Return annex have been mapped to table ADD18 as required by Ofwat. This section provides commentary on the approach taken to transpose estimated RoRE risk ranges into ADD18 data tables.

To complete the ADD18 table, we have followed Ofwat’s Business Plan data table guidance on additional tables for DD representation¹. There are fundamental concerns on how the ADD18 table has been set up (e.g., calculation cells) which result in a mismatch between RoRE risk ranges estimated by us and the overall RoRE risk ranges calculated per ADD18 table.

As part of the DD queries process Ofwat has stated: “do not overwrite calculation cells in the spreadsheet.”² We have followed Ofwat’s instructions and populated ADD18 table per guidance. However, we note that differences in the approach to risk analysis result in material differences in the way ADD18 calculates RoRE risk ranges and per our approach. We provide detailed commentary and explanation the differences in the approach and resulting outputs in this document.

Due to these differences in the approach, we note that the ADD18 table should be considered carefully when interpreting RoRE risk ranges.

The below tables summarise RoRE risk ranges estimated by Thames Water per Ofwat’s DD and per our DD representation (i.e., assuming our DD representation was accepted in full). We also set out a table below summarising the impact on RoRE from our DD representation (i.e., assuming our DD representation was accepted in full). Table 3 shows the difference between the two scenarios, i.e. the delta between Table 1 and Table 2.

Table 1: RoRE risk ranges for a notional company with Thames Water’s characteristics per Ofwat’s DD (unmitigated RoRE risk range)

Risk area	P10	P50	P90
Totex	-3.70%	-2.00%	-0.71%
Retail	-2.18%	-0.62%	0.46%
DPC	-0.06%	0.00%	0.00%
Mex & ODI	-5.63%	-3.93%	-3.08%
Financing	-1.80%	-0.34%	0.87%
Rev.	-0.05%	-0.03%	0.00%
QAA	-0.30%	-0.30%	-0.30%
Total RoRE	-9.77%	-7.74%	-5.62%

¹ [PR24-BP-table-guidance-part-13-New-tables-for-DD-rep.pdf \(ofwat.gov.uk\)](#)

² [PR24-Draft-determination-inbound-queries-and-responses.xlsx \(live.com\)](#)

Table 2: RoRE risk ranges for a notional company with Thames Water's characteristics per company DD representation (mitigated RoRE risk range)

Risk area	P10	P50	P90
Totex	-1.31%	-0.40%	0.43%
Retail	-0.69%	0.00%	0.34%
DPC	-0.06%	0.00%	0.00%
Mex & ODI	-1.36%	-0.45%	0.20%
Financing	-0.81%	0.00%	0.75%
Rev.	-0.05%	-0.03%	0.00%
QAA	0.00%	0.00%	0.00%
Total RoRE	-2.54%	-0.78%	0.56%

Table 3: Impact on RoRE risk range from company DD representation.

Risk area	P10	P50	P90
Totex	2.39%	1.60%	1.14%
Retail	1.49%	0.62%	-0.12%
DPC	0.00%	0.00%	0.00%
Mex & ODI	4.27%	3.48%	3.28%
Financing	0.99%	0.34%	-0.12%
Rev.	0.00%	0.00%	0.00%
QAA	0.30%	0.30%	0.30%
Total RoRE	7.23%	6.96%	6.18%

Key differences in the approach to risk analysis and implications to ADD18 table

Concern 1: Ofwat's implicit assumption of zero P50 in ADD18 table results in misrepresenting the RoRE risk ranges and the risk asymmetry (e.g., the distance from P50 to P10 and P90).

We have followed the approach to risk analysis developed by KPMG³ when estimating RoRE risk ranges for PR24. We do not implicitly assume zero or non-zero P50s in our analysis. Risk distributions in our analysis are informed by the sector-wide historical performance. This implies that P50 estimates of our risk ranges can be both positive and negative.

The ADD18 tables per DD define 'high' and 'low' scenarios as the distance of the P90 and P10 estimates from the P50. Our view of P50 risk exposure being non-zero implies that our estimated risk ranges presented in ADD18 are effectively normalised around the P50 with the negative skew of downside risk not being appropriately captured.

³ PR24 Risk Analysis for a notional company, KPMG, 2024

When populating ADD18 table for the impact on RoRE from company view of DD representation, the Ofwat's implicit zero assumption for P50, results in misrepresenting the real impact from our proposed mitigations, both on the high and low case.

Concern 2: Ofwat's assumption that RoRE risk ranges are additive results in misrepresenting the RoRE risk exposure per risk area and per total RoRE.

As part of our risk analysis, risk ranges have been simulated across base costs, enhancement costs (cost overrun and PCD risks separately), retail, ODIs (per PC separately), measures of experience (per measure separately), DPC and financing risk (interest rate risk on new and embedded debt and inflation risk separately). All risks are simulated first on individual basis and then aggregated together on a random basis through Monte-Carlo simulation. For a detailed explanation of the methodology used, please refer to the 'Analysis of PR24 risk exposure' technical appendix published alongside Thames Water's response to the Draft Determinations.

Risk ranges aggregated through the Monte-Carlo approach is more narrow than additive ranges as Monte-carlo simulation approach enables controlling for interactions between different cost performance probabilities and provides a more robust estimate of the underlying risk range.

Concern 3: Ofwat's risk categories in ADD18 table are different from risk categories considered in our risk analysis, which contributes to a mismatch between ranges calculated by ADD18 and by us.

Our risk assessment has been performed on a more granular level than the tables within ADD18. As a result, assumptions have been made in order to attribute risk components to the lines requested in ADD18. Therefore, the risk range subcomponents input into ADD18 are not always in groupings that align exactly with the risk ranges presented in technical annex for risk analysis.

The approach we have taken to complete ADD18 is described in detail below for each risk component.

Commentary

Data Table	Whole Table or Individual Line/s	Commentary
ADD18	Whole Table	<p>Financial estimates are presented in the 2022-23 price base.</p> <p>The ADD18 table has been populated by estimates for an average year in the overall price control period.</p> <p>This risk analysis estimates exposure for the entire AMP, and does not reflect the range of potential outcomes for a single year. As a result, average year estimates do not require any scaling adjustment and already capture intra-year correlations.</p>
ADD18	Whole Table	<p>Our totex risk assessment is performed on a more granular level than populating ADD18 totex lines require or Ofwat's</p>

	<p>PR24 Draft Determination approach to risk implies. ADD18 splits totex risk into the following components:</p> <ul style="list-style-type: none"> • Wholesale water costs • Wholesale wastewater costs • Retail costs • Bioresources costs • Additional control costs • Price control deliverables (PCDs) <p>Our underlying risk analysis, in addition, separates base and enhancement cost categories as well as the impact of the Aggregate Sharing Mechanism (ASM). This granular assessment of risk is important to ensure that the risk exposure inherent to each category, and the underlying input data to estimate risk parameters with, is appropriately captured.</p>
<p>RR30.1 & RR30.23, RR30.2 & RR30.24, RR30.4 & RR30.26</p>	<p>To populate ADD18, base and enhancement risk ranges were aggregated for water and wastewater controls through a Monte-Carlo simulation approach to derive the total Wholesale totex risk range in each control. Water base and water enhancement cost risks are aggregated into Wholesale water costs (RR30.1 & RR30.23). Similarly, this was done for Wholesale wastewater (RR30.2 & RR30.24) and Bioresources (RR30.4 & RR30.26).</p>
<p>RR30.3 & RR30.25</p>	<p>Retails costs lines (RR30.3 & RR30.25) in ADD18 are populated based on performance risk related to retail profit.</p>
<p>RR30.6 & RR30.28, RR30.5 and RR30.7</p>	<p>Our approach assesses the risk arising from Time incentive PCDs and Non-delivery PCDs within the enhancement risk component. These are aggregated into a PCD line (RR30.6 & RR30.28). Additional control costs (RR30.5 and RR30.7) are left blank as additional controls were not included within the risk assessment.</p>
<p>RR30.1 & RR30.23, RR30.2 & RR30.24, RR30.4 & RR30.26</p>	<p>The ASM is simulated separately at the aggregate totex level and apportioned to the Wholesale Water (RR30.1 & RR30.23), Wholesale Wastewater (RR30.2 & RR30.24) and Bioresources (RR30.4 & RR30.26) cost lines given a dedicated row is not provide within the ADD18 tables. The ASM is apportioned based on the relative sizes of each area in terms of cost.</p>
<p>RR30.7 & RR30.29</p>	<p>The ADD18 template provided by Ofwat aggregates these totex sub-components to produce totex scenario totals. It should be noted that the underlying probabilities which underpin the risk ranges for totex risk components (water, wastewater, bioresources, retail, PCDs and totex ASM) input into the ADD18 tables are not in practice fully additive for the reasons provided above. Consequently, the rows in the ADD18 tables (RR30.7 & RR30.29) which sum totex</p>

		<p>components will inherently differ from the total totex risk exposure estimates yielded from the Monte-Carlo simulations.</p> <p>Through accounting for the interactions between different components of totex performance, we provide a more robust estimate of the underlying risk range. This risk range is also narrower than the additive range as result.</p> <p>Despite this difference between simulated and additive figures, in line with guidance from Ofwat, we have not edited the formulas provided in the ADD18 template which sum risk components.</p>
ADD18	RR30.8 & RR30.30, RR30.9 & RR30.31	<p>We have assessed risk exposure separately on each common PC using data on past performance. The combined exposure for all ODIs for PR24 is based on the aggregated risk ranges of individual PCs using the Monte-Carlo simulation approach.</p> <p>ADD18 splits ODI risk into the following components:</p> <ul style="list-style-type: none"> • Water ODIs • Wastewater ODIs • Retail ODIs • Additional control ODIs <p>To populate the ODI tables in ADD18 water and wastewater ODIs are first aggregated together according to the Performance Commitment (PC) grouping provided by Ofwat. Our risk assessment also takes into account the impact of ASM attributed to expected ODI performance which is estimated based on overall expected ODI performance. Given that a dedicated ASM row is not provided within the ADD18 template, the ASM impact is apportioned to the Water (RR30.8 & RR30.30) and Wastewater (RR30.9 & RR30.31) ODI categories based on the size of the relative risk exposure of each component.</p>
	RR30.10 & RR30.32, RR30.11 & RR30.33	<p>It is assumed that there are no specific ODI categories allocated to 'retail ODIs' (RR30.10 & RR30.32) or to 'additional control' (RR30.11 & RR30.33) and therefore these rows are left empty.</p>
	RR30.12 & RR30.34	<p>Alike the overall totex risk ranges, the total exposure on ODIs is also not in practice equal to the sum of the estimated risk ranges of its sub-components (e.g., Water ODI and Wastewater ODI RoRE risk ranges) for the reasons provided above. As a result, the rows presenting ODI totals by aggregating the ODI sub-components do not provide the actual overall estimate for ODI risk exposure which is consistent with Monte-Carlo based results.</p> <p>Despite this difference between simulated and additive figures, in line with guidance from Ofwat, we have not edited</p>

		the formulas provided in the ADD18 template which sum ODI risk components.
	RR30.16 & RR30.38, RR30.17 & RR30.39	<p>We have assessed risk arising from C-MeX and D-MeX using historical sector performance and the Monte-Carlo simulation.</p> <p>ADD18 splits measures of experience into the following components:</p> <ul style="list-style-type: none"> • C-MeX • D-MeX • BR-MeX <p>C-MeX (RR30.16 & RR30.38) and D-MeX (RR30.17 & RR30.39) lines are populated based on the results from the risk simulation. Furthermore, alike ODIs, the expected ASM impact attributable to MeX-es is apportioned based on the relative size of the risk estimated for each component.</p>
	RR30.18 & RR30.40 RR30.19 & RR30.41	<p>BR-MeX (RR30.18 and RR30.40) is not included within our assessment of risk and therefore this line is left blank. Similarly to ODIs, the aggregated Measures of Experience risk totals (RR30.19 & RR30.41) estimated by the formulas within the ADD18 template are not equal to the simulated MeXes risk total estimated using the Monte-Carlo approach.</p>
ADD18	RR30.14 & RR30.36, RR30.13 & RR30.35, RR30.15 & RR30.37, RR30.21 & RR30.43	<p>In our risk analysis, the risk exposure arising from financing includes the following risk categories:</p> <ul style="list-style-type: none"> • Inflation • Cost of new debt risk • Cost of embedded debt <p>Within ADD18, the financing risk categories are:</p> <ul style="list-style-type: none"> • New debt issuance • Inflation <p>Embedded debt risk is not included as a separate line item in ADD18. Only inflation risk (RR30.14 & RR30.36) and new debt risk (RR30.13 & RR30.35) are included in the tables with these reporting lines aligning with the risk components estimated within our own assessment. Consequently, the risk ranges in ADD18 for financing (RR30.15 & RR30.37) are narrower than the actual range estimated in our assessment. To ensure the risk exposure arising from embedded debt is captured within ADD18, we have included the expected risk within the 'Other' (RR30.21 & RR30.43) category under the 'Revenue & other' risk component. Consequently, as we have not edited the formulas provided in the ADD18 template (in line with guidance from Ofwat), the total financing risk ranges are underestimated within ADD18.</p>

ADD18	RR30.20 & RR30.42	Revenue is a small component of the RoRE range. We have retained Ofwat’s proposed approach to revenue risk in its PR24 DDs, namely assuming a small downside impact, illustrated as -0.05% (low case) to reflect the impact from the revenue forecasting incentive mechanism and other sources of revenue risk such as bioresources.
	RR30.21 & RR30.43 RR30.22 & RR30.44	For the ‘Other’ category (RR30.21 & RR30.43), risk components which have not been accounted for with dedicated lines in ADD18 have been attributed to these lines. This includes risk attributed to embedded debt (as covered above), DPC and QAA penalty. Due to the inclusion of these risk components within the Revenue & Other category, the additive total (RR30.22 & RR30.44) presented within the ADD18 table is inflated above the actual risk ranges estimated in our assessment of risk for this component.
ADD18	RR30.45	The Average RCV value is taken from the financial model (RR30.45). 55% gearing has been used as a notional gearing assumption (RR30.46).
ADD18	RR30.48 - 63	<p>The ADD18 template takes the risk components provided and estimates their impact in terms of RoRE percentages for both the high and low scenarios. As discussed earlier in this commentary, these ranges are based on the distances of the P10 and P90 scenarios from the P50 whilst also taking an additive approach to estimating the total RoRE risk present (as opposed to the simulated Monte-Carlo approach we have taken to estimate total risk exposure in our assessment).</p> <p>Given our assessment of risk exposure arising from the regulatory package set out in the Draft Determinations is negatively skewed, the normalised RoRE risk percentages estimated in ADD18 (RR30.55 & RR30.63) appear more symmetrical than our own assessment of risk. Therefore, we would advice users of these tables to view this data alongside the risk ranges presented in Section 3 of this report.</p>
ADD18	RR30.64-79	<p>Rows RR30.64-79 of ADD18 request the impact of the changes proposed by companies in their representations. We have amended an error in RR30.71 which double counted the impact of Wholesale totex RoRE in the total RoRE risk impact estimation.</p> <p>To populate the risk mitigation impact for the high and low cases we have used additive estimates for each risk component as opposed to simulated ranges. We have taken this approach to align the reporting of the impact of our proposed package of mitigations with the additive approach</p>

	<p>to estimating the unmitigated DD view of risk built into the ADD18 risk tables by Ofwat.</p> <p>We have estimated the impact of the mitigations we have proposed in our representation for the low case by taking the difference between the additive P10 values in the mitigated and unmitigated scenarios for each risk component. We take the same approach for estimating the impact in the high case but use the difference between the P90 values in the mitigated and unmitigated scenarios. Therefore, these values are not measured as the distance of the P10 and P90 from the P50 for the low and high scenarios respectively.</p> <p>We acknowledge that the above approach to estimating the impact of the mitigations we have proposed is different to the approach to reporting the unmitigated company view of risk used in the rows above in the ADD18 tables (whereby Ofwat guidance states unmitigated risk is measured as the distance from the P50 for the low and high cases). The unmitigated and mitigated risk ranges presented in our assessment of risk are based on two separate Monte-Carlo simulations. In our mitigated assessment, some risk components have a narrower distance from the P50 in comparison to the unmitigated assessment. Therefore, for the purposes of reporting the expected impact of the changes we have proposed in our representation, if we were to compare the mitigated and unmitigated scenarios in terms of the distance of the P10 and P90 from P50, some of our proposals would appear to have a negative impact in the mitigated scenario where the estimated range is narrower than under the unmitigated scenario. This does not make sense, nor does it reflect our assessment of the expected impact of our proposals. Consequently, to ensure the impact of our proposals reported in ADD18 is not misleading, we have taken the approach described in the previous paragraph.</p> <p>Given the mitigated and unmitigated risk ranges have been estimated using separate simulations, marginal variation in the estimated risk may occur between some of the smaller risk components which is not the direct result of any proposals we are making. These marginal variations in simulated values result in the mitigated scenarios sometimes yielding marginally smaller P90 risk values than under the unmitigated scenario for some components (though the component will be less negatively skewed in terms of the overall risk exposure range in the mitigated scenario). Given the approach we have taken to measuring the impact of our proposals outlined above, this results in an estimated small negative impact of changes in the high case for Retail totex RoRE (RR30.65), Financing RoRE (RR30.68) and Revenue & Other (RR30.70). This is not the result of any of our</p>
--	---

		<p>proposals, rather it is the result of the simulated Monte-Carlo methodology we have undertaken and the assumptions we have needed to make to complete this table within ADD18. Given this only impacts the high case, with the negative values being proportionately small, we have left the negative values as they are to maintain a consistent approach across the table.</p>
ADD18	RR30.80-95	<p>Rows RR30.80-95 populate the overall company view of representations in terms of RoRE risk exposure in the low case and high cases using formulas built into the tables by Ofwat. In line with Ofwat's guidance, we have not edited any formulas (unless there was an error) within the ADD18 tables. However, below we provide commentary on the concerns we have regarding how this overall view has been estimated, and why the RoRE representations presented in the high and low cases is not a fully transparent representation of our assessment of the risk exposure Thames Water would face if our proposals were to be accepted by Ofwat.</p> <p>Given our assessment of P50 risk exposure is negative in both the mitigated and unmitigated scenarios, Ofwat's approach of measuring low and high RoRE risk in terms of distance from the P50 effectively understates the level of downside risk exposure present in our assessment. By normalising the risk exposure estimated in this way (defining high and low scenarios in terms of their distance from the P50), Ofwat's approach makes our assessment of risk exposure in the low scenario appear less negative whilst also making our high scenario appear more positive in magnitude. Ofwat's approach then adds the expected impact of our proposed mitigations on top of this, which then also understates our assessment of downside risk in the mitigated scenario. This results in an overall total RoRE view of risk (estimated in RR30.87 and RR30.95 within the template) appear far more positively skewed and understates the overall level of downside exposure present. In summary, this arises from the implicit assumptions made in the ADD18 tables that all risk is symmetrical and that the risk exposure for each component is the additive sum of its sub-components.</p> <p>Consequently, the total RoRE risk representations estimated in ADD18 should be viewed alongside the RoRE risk ranges we have presented in the Risk & Return technical appendix as well as the data commentary we have provided in this document.</p>

ADD19 - Wastewater network+ - Growth at STWs scheme costs and cost drivers

Data Table	Applicable to Whole Table or Individual Line/s	Commentary
ADD19		<p>This table remains largely consistent with query TMS-164. However, the following changes have been made:</p> <ol style="list-style-type: none"> 1. Andoversford cost driver 4 has been changed to 'no change'. This was stated incorrectly in TMS-164. FFT increase will be covered by the WINEP Storm Overflow driver. 2. Cassington cost driver 4 has been changed to 'no change'. This was stated incorrectly in TMS-164. FFT increase will be covered by the WINEP Storm Overflow driver. 3. Wheatley cost driver 4 has been changed to 'no change'. This was stated incorrectly in TMS-164. FFT increase will be covered by the WINEP Storm Overflow driver.
ADD19	Cost driver 14 & 15	These have been updated to include all WINEP enhancements included in our April 23 submission and subsequent updates included in our draft determination response.

ADD20 - Wastewater network+ - WINEP storm overflow scheme costs and cost drivers

Data Table	Applicable to Whole Table or Individual Line/s	Commentary
ADD20		<p>This table remains largely consistent with query TMS-262. However, the following additional columns added [by Ofwat]:</p> <ul style="list-style-type: none"> • Cost Driver 37 – 2023 EDM data • Cost Driver 19 – Screen Totex • Cost Driver 20 – SOAF investigation stage
ADD20		<p>The following sites have changes since the TMS-262 submission.</p> <p>Added:</p> <ul style="list-style-type: none"> • Benson STW (ThW0019, 11TW100007a) • BLETCHINGDON STW (ThW0025, 08TW100983a) • CHAPEL ROW (Berks) STW (ThW0043, 08TW100991a) • Constable's Piece (Beckley) STW (ThW0375, 11TW100087a) • FARNHAM STW (ThW0096, 11TW100035a) • GRENDON UNDERWOOD STW (ThW0108, 08TW101011a) • HOLMWOOD STW (ThW0122, 10TW100024a) • LEATHERHEAD STW (ThW0137, 10TW100025a) • LITTLE COMPTON STW (ThW0139, 08TW101023a) • LITTLE MILTON STW (ThW0424, 12TW100070a)

		<ul style="list-style-type: none"> • NEW STORM TANKS AT CASCADE ROAD (ThW0722, 11TW100190a) • SNAKES LANE CSO (ThW0518, 09TW100081a) • SOUTH LEIGH STW (ThW0182, 08TW101032a) • WADDESDON STW (ThW0203, 08TW101043a) • Weston (Herts) STW (ThW0209, 08TW101044a) • WILLINGALE STW (ThW0216, 08TW101048a) • WINGRAVE STW (ThW0217, 08TW101049a) <p>Name changed (Winn Valley to Chigwell Road)</p> <ul style="list-style-type: none"> • CHIGWELL ROAD, WOODFORD GREEN (ThW0472, 08TW101100a) • CHIGWELL ROAD, WOODFORD GREEN (ThW0772, 08TW101101a) • CHIGWELL ROAD, WOODFORD GREEN (ThW0773, 08TW101102a) • CHIGWELL ROAD, WOODFORD GREEN (ThW0774, 08TW101103a) • CHIGWELL ROAD, WOODFORD GREEN (ThW0775, 08TW101104a) • CHIGWELL ROAD, WOODFORD GREEN (ThW0776, 08TW101105a) • CHIGWELL ROAD, WOODFORD GREEN (ThW0777, 08TW101106a) • CHIGWELL ROAD, WOODFORD GREEN (ThW0778, 08TW101107a) <p>Removed</p> <ul style="list-style-type: none"> • ALICIA AVENUE CSO UNPERMITTED CSO (Duplicate) • Bentley (duplicate) • BOX HILL SPS • BROOK ROAD, LOUGHTON CSO • Burstow STW SPS • CASCADE ROAD STORM TANKS, BUCKHURST CSO • CHILTON FOLIAT STW • CLIFTON STW • EASTERN AVENUE, WANSTEAD CSO • GAP ROAD (CEMETERY) CSO • GREAT BEDWYN STW • KINTBURY STW • Mortimer (Stratfield) STW • New Mill (Eversley Lower Common) STW • THEYDON BOIS STW • UPPER RICHMOND ROAD, PRIESTS BRIDGE CSO
ADD20	Cost Driver 2 & 3 Cost	Table ADD19 have been updated and linked to Cost Drivers 2 & 3 from ADD20.
ADD20	WINEP	This table is consistent with the latest issue of the WINEP from the Environment Agency and represents the full storm overflow

		programme for AMP8. Sites agreed to be included in a Deliverability Mechanism will have revised capex/opex and benefit profiles.
ADD20	Cost Drivers 34 - 37	N/A indicates EDM not installed.

ADD21 - Resilience Interconnector Schemes

This table has been left intentionally unpopulated and is a Nil Return for Thames Water.

ADD22A - Overall outcome performance - Bespoke performance commitments

Data Table	Applicable to Whole Table or Individual Line/s	Commentary
ADD22A	Cell F17	<p>We have provided the number of collaborative projects delivered on an annual basis.</p> <p>The performance commitment is end of AMP and we will report the total number of projects delivered on a cumulative basis in AMP8.</p>

ADD22B - Outcome performance from base expenditure - Bespoke performance commitments

Data Table	Applicable to Whole Table or Individual Line/s	Commentary
ADD22B	Line 17	<p>The streetworks collaboration PC is 100% allocated to the Water network plus price control.</p> <p>The outperformance ODI rate has been populated.</p> <p>As this PC is outperformance only, we have not provided an ODI value for underperformance.</p>

ADD22C - Outcome performance from enhancement expenditure - Bespoke performance commitments

Data Table	Applicable to Whole Table or Individual Line/s	Commentary
ADD22C	Line 17	The Streetworks collaboration bespoke PC is 100% from Base Expenditure. 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.

ADD22D - Outcome performance - ODIs (financial)

Data Table	Applicable to Whole Table or Individual Line/s	Commentary
ADD22D	Line 17	Based PR24 wellbeing value and ODI rate which can be found on page 20-21 of 'TMS-DD-093 - Thames Water PR24 DD response - Bespoke Streetworks Performance Commitment - Collaboration in London'

ADD22E - Underlying calculations for bespoke performance commitments

Data Table	Applicable to Whole Table or Individual Line/s	Commentary
ADD22D	Line 17	Based PR24 wellbeing value and ODI rate which can be found on page 20-21 of 'TMS-DD-093 - Thames Water PR24 DD response - Bespoke Streetworks Performance Commitment - Collaboration in London'
ADD22E	Line17	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.

ADD23A - Overall outcome performance - Severe water supply interruptions common PC

This table has been left intentionally unpopulated per guidance issued by Ofwat on Thursday 1 August 2024.

ADD23B - Outcome performance from base expenditure - Severe water supply interruptions common PC

This table has been left intentionally unpopulated per guidance issued by Ofwat on Thursday 1 August 2024.

ADD23C - Outcome performance from enhancement expenditure - Severe water supply interruptions common PC

This table has been left intentionally unpopulated per guidance issued by Ofwat on Thursday 1 August 2024.

ADD23D - Underlying calculations for severe water supply interruptions common PC

This table has been left intentionally unpopulated per guidance issued by Ofwat on Thursday 1 August 2024.

ADD23E - Outcome performance - ODIs (financial)

This table has been left intentionally unpopulated per guidance issued by Ofwat on Thursday 1 August 2024.

ADD24a - Large enhancement schemes - gated process

Data Table	Applicable to Whole Table or Individual Line/s	Commentary
ADD24a	Whole table	Costs in this table are Totex
ADD24a	ADD24a.1 ADD24a.2 ADD24a.3 ADD24a.4 ADD24a.5 ADD24a.6 ADD24a.11 ADD24a.12 ADD24a.13 ADD24a.14 ADD24a.15 ADD24a.16	<p><u>Strategic Resource Option Schemes</u></p> <p><u>Project development costs (columns J to O):</u></p> <ul style="list-style-type: none"> The values contained in these columns correspond with data table CW8, specifically lines CW8.1 to CW8.5. Please refer to our CW8 Commentary for further narrative. The values include development and delivery costs beyond Gate 3 (not just development costs up to gate 3 as indicated by the column heading). These are considered Baseline allowances as set out in Ofwat's DD publication titled Major projects development and delivery (page 23) and defined for Thames Water in our PR24 DD

		<p>response document TMS-DD-B4-Strategic Resource Options.</p> <p><u>Contingent allowances (columns P to U):</u></p> <ul style="list-style-type: none"> The values contained in these columns are not within CW8 and cover (all values to nearest £m, post frontier shift efficiency, 22/23 prices): <ul style="list-style-type: none"> £277m SESRO Land: acquisition of balance of remaining land by TW rather than IP – 100% TW. £50m SESRO Enabling Works: self-delivery of selected Enabling Works by TW rather than IP – 100% TW. £28m STT G3 Early Start: re-commencing STT Interconnector G3 mid-AMP8 – 100% TW. £37m LTWLR Land: acquisition of all land by TW rather than DPC contractor – 100% TW. £77m LTWLR Delivery: self-delivery of LTWLR works in final year of AMP8 rather than DPC contractor – 100% TW. These are considered Contingent allowances as set out in Ofwat’s DD publication titled Major projects development and delivery (page 23) and defined for Thames Water in our PR24 DD response document TMS-DD-B4-Strategic Resource Options.
ADD24a	ADD24a.7, 17	<ul style="list-style-type: none"> Crypto Case. This is on Additional Line 1 of CW3, so there is no totex line for it. 6% of the total cost is shown in Project Development. 94% in contingent. Project was identified by Ofwat in the DD for inclusion in this table
ADD24a	ADD24a.8,9, 18, 19	<ul style="list-style-type: none"> SEMD case 6% of the total cost is shown in Project Development. 94% in contingent. Project was identified by Ofwat in the DD for inclusion in this table
ADD24a	ADD24a.10, 20	<ul style="list-style-type: none"> Beckton SPG. This is a botex scheme so it does not appear in CWW3 6% of the total cost is shown in Project Development. 94% in contingent.

ADD24b - Large enhancement schemes

Data Table	Applicable to Whole Table or Individual Line/s	Commentary
ADD24b	Whole table	Costs in this table are Totex, and in 22/23 costs
ADD24b	Whole table	Projects were identified by Ofwat in the DD &/or Thames Water for inclusion in this table.

ADD25 - Delivery mechanism enhancement schemes

This is a new table for the DD response. It covers the costs which also appear in CWW3 (and ADD7).

Subtracting the costs in ADD25 from the values in CWW3 (ADD7) will yield the costs in AMP8 which we are not proposing to be part of the delivery mechanism.

The Delivery mechanism only covers WINEP Storm Overflows, WINEP Chemicals, WINEP Low P, and the Industrial Emissions Directive case.



It's everyone's water