



TMS65 PR24 Data Table
Commentary -
Supplementary Tables

SUP1a - Connected properties, customers and population

SUP1b - Properties and meters

Data Table	Applicable to (table / line)	Commentary
SUP1A	Whole table	<p>Figures for 2022-23 taken from AR23, and used as a base line for the forecast, thus ensuring the most up to date numbers are used as a baseline.</p> <p>When deciding the approach to forecasting property growth, two options were considered, an ONS based forecast and one based on Local Authority growth plans.</p> <p>The decision was taken, by a group of experts across the business, to base the forecasts on Local Authority growth expectations, in line with the WRMP. It is felt that this provides a more realistic view of property increases, as the ONS based data was based on 2018 data, which missed the impact of Covid and the impact of reduced levels of house building associated with this period.</p>
SUP1A	Lines 1-4	<p>Residential property growth reflected in the table represents an average property total for each year. Total property growth during AMP8 is expected to be similar to AMP7 (452.8K during AMP8 vs 449.3K in AMP7). Numbers shown in these lines of the table will differ slightly due to the averaging calculation used, so that total residential growth during AMP8 is shown as 516.6K.</p> <p>Voids are expected to rise slightly during the period, from 3.00% at the end of AMP7 to around 3.33% by the end of AMP8, reflecting a more sustainable voids management process, and the level of empty 'investment' properties in the London area. However, the level of voids will remain lower than the start of AMP7.</p> <p>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.</p> <p>Meter penetration on the water base is expected to rise from 65% at the end of AMP7 to around 75% by the end of AMP8.</p>
SUP1A	Lines 5-8	<p>The business property base is expected to remain relatively stable during AMP8. Year 1 of AMP7 saw some big movements</p>

		<p>between the active and voids base following the Covid lockdown period, but this has since stabilised.</p> <p>The business property base is expected to shrink over AMP8, reflecting a general trend over the last couple of years, with the total number of both active and empty properties decreasing.</p>
SUP1A	Line 9	This is a calculated field based on the lines above.
SUP1A	Lines 10-12	<p>Growth in both the water and wastewater property bases has been forecasted in line with the Local Authority growth forecasts. Growth is predicted to be a little slower in AMP 8 than AMP7, partly due to the unusual level of growth experienced at the start of the current AMP in the recovery period after the Covid lockdown.</p> <p>Growth in the wastewater property base is larger than in water, reflecting comparative size of the wastewater area, where approximately one third of properties are supplied water by the four Water Only Companies who provide water within the Thames wastewater region.</p> <p>The percentage of properties served by a meter will continue to increase over AMP8, reaching c.75% by the end of the period, while voids are expected to rise from 3.00% to 3.33%, but remain lower than at start of the end of AMP7.</p>
SUP1A	Line 13-15	<p>It's expected that the number of business properties in the region will continue to decrease over AMP8, reflecting a continuation of the current trend.</p> <p>The large movement between void and active properties experienced at the start of AMP7 reflects the impact of the end of lockdown, so has not been repeated in the profiling.</p>
SUP1A	Line 16	This is a calculated field based on the lines above.
SUP1A	Line 17	<p>AR23 figures used as the baseline for the start of the forecast of household resident population.</p> <p>For wastewater, the annual movement in population includes growth based on the Edge Analytics forecast data, which is based on ONS projections. Allowance is made for irregular immigrants and short-term residents (neither of which appear in the official statistics). Judgement for both additions is based on reporting produced by Edge Analytics. It is assumed that 98% of the total population will be connected to the sewerage network.</p>

		The water population calculations follow a similar approach to those used for wastewater, but the total population reflects the smaller supply area for water.
SUP1A	Line 18	<p>The non-resident wastewater population forecast uses the AR23 calculation as a starting point. The calculation for this year incorporates information from Edge Analytics research, GBTS data detailing night visitor numbers by local authority area, and foreign visitor information from the IPS.</p> <p>The forecast utilises information published by Visit Britain, which suggests that tourism is likely to return to pre-Covid levels by the end of 2024, and a study published by Statista in July 2023, which suggests an annual growth rate of 1.58% up to 2027. This growth rate has been extrapolated to 2030 to provide the forecast.</p>
SUP1A	Line 19	<p>AR23 figures were used as the baseline for forward projection of the household water population.</p> <p>Population growth has been based on data provided by Edge Analytics, which uses ONS based projections. The non-resident population is accounted for within the resident population, with the assumption that the incoming and outgoing population movements will balance each other out. Much of the non-resident population will reside in hotels and so is excluded from the household population for the purpose of the PCC calculation.</p>
SUP1A	Lines 20-21	The total household population forecast has been split between metered and unmeasured based on the meter penetration forecast, which is expected to finish AMP8 at 74.8%.
SUP1B	Line 1	Rate of new connection growth is expected to remain stable throughout remainder of AMP7 and AMP8.
SUP1B	Line 2	Rate of new connection growth is expected to remain stable throughout remainder of AMP7 and AMP8.
SUP1B	Lines 3-6	<p>Residential property growth during AMP8 is expected to be similar to AMP7, increasing by around 30K over more over the 5 year period.</p> <p>The rate of switching increases slightly during AMP8 as the level of meter penetration grows from 65% to c.75%, while AMI metered properties as a percentage of the metered base will also increase, finishing the AMP at just under 70%.</p> <p>Voids are anticipated to rise from 3.00% to 3.33% by the end of AMP8, as we move to a more sustainable level of empty</p>

		property management, while the number of uneconomic to bill properties should reduce to zero by the start of AMP8 following the introduction of the garages tariff within the billing system.
SUP1B	Lines 7-10	<p>A greater rate of decline in the number of connected business properties is expected during AMP8, despite an increase in the number of new connections over the period. This reflects the current trend since Covid, with fewer new properties than those being disconnected, converted or demolished.</p> <p>The ratio of metered to unmeasured properties remains relatively constant and comparable with AMP7, while the number of void properties also remains relatively static.</p>

SUP4 - Green recovery expenditure - water resources and water network+

All figures included within our submitted SUP4 data table pertain to the requirement to accelerate expenditure to deliver a further 204,700 smart meters before the end of March 2025. The expenditure profile is based on our latest forecast.

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.

SUP5 - Green recovery expenditure - wastewater network+ and bioresources

This table is a nil return for Thames Water.

SUP6 - Green recovery data

Data Table	Whole Table or Individual Line/s	Commentary
SUP6	Whole Table	<p>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.</p> <p>Our forecast figures for each component have been determined by two factors, firstly, the smart meter infrastructure technology utilised and secondly, the procurement of suitable meters. Our smart meter infrastructure technology known as a complimentary solution, delivered by connecting to an existing mobile network in the Thames Valley, will support our new household and non-household replacement activity.</p>

		<p>The timelines of our procurement activity are expected to result in these meters first becoming available during December 2023. As such the timing of these installations has been phased from this date. The roll-out schedule has been agreed with the Head of Smart Meter Strategy.</p> <p>The Per Capita Consumption (PCC) numbers in PR24 Data Table SUP7 align to the supply-demand balance benefit number in PR24 Data Table SUP6. The MI/d benefit from GER smart meter installations use the same calculation approach as per WRMP forecasting and annual returns.</p> <p>The leakage numbers included in the PR24 Data Table SUP7 use the MI/d benefits from the GER meter installations only. The leakage benefits also use the calculation approach as per the WRMP forecasting and annual returns. 100% of these leakage benefits are realised in the year of meter installation. Leakage delivery is delayed post the first meter installation to allow for time to measure the benefits.</p> <p>These numbers are based on our projected meter installation forecast, these programmes are required to be flexible due to external factors. Monthly meter installations and their associated demand reduction benefits may be subject to change during AMP7 but are aiming to produce the end AMP7 results.</p> <p>This data table has been submitted presuming an agreement can be reached to delink the allowed funding from the PR19 leakage performance commitment.</p>
	Line- SUP6.3-SUP6.6	<p>All figures included within our submitted SUP6 data table pertain to the requirement to accelerate expenditure to deliver a further 204,700 smart meters before the end of March 2025. These figures are thus aligned with the information previously provided as part of our SUP4 early submission, with the following exceptions:</p> <ul style="list-style-type: none"> • Planned expenditure associated with Smarter Homes Visits, as these do not relate to the installation of new meters; and • Costs associated with the installation of 1,700 bulk supply meters as there is no line item within SUP6 for this information.”

SUP7 - Green recovery; Water common performance commitments

Our PCC benefits from GER activity shown in PR24 Data Table SUP7 differ slightly from the benefits shown in the GER Final Decision document. This discrepancy originates from an error within Thames Water’s GER response TMS-GR-RFI-014 (Table 6), which accidentally included some leakage MI/d benefit within the PCC equivalent calculation.

The PCC numbers inserted in PR24 Data Table SUP7 use the MI/d benefits from the GER meter installations and associated water efficiency activity only. The MI/d benefit from GER smart meter installations, and subsequent PCC equivalent benefits, use the same calculation approach as per WRMP forecasting and annual returns. The demand reductions from parallel GER water efficiency activity are claimed 100% within the year of activity.

The leakage numbers included in the PR24 Data Table SUP7 use the MI/d benefits from the GER meter installations only. The leakage benefits also use the calculation approach as per the WRMP forecasting and annual returns. 100% of these leakage benefits are realised in the year of meter installation. Leakage delivery is delayed post the first meter installation to allow for time to measure the benefits.

These numbers are based on our projected meter installation forecast, these programmes are required to be flexible due to external factors. Monthly meter installations and their associated demand reduction benefits may be subject to change during AMP7 but are aiming to produce the end AMP7 results.

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.

[SUP8 - Green recovery; Wastewater common performance commitments](#)

This table is a nil return for Thames Water.

[SUP9 - Green recovery; Bespoke performance commitments](#)

M01 and M02 are bespoke performance commitments that relate only to our PR19 programme.

The GER final decision did not link meter installations to an incremental contribution to the PR19 on M01 and M02 performance commitments. GER meter installations do not contribute to M01 and M02 reporting.

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.

[SUP10 - Green recovery data capture reconciliation model input](#)

Our forecast figures for each component have been determined by two factors, firstly, the smart meter infrastructure technology utilised and secondly, the procurement of suitable meters. Our smart meter infrastructure technology can be split into two solutions, one delivered by Arqiva and specific to London which will be used for our Bulk metering activity, and a second known as a complementary solution, delivered by connecting to an existing mobile network in the Thames Valley, that will support our new household and non-household replacement activity.

The timelines of our procurement activity are expected to result in these meters first becoming available during December 2023. As such the timing of these installations has been phased from this date. The Bulk programme, being delivered under the existing Arqiva solution, will be delivered from August 2023.

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.

SUP11 – Real price effects and frontier shift

Commentary requirement 13.13

- No costs have been excluded from this analysis.

Commentary requirement 13.14

RPE (SUP11.2 -11.16)

- There are no material differences between our forecast cost inflation and CPIH and therefore we are not proposing to put forward any RPE.
- For further details see Technical Appendix TMS42 – Macroeconomic environment, real price effects and other cost modelling issues.

RPE by Price Control, Base & Enhanced (SUP11.17 – 11.54)

- Weighting for RPE has been calculated by reallocating plan costs into the various different lines based on data used to build up the plan.

Frontier shift assumption (SUP11.55 – 11.62)

- Thames, alongside 13 other companies, engaged a third party, Economic Insight, to advise on the frontier shift assumption. Their conclusion was that a range of 0.3%-0.6% was justified as an assumption for PR24. The mid-range option has been used which is 0.45%.
- We have only applied the Frontier Shift Assumption to AMP8 because AMP7 is already agreed and in flight

SUP12 - Direct procurement for customers (DPC)

Data Table	Whole Table or Individual Line/s	Commentary
SUP12	Whole Table	<p>This commentary addresses the SUP12 Commentary requirements outlined in Ofwat PR24 Final Methodology submission table guidance – section 10: Supplementary Tables — Version 5 - August 2023. It details all large, individual infrastructure projects above £200m totex.</p> <p>All costs forecasts included in SUP12 are whole scheme costs and agnostic of water companies’ funding contributions.</p> <p>All cost forecasts include an appropriate allocation for risk and optimism bias. For further reference on the approach to managing risk and cost uncertainty see the “PR24 Enhancement Case Water Resources – Supply Options” appendix (TMS27).</p>
	Line 10	New Reservoir SRO - See section 1
	Line 11	Severn to Thames Transfer (STT) SRO - See Section 2
	Line 12	Teddington Direct River Abstraction SRO - See Section 3
	Line 13	Beckton Re-Use SRO - See Section 4
	Line 14	Teddington to Queen Mary Reservoir SRO - See Section 5

1 New Reservoir SESRO 150Mm3

2 Overview

The South East Strategic Reservoir Option (SESRO) SRO is being promoted and funded by Thames Water, Southern Water and Affinity Water. For AMP8 the companies have agreed to fund the development costs on a 55:30:15 basis for all components, other than Land and Property costs which are funded 100% by Thames Water. These funding splits reflect utilisation of the resource, based on the WRSE modelling underpinning PR24, and Thames Water's land acquisition strategy.

Alignment between Data Tables

The cost forecasts included in SUP12 are derived from the same project estimates used as the basis for rdWRMP Table 5a and PR24 data table CW8. The main variances between the respective tables are caused by:

- Funding contributions: SUP12 presents whole scheme costs whereas Table 5a and CW8 are the Thames Water funding contribution only.
- Spend profiles: Table 5a is based on a standard uniform profile whilst CW8 and SUP12 reflect a more detailed profile based on activities contained within the development and delivery schedules included in the RAPID Gate 2 reports.
- Duration: Table 5a adjusts durations to suit the WRSE modelling outcomes whereas CW8 and SUP12 reflect the development and delivery schedules included in the RAPID Gate 2 reports.
- Coverage: Table 5a reflects the total development and delivery cost; CW8 reflects the total development and reduced delivery cost for SIPR procurement route; and SUP12 reflects total development and delivery cost, excluding any AMP7 costs and AMP9/AMP10 delivery costs in managing the SIPR contract.
- Price Base: Table 5a costs are shown at a FY20/21 price base whereas SUP12 & CW8 are at a FY22/23 price base.
- Frontier Shift Efficiency: Table 5a and SUP12 is post-efficiency whilst CW8 is pre-efficiency.

3 Column 12.1 – Project Name

The South East Strategic Reservoir Option (SESRO) is a raw water storage option in the upper catchment of the River Thames, located near Abingdon. It provides a resilient supply of raw water to the River Thames during periods of low flow. The selected option for the Thames Water PR24 submission is the 150 Mm3 capacity variant as selected in the revised draft Water Resources Management Plan (rdWRMP) preferred plan.

The Indicative timetable currently includes the start of delivery from 1Q29 with completion in 4Q38 and commencement of operations from 1Q39. It is noted that the rdWRMP requires water to be available by 1Q40.

The scheme is referenced in the WRMP24 data tables 4, 5 and 5a-b as 'New Reservoir – SESRO 150 Mm3', option ID TWU_abingdon150.

4 Columns 12.4 & 12.5— Business Plan References

Column 12.4: in addition to business table CW8, cost information associated about this project can be found in:

- Table CW3: Lines CW3.53, CW3.54, CW3.55, CW3.56, CW3.57, CW3.58 and CW3.59
- Table PD11: Lines PD11.16
- Table PD12: Lines PD12.6, PD12.31, PD12.41 and PD12.66

Column 12.5: in addition to SUP12 Technical Appendix (titled: Direct Procurement for Customers— PR24 assessment) (TMS38) further information about this project can be found in the PR24 Enhancement Case (WRMP Supply).

5 Column 12.7 – Wholelife Totex

The whole-life total expenditure (Totex) has been derived from the sum of the Capital expenditure (Capex), Replacement Capex and Operating expenditure (Opex) costs.

Totex Cost Component	(£m) 22/23 price base
Capex	2,662.379
Replacement Capex	3,680.312
Opex	1,179.973
Totex	7,522.665

The following assumptions have been made in deriving these costs:

- The asset life (used in Replacement Capex and Opex) is based on the most significant asset with the longest useful life which for SESRO is the reservoir embankments at 250 years.
- The Replacement Capex is calculated using the initial capex cost (less non-depreciating assets such as planning, development, land and other non-depreciating assets) and repeating that cost over the maximum useful life (i.e., 250 years) based on the ACWG asset life category durations. It is assumed that there will be no renewal costs incurred in the final year of operation.
- Please refer to column 12.10 commentary for Opex assumptions.

6 Column 12.8 – Total AMP8 Project Development Cost

The guidance requires that the commentary includes a breakdown of the project development costs, as a minimum covering design, consents, land, enabling works and interface works.

Our project development costs do not include any allowances for enabling works or interface works because our delivery strategy assumes these will be undertaken and funded by the CAP, post financial close.

Excluding our allowances for DPC/SIPR the breakdown of costs is:

Component	(£m) 22/23 price base
Design (50% of development costs (excluding SIPR & L&P))	59.096
Consents (50% of development costs (excluding SIPR & L&P))	59.096
Land and Property (100% of forecast cost)	69.284
Total (excluding DPC/SIPR costs)	187.477

7 Column 12.9 – Total Construction Costs

The guidance states ‘where the project includes more than one connected asset, please provide a breakdown of construction costs by asset type’. We have treated SESRO as a standalone asset, so no further breakdown is provided here. However, it is noted that further cost details are provided in WRMP data Table 5b.

The Total Construction Costs exclude TW costs for managing the CAP contract – these are tagged as DPC related costs in accordance with the guidance covering SUP 12.8 and SUP12.14.

8 Column 12.10 – Annual Opex

The opex rate of £4.738m/annum consists of £4.341m fixed and £0.397m variable and has been calculated using an average 38% utilisation.

9 Column 12.11 – Asset Type

The main assets included in the project are:

- a fully bunded reservoir in Oxfordshire, 5km south-west of Abingdon (with total storage capacity of 150 Mm³),
- a pumping station for filling the reservoir and turbines for energy recovery during periods when the reservoir releases water to the River Thames,
- a 3.3 km long conveyance tunnel to transfer flows via the pumping station to and from the River Thames,
- an auxiliary drawdown channel to allow release of additional water from the reservoir in emergency scenarios.

Further details of the SESRO scheme are included in the Gate 2 Reports.

10 Column 12.14 – AMP8 DPC related costs

For SESRO, the DPC related costs presented are those equivalent to SIPR and are broken down into:

- Pre-contract costs: including costs to develop the project via SIPR and costs to run the procurement process.
- Post-contract costs: including costs to manage the IP and retained risk for the delivery phase.

Our SESRO development forecast is based on the project being delivered through the SIPR procurement route. For pre-contract costs we have assumed 20% of our Gate 4 and post Gate 4/pre-award elements are SIPR related costs.

This assumed percentage is made based on allocating a proportion of relevant RAPID WBS development activities as SIPR related as follows:

- 100% of the procurement category including provision for a shadow IP
- 50% of the legal category
- 20% of the project management category

The outcome is less than 1% of the headline CAPEX which falls within the range 0.5-2% included in Ofwat’s DPC consultation document from July 2022.

For post-contract costs for the delivery phase, we have assumed:

-
- managing the IP is 1% of the associated IP's construction cost.
 - retained client risk is 20% of associated construction risk & OB.

To support the IP management percentage, we considered the risks that might need to be retained or shared based on the categories and types of risk included in Ofwat's final PR24 Methodology document 'Appendix 5 Direct procurement for customers'. Using the risk tables as a guide we considered what type of resources Thames Water would need to be allocated to managing the IP contract and the retained or shared risks.

The retained client risk allowance is to fund Thames Water's retained or shared contractual risks during delivery. As it is not known what this risk profile will be, for the purposes of PR24 we have taken the view that it would be prudent to assume 20% of the costed risk and OB.

11 STT 500MI/d

12 Overview

The Severn to Thames Transfer (STT) SRO is being promoted and funded by Thames Water, Severn Trent Water and United Utilities. The STT has considered conveyance of water from the River Severn into the River Thames catchment via a new pipeline from Deerhurst to Culham or options that included restoration of sections of the Cotswold Canals. The conclusions from the Gate 2 assessment were that a water transfer from the River Severn to the River Thames would be best delivered by a direct pipeline. We have therefore presented the pipeline in SUP12.

The pipeline has both infrastructure and systems elements. Thames Water is responsible for the pipeline or interconnector project. The other partners are responsible for the infrastructure within their respective areas of operation.

All three partners share equally in the developing the systems elements. This has led the partners to agree AMP8 funding contributions TW:ST:UU on an 80:10:10 basis covering the interconnector and systems elements.

The rdWRMP preferred plan does not require the STT SRO to be delivered in the foreseeable future. The dWRMP indicated the scheme being required by around 2050's and at that time we developed cost profiles for an STT2049 scheme. But if there are difficulties in delivering the SESRO SRO or if government water efficiency policies do not reduce demand (or Per Capita Consumption) to the levels anticipated then an STT alternative would be required and for this purpose we developed the STT2039 option. This assumes work on the project ramping down in AMP7 and then, if the scheme is required as an alternative to SESRO, then ramping up activity in FY28 to deliver outputs by the late 2030's. We have used this scheme for the SUP12 data tables and this commentary.

Alignment between Data Tables

The costs forecasts included in SUP12 are for the STT2039 option, covering the development costs for the Interconnector and systems elements during AMP8 and the delivery costs for the Interconnector project only.

The cost forecasts included in SUP12 are derived from the same project estimates used as the basis for rdWRMP Table 5a. To note, the main variances between respective tables are caused by:

- Funding contributions: SUP12 presents whole scheme costs whereas Table 5a is the Thames Water funding contribution only.
- Spend profiles: Table 5a is based on a standard uniform profile whilst SUP12 reflects a more detailed profile based on activities contained within the development and delivery schedules included in the RAPID Gate 2 reports.
- Duration: Table 5a adjusts durations to suit the WRSE modelling outcomes whereas SUP12 reflects the development and delivery schedules included in the RAPID Gate 2 reports with a ramping up of Gate 3 development from FY28 – following the decision to switch from SESRO to STT, if required.
- Coverage: Table 5a reflects the total development and delivery cost; and SUP12 reflects total development and delivery cost, excluding any AMP7 costs and any AMP9/AMP10 delivery costs in managing the DPC contract.

- Price Base – Table 5a costs are shown at a FY20/21 price base whereas SUP12 is at a FY22/23 price base.

It should be noted that the funding requirement in CW8 is based on the STT2049 scheme with a ‘go-slow’ strategy for AMP8 only. This results in a ‘trickle spend’ requirement to maintain readiness to switch to STT if required and to maintain the body of data and knowledge built up during AMP7. CW8 covers the TW requirement to fund its contribution to the ‘trickle spend’. CW8 is pre-Frontier Shift Efficiency; whilst SUP12 and Table 5a is post-efficiency.

13 Column 12.1 – Project Name

The STT SRO includes several elements as described in the RAPID Gate 2 report including the Vyrnwy Bypass pipeline, various source support elements along the Rivers Vyrnwy, Severn and Avon and an interconnector project between Deerhurst on the River Severn and Culham on the River Thames.

If selected, development work would ramp up in FY28 to achieve RAPID Gate 3 by the end of AMP8 and DPC Stage 2. Development work would continue in AMP9 leading to DCO and a CAP being appointed via the DPC procurement route with construction starting in AMP9 and continuing through AMP10. The outline timeline envisages water available for use in the late 2030’s.

The scheme is referenced in the WRMP24 data tables 4, 5a-b as STT 500: 500MI/d Pipe, Netheridge & Unsupported; option ID TWU_p5-500-neth_p35.

14 Columns 12.4 & 12.5 – Business Plan References

Column 12.4: in addition to business table CW8, cost information associated about this project can be found in:

- Table CW3: Lines CW3.53, CW3.54, CW3.55, CW3.56, CW3.57, CW3.58 and CW3.59
- Table PD11: Lines PD11.16
- Table PD12: Lines PD12.6, PD12.31, PD12.41 and PD12.66

Column 12.5: in addition to SUP12 Technical Appendix (titled: Direct Procurement for Customers – PR24 assessment) (TMS38) further information about this project can be found in the PR24 Enhancement Case (WRMP Supply).

15 Column 12.7 – Wholelife Totex

The whole-life total expenditure (Totex) has been derived from the sum of the Capital expenditure (Capex), Replacement Capex and Operating expenditure (Opex) costs.

Totex Cost Component	(£m) 22/23 price base
Capex	1,536.745
Replacement Capex	1,125.382
Opex	1,647.935
Totex	4,310.063

The following assumptions have been made in deriving these costs:

- The asset life (used in Replacement Capex and Opex) is based on the most significant asset with the longest useful life which for STT is the tunnels and pipelines at 100 years.

- The Replacement Capex is calculated using the initial capex cost (less non-depreciating assets such as planning, development, land & other non-depreciating assets) and repeating that cost over the maximum useful life (i.e., 100 years) based on the ACWG asset life category durations. It is assumed that there will be no renewal costs incurred in the final year of operation.
- Please refer to column 12.10 commentary for Opex assumptions.

16 Column 12.8 – Total AMP8 Project Development Cost

The guidance requires that the commentary includes a breakdown of the project development costs, as a minimum covering design, consents, land, enabling works and interface works.

As noted above the STT2039, if required, assumes only Gate 3 activity in AMP8. Therefore, there are no allowances for land, enabling works or interface works costs.

Component	(£m) 22/23 price base
Design (50% of development cost)	24.347
Consents (50% of development costs)	24.347
Total	48.694

At this stage, for this option, we have not undertaken any detailed planning and therefore the breakdown of Gate 3 costs submitted in the STT Gate 2 Reports serves as relevant reference.

17 Column 12.9 – Total Construction Costs

If selected, STT2039 would start construction at the end of AMP9 and continue through AMP10.

The guidance states 'where the project includes more than one connected asset, please provide a breakdown of construction costs by asset type'. We have treated the interconnector component of STT2039 as a standalone asset, so no further breakdown is provided here. However, it is noted that cost breakdown by asset type is provided in WRMP data Table 5b.

18 Column 12.10 – Annual Opex

The opex rate of £16.646m/annum consists of £4.573m fixed and £12.073m variable and has been calculated using an average 23% utilisation.

19 Column 12.11 – Asset Type

The interconnector project comprises the following main components:

Component	Scope Summary	Size/Capacity
Intake structure	Screened intake on the River Severn	16 duty / 2 standby screens / 500MI/d
Low Lift Pumping Station	Low Lift (raw water) Pumping Station in proximity to the intake to deliver flow from the River Severn to the treatment works.	1.82MW/500MI/d
Water Treatment Works	Located in the Severn catchment, principally required to reduce the risk of Invasive non-native species (INNS)	500 MI/d

	transfer. Process comprises flocculation chamber and clarifiers, with the clarified water then passing through the rapid gravity filters.	
High lift pumping Station	High Lift (treated raw water) Pumping Station to deliver flow via a rising main from the WTW to the break pressure tank.	22.8MW / 500MI/d
Rising main	Pipeline from the high lift pumping Station to the break pressure tank.	1900mm diameter, ~22km / 500MI/d
Gravity pipeline	Gravity pipeline from the BPT to the outfall into the River Thames.	1600mm to 1800mm diameter, ~66km / 500MI/d
Outfall	Located on the bank of the River Thames near Culham, with cascade outfall structure, to oxygenate the water before discharge into the River Thames.	Approx 17m long and elevated 3m above ground level / 500MI/d

Further details of the STT scheme are included in the Gate 2 Reports.

20 Column 12.14 – AMP8 DPC related costs

Given the uncertainties around the need for this SRO at this stage, and even if selected, on the basis described above, the focus of activity in AMP8 would only be Gate 3 development activity, we have not separated out the DPC elements at this stage. However, the commercial forecast in the STT Gate 3 forecast represented circa 10% of the forecast Gate 3 spend. We would expect this to increase in AMP9 to c15% cover planning, preparation and procurement of a CAP via the DPC route and following the Ofwat DPC staged process.

21 Teddington Direct River Abstraction 75MI/d

22 Overview

The RAPID Gate 2 report for the London schemes presented three potential schemes at Teddington, Beckton and Mogden. The rdWRMP has selected Teddington DRA for the preferred plan.

There are risks to the delivery of the Teddington scheme and should it not be possible to adequately mitigate these risks then the best value alternative is the Beckton scheme. Consequently, Teddington and Beckton have been included in SUP12 and details of the commentary on the Beckton Sup12 data is set out in section 4.0 below.

The Teddington SRO is promoted and funded 100% by Thames Water. It has been deemed not suitable for DPC as set out in the Technical Appendix (titled: Direct Procurement for Customers – PR24 assessment) (TMS38).

Alignment between Data Tables

The cost forecasts included in SUP12 are derived from the same project estimates used as the basis for rdWRMP Table 5a and PR24 data table CW8. The main variances between the respective tables are caused by:

- Spend profiles: Table 5a is based on a standard uniform profile whilst CW8 and SUP12 reflect a more detailed profile based on activities contained within the development and delivery schedules included in the RAPID Gate 2 reports.
- Duration: Table 5a adjusts durations to suit the WRSE modelling outcomes whereas CW8 and SUP12 reflect the development and delivery schedules included in the RAPID Gate 2 reports.
- Coverage: Tables 5a and CW8 reflect the total development and delivery cost; and SUP12 reflects total development and delivery cost, excluding any AMP7 costs .
- Price Base – Table 5a costs are shown at a FY20/21 price base whereas SUP12 is at a FY22/23 price base.
- Frontier Shift Efficiency: Table 5a and SUP12 is post-efficiency whilst CW8 is pre-efficiency.

23 Column 12.1 – Project Name

The Teddington DRA SRO scheme involves additional tertiary treatment of final effluent from Mogden Sewage Treatment Works and tunnelled conveyance of the treated water to the River Thames above the Teddington weir to support direct river abstraction and conveyance to the existing Thames Lee Tunnel for transfer to the Lee Valley reservoirs.

The rdWRMP has selected Teddington DRA for 2033 in the preferred plan and consequently, the development and delivery timescales used in PR24 have been revised to those included in the Gate 2 Report.

The scheme is represented in the rdWRMP24 tables 4, 5 and 5a-b as:

Option Name	Option ID
-------------	-----------

Teddington Direct River Abstraction (Indirect Effluent Reuse) 75 MLD – (75 MI/d connection)	TWU_teddington dra 75
Direct River Abstraction – Teddington to Thames Lee Tunnel Shaft 75 MLD	TWU_teddingtondrated/tlt

The scheme is represented in the WRSE table in WRMP24 Appendix R as three connected assets as follows:

Teddington DRA Tertiary Treatment Plant – 75 MI/d output, Teddington DRA Conveyance from Mogden to River Thames (Teddington Outfall) and Direct River Abstraction – Teddington to Thames Lee Tunnel.

24 Columns 12.4 & 12.5 – Business Plan References

Column 12.4: in addition to business table CW8, cost information associated about this project can be found in:

- Table CW3: Lines CW3.53, CW3.54, CW3.55, CW3.56, CW3.57, CW3.58 and CW3.59
- Table PD11: Lines PD11.16
- Table PD12: Lines PD12.6, PD12.31, PD12.41 and PD12.66

Column 12.5: in addition to SUP12 Technical Appendix (titled: Direct Procurement for Customers – PR24 assessment) (TMS38) further information about this project can be found in the Enhancement Case.

25 Column 12.7 – Wholelife Totex

The whole-life total expenditure (Totex) has been derived from the sum of the Capital expenditure (Capex), Replacement Capex and Operating expenditure (Opex) costs.

Totex Cost Component	(£m) 22/23 price base
Capex	300.508
Replacement Capex	355.001
Opex	333.612
Totex	989.121

The following assumptions have been made in deriving these costs:

- The asset life (used in Replacement Capex and Opex) is based on the most significant asset with the longest useful life which for Teddington is the tunnels and pipelines at 100 years.
- The Replacement Capex is calculated using the initial capex cost (less non-depreciating assets such as planning, development, land and other non-depreciating assets) and repeating that cost over the maximum useful life (i.e., 100 years) based on the ACWG asset life category durations. It is assumed that there will be no renewal costs incurred in the final year of operation.
- Please refer to column 12.10 commentary for Opex assumptions.

26 Column 12.8 – Total AMP8 Project Development Cost

The guidance requires that the commentary includes a breakdown of the project development costs, as a minimum covering design, consents, land, enabling works and interface works.

Our project development costs do not include any allowances for enabling works or interface works because our delivery strategy assumes these will be undertaken post award of the delivery contracts. The costs for enabling and interface works forms part of the construction costs presented in SUP12.9

Our assessment of the breakdown of development costs is as follows:

Component	(£m) 22/23 price base
Design (50% of development costs (excl. L&P))	15.480
Consents (50% of development costs (excluding L&P))	15.480
Land and Property (100% of forecast cost)	8.069
Total	39.028

In the above table we have included the cost of land acquisition and related compensation costs. The cost is relatively small as the main recycling facility is at the Mogden sewage treatment works on Thames Water property and the land take for the conveyance outfall and abstraction structures relatively small.

We then split the remaining development cost equally between Design and Consents recognising that we propose to fund and procure the SRO in-house. For reference our RAPID Gate 3 estimate for the commercial/procurement WBS category was circa 5%.

27 Column 12.9 – Total Construction Costs

The guidance states ‘where the project includes more than one connected asset, please provide a breakdown of construction costs by asset type’.

The table below captures the Construction cost by the connected assets making up the Teddington 75Mld Solution.

Connected Assets	AMP 8 (£m) 22/23 price base	AMP 9 (£m) 22/23 price base	Total (£m) 22/23 price base
Teddington DRA 75Mld – TTP	41.27	71.13	112.391
TED Abstraction to TLT	4.72	23.22	27.938
TED Conveyance 75	31.56	61.47	93.031
Total	77.540	155.820	233.360

28 Column 12.10 – Annual Opex

The opex rate of £3.370m/annum consists of £0.926m fixed and £2.444m variable and has been calculated using an average 42% utilisation.

29 Column 12.11 – Asset Type

The Teddington SRO comprises three connected assets:

Asset	Scope Summary	Size/Capacity
Tertiary Treatment Plant (TTP) located at Mogden Sewage Treatment Works (STW)	Tertiary Treatment Plant Final Effluent Transfer Pumping Station Treated Effluent Pumping Station Wastewater Return Pumping Station Waste stream & Effluent abstraction conveyance elements	75 Ml/d

Treated Effluent Transfer Tunnel from Mogden STW to Teddington	1.8m Tunnel from TTP to River Thames above Teddington Weir for treated effluent transfer including shafts and discharge pumps	75 MI/d
River Abstraction and Thames Lee Tunnel (TLT) Connection	Raw water abstraction from River Thames including screens and pipeline to Abstraction Pumping Station Transfer pipeline to shaft connection with TLT	75 MI/d

30 Column 12.14 – AMP8 DPC related costs

For reasons given in the Technical Appendix (titled: Direct Procurement for Customers – PR24 assessment) (TMS38) Teddington does not pass the DPC discreteness test and is not considered suitable for DPC. A traditional two stage design and build procurement is proposed and so there are no DPC related costs.

31 Reuse Beckton 100MI/d

32 Overview

The Beckton SRO is an adaptive alternative scheme which can progress should the preferred scheme, Teddington DRA, be proven unviable.

If selected, the Beckton SRO would be promoted solely by Thames Water.

Alignment between Data Tables

The cost forecasts included in SUP12 are derived from the same project estimates used as the basis for rdWRMP Table 5a. The main variances between the respective tables are caused by:

- Spend profiles: Table 5a is based on a standard uniform profile whilst SUP12 reflects a more detailed profile based on activities contained within the development and delivery schedules included in the RAPID Gate 2 reports.
- Duration: Table 5a adjusts durations to suit the WRSE modelling outcomes whereas SUP12 reflects the development and delivery schedules included in the RAPID Gate 2 reports.
- Coverage: Table 5a reflects the total development and delivery cost; and SUP12 reflects total development and delivery cost, excluding any AMP7 costs.
- Price Base – Table 5a costs are shown at a FY20/21 price base whereas SUP12 is at a FY22/23 price base.

To note, CW8 includes an ‘extra over’ budget line to progress Beckton in AMP8 if Teddington becomes untenable. For clarity, the ‘extra over’ budget is in addition to the Teddington budget. CW8 is pre-Frontier Shift Efficiency; whilst Table 5a & SUP12 is post-efficiency.

33 Column 12.1 – Project Name

The Beckton SRO involves additional treatment of recycled water at Beckton through an Advanced Water Recycling Plant (AWRP) and tunnelled conveyance of the treated water to the existing King George V reservoir in east London via an extension of the existing Thames Lea Tunnel.

The scale and additional complexities of the Beckton SRO over the Teddington SRO, coupled with the Beckton SRO only being developed as an alternative solution have led, for the purposes of PR24, to a longer overall timeline with the completed facility completed in late 2033.

The scheme is represented in the rdWRMP24 tables 4, 5 and 5a-b as

Option Name	Option ID
Reuse Beckton 100MI/d (to Lockwood Pumping Station)	TWU_reuse beckton 100_lockwood
Thames-Lee Tunnel extension from Lockwood PS to King George V Reservoir intake	TWU_KGV_HI-TFR_KGV_ALL_lockwood ps-kgv res

The scheme is represented in the WRSE table in WRMP24 Appendix R as three connected assets as follows:

Beckton Effluent Recycling – Recycling Treatment Plant, Beckton to Lockwood Tunnel Conveyance and TL extension from Lockwood PS to King George V Reservoir intake.

34 Columns 12.4 & 12.5 – Business Plan References

Column 12.4: in addition to business table CW8, cost information associated about this project can be found in:

- Table CW3: Lines CW3.53, CW3.54, CW3.55, CW3.56, CW3.57, CW3.58 and CW3.59
- Table PD11: Lines PD11.16
- Table PD12: Lines PD12.6, PD12.31, PD12.41 and PD12.66

Column 12.5: in addition to SUP12 Technical Appendix (titled: Direct Procurement for Customers – PR24 assessment) (TMS38) further information about this project can be found in the Enhancement Case.

35 Column 12.7 – Wholelife Totex

The whole-life total expenditure (Totex) has been derived from the sum of the Capital expenditure (Capex), Replacement Capex and Operating expenditure (Opex) costs.

Totex Component	(£m) 22/23 price base
Capex	1,129.078
Replacement Capex	886.160
Opex	1,496.132
Totex	3,511.371

The following assumptions have been made in deriving these costs:

- The asset life (used in Replacement Capex and Opex) is based on the most significant asset with the longest useful life which for Beckton is the tunnels and pipelines at 100 years.
- The Replacement Capex is calculated using the initial capex cost (less non-depreciating assets such as planning, development, land and other non-depreciating assets) and repeating that cost over the maximum useful life (i.e., 100 years) based on the ACWG asset life category durations. It is assumed that there will be no renewal costs incurred in the final year of operation.
- Please refer to column 12.10 commentary for Opex assumptions.

36 Column 12.8 – Total AMP8 Project Development Cost

The guidance requires that the commentary includes a breakdown of the project development costs, as a minimum covering design, consents, land, enabling works and interface works.

Our project development costs do not include any allowances for enabling works or interface works because our delivery strategy assumes these will be undertaken post appointment of the CAP. The costs for enabling and interface works forms part of the construction costs presented in SUP12.9

Our assessment of the breakdown of development costs is as follows:

Component	(£m) 22/23 price base
Design (50% of development costs (excluding DPC & L&P))	34.653
Consents (50% of development costs (excluding DPC & L&P))	34.653
Land and Property (100% of forecast cost)	74.297
Total (excluding DPC costs)	143.603

In the above table we have included the cost of land acquisition and related compensation costs on the basis that at this stage we assume TW will retain title.

Excluding the DPC costs (See section 14.9 below) we split the remaining development cost equally between Design and Consents.

37 Column 12.9 – Total Construction Costs

The guidance states ‘where the project includes more than one connected asset, please provide a breakdown of construction costs by asset type’.

The table below captures the Construction cost by the connected assets making up the Beckton 100 Mld solution.

Connected Assets	AMP 8 (£m) 22/23 price base	AMP 9 (£m) 22/23 price base	Total (£m) 22/23 price base
Beckton Advanced Water Treatment Plant	33.27	256.14	289.408
Conveyance – Beckton to Lockwood	42.00	345.05	387.054
Conveyance – Lockwood to KGV	30.98	253.85	284.831
Total	106.254	855.039	961.293

38 Column 12.10 – Annual Opex

The opex rate of £15.112m/annum consists of £4.972m fixed and £10.140m variable and has been calculated using an average 42% utilisation.

39 Column 12.11 – Asset Type

The Beckton SRO comprises three connected assets:

Asset	Scope Summary	Size/Capacity
Beckton Advanced Water Treatment Plant	Final effluent abstraction - pumping station and pipeline - located within Beckton Sewage Treatment Works (STW) Advanced Water Treatment Plant located within Beckton STW	100 Ml/d
Conveyance – Beckton to Lockwood	c.13.25km new tunnel with internal diameter of 3.5m with intermediate shafts at c2.5km intervals	300 Ml/d
Conveyance – Lockwood to KGV	c.9.25km extension of the Lower Lee Tunnel with internal diameter 3.5m and intermediate shafts at c2.5km intervals	300 Ml/d

Further details of the scheme are set out in the RAPID Gate 2 Reports.

40 Column 12.14 – AMP8 DPC related costs

For Beckton, the DPC related costs are broken down into:

- Pre-contract costs: including costs to develop the project via DPC and costs to run the procurement process.
- Post-contract costs: including costs to manage the CAP and retained risk for the delivery phase.

Our Beckton development forecast is based on the project being delivered through the DPC procurement route. For pre-contract costs we have assumed 15% of our Gate 4 and post Gate 4/pre-award elements are DPC related costs.

This assumed percentage is made based on allocating a proportion of relevant RAPID WBS development activities as DPC related as follows:

- 100% of the procurement category
- 50% of the legal category
- 10% of the project management category

The outcome is less than 1% of the headline CAPEX which falls within the range 0.5-2% included in Ofwat's DPC consultation document from July 2022.

For post-contract costs for the delivery phase, we have assumed:

- managing the DPC is 1% of the associated DPC's construction cost.
- retained client risk is 20% of associated construction risk & OB.

To support the DPC management percentage, we considered the risks that might need to be retained or shared based on the categories and types of risk included in Ofwat's final PR24 Methodology document 'Appendix 5 Direct procurement for customers'. Using the risk tables as a guide we considered what type of resources Thames Water would need to be allocated to managing the DPC contract and the retained or shared risks.

The retained client risk allowance is to fund Thames Water's retained or shared contractual risks during delivery. As it is not known what this risk profile will be, for the purposes of PR24 we have taken the view that it would be prudent to assume 20% of the costed risk and OB.

41 Teddington to QM Reservoir

42 Overview

The Teddington to Queen Mary Reservoir (TQMR) SRO is a potential new SRO. The scheme would convey raw water abstracted from the River Thames near Teddington to Queen Mary Reservoir. The scheme would ensure we can abstract sufficient water at low flows to allow us to hit the 300 MI/d Teddington Target Flow in the Lower Thames Operating Agreement. The SRO is at a very early stage of feasibility and concept design. Preliminary work has been undertaken and three possible concept solutions were identified and costed for the purposes of the WRSE modelling – collectively referenced as the Lower Thames to West London Reservoirs (LT-WLR) SRO.

For the purposes of PR24 the Teddington to Queen Mary Reservoir (TQMR) solution has been reflected in SUP12.

Alignment between Data Tables

The cost forecasts included in SUP12 are derived from the same project estimates used as the basis for rdWRMP Table 5a and PR24 data table CW8. The main variances between the respective tables are caused by:

- Spend profiles: Table 5a is based on a standard uniform profile whilst CW8 and SUP12 reflect an indicative view of the likely development and delivery schedules at this early stage of project development.
- Duration: Table 5a adjusts durations to suit the WRSE modelling outcomes whereas CW8 and SUP12 reflect an indicative view of the likely development and delivery schedules at this early stage of project development.
- Coverage: Table 5a reflects the total development and delivery cost; CW8 reflects the total development and reduced delivery cost for DPC procurement route; and SUP12 reflects total development and delivery cost, excluding any AMP7 costs and AMP9/AMP10 delivery costs in managing the DPC contract.
- Price Base – Table 5a costs are shown at a FY20/21 price base whereas SUP12 is at a FY22/23 price base.
- Frontier Shift Efficiency: Table 5a and SUP12 is post-efficiency whilst CW8 is pre-efficiency.
- Table 5a and SUP12/CW8 are based on different Optimism Bias allowances.

43 Column 12.1 - Project Name

The scheme is represented in the rdWRMP24 tables 4, 5 and 5a-b as

- Option ID = TWU_WLJ_HI-TFR_WLJ_ALL_teddinqmreservoir
- Option Name = Teddington to QM Reservoir

The WRSE 2023 modelling indicates that the benefit is required by 2034-35 (FY35)

The scope of the TQMR scheme is anticipated to be an outtake structure on the River Thames upstream from the Teddington Weir, a conveyance tunnel to a Pumping Station at the Queen Mary Reservoir.

If the need for the scheme is confirmed, then it is assumed that it will be subject to the RAPID process and the outcome of more detailed feasibility studies will be presented at RAPID Gate 1 early in AMP8.

44 Columns 12.4 & 12.5 - Business Plan References

Column 12.4: in addition to business table CW8, cost information associated about this project can be found in:

- Table CW3: Lines CW3.53, CW3.54, CW3.55, CW3.56, CW3.57, CW3.58 and CW3.59
- Table PD11: Lines PD11.16
- Table PD12: Lines PD12.6, PD12.31, PD12.41 and PD12.66

Column 12.5: in addition to SUP12 Technical Appendix (titled: Direct Procurement for Customers - PR24 assessment) (TMS38) further information about this project can be found in the Enhancement Case.

45 Column 12.7 – Wholelife Totex

The whole-life total expenditure (Totex) has been derived from the sum of the Capital expenditure (Capex), Replacement Capex and Operating expenditure (Opex) costs.

Totex Component	(£m) 22/23 price base
Capex	457.555
Replacement Capex	345.247
Opex	400.279
Totex	1,203.081

The following assumptions have been made in deriving these costs:

- The asset life (used in Replacement Capex and Opex) is based on the most significant asset with the longest useful life which for TQMR is the pipeline at 100 years.
- The Replacement Capex is calculated using the initial capex cost (less non-depreciating assets such as planning, development and land) and repeating that cost over the maximum useful life (i.e., 100 years) based on the ACWG asset life category durations. It is assumed that there will be no renewal costs incurred in the final year of operation.
- Please refer to column 12.10 commentary for Opex assumptions.

46 Column 12.8 – Total AMP8 Project Development Cost

The development costs for the scheme are based on high level percentage allowances as shown on the table below, informed by the 6.4% allowance for Gates 1-4 set by Ofwat in its PR19 determination for the other SROs and Ofwat's allowances for each Gate. This approach has been taken as the project is at a pre-Gate 1 stage of development.

	Gate 1	Gate 2	Gate 3	Gate 4	Gate 4+
Percentage of Capex total	0.6%	0.9%	2.1%	2.4%	2.5%

The guidance requires that the commentary includes a breakdown of the project development costs, as a minimum covering design, consents, land, enabling works and interface works.

Our project development costs at this stage do not include any allowances for land, enabling works or interface works because we anticipate that our delivery strategy would be based on similar assumption to other SROs following the DPC route i.e., these will be undertaken and funded by the CAP, post financial close, in AMP9.

Component	(£m) 22/23 price base
Design (50% of development costs (excluding DPC & L&P))	16.392
Consents (50% of development costs (excluding DPC & L&P))	16.392
Total	32.784

For the purposes of the above breakdown, using our judgment, the costs have been split evenly between the design and consents categories which follows a similar approach for the other SRO schemes.

At this early stage of feasibility, we do not have a detailed breakdown of the development phase cost – we would do this as part of Gate 1 following the RAPID process.

47 Column 12.9 – Total Construction Costs

The guidance states ‘where the project includes more than one connected asset, please provide a breakdown of construction costs by asset type’.

The table below captures the Construction cost by the connected assets making up the LT-QMR solution.

Capex	AMP 8 (£m) 22/23 price base	AMP 9 (£m) 22/23 price base	Total (£m) 22/23 price base
Teddington to QM Reservoir Tunnel 300MI/d	-	304.17	304.168
Teddington river abstraction 300MI/d	-	66.22	66.215
Total	-	370.383	370.383

48 Column 12.10 – Annual Opex

The opex rate of £4.043m/annum consists of £0.861m fixed and £3.182m variable and has been calculated using an average 50% utilisation as an indicative allowance for this early stage of project development.

49 Column 12.11 – Asset Type

At this early feasibility it has been assumed that the TQMR SRO will be a standalone asset rather than a combination of connected assets. As noted in 5.5.2 it is envisaged that the SRO will comprise an intake, conveyance tunnel and pumping station.

50 Column 12.14 – AMP8 DPC related costs

For Teddington to QM Reservoir, the DPC related costs are broken down into:

- Pre-contract costs: including costs to develop the project via DPC and costs to run the procurement process.
- Post-contract costs: including costs to manage the CAP and retained risk for the delivery phase.

For pre-contract costs we have assumed 15% of our Gate 4 and post Gate 4/pre-award elements are DPC related costs.

This assumed percentage is made based on allocating a proportion of relevant RAPID WBS development activities as DPC related as follows:

- 100% of the procurement category
- 50% of the legal category
- 10% of the project management category

The outcome is less than 1% of the headline CAPEX which falls within the range 0.5-2% included in Ofwat's DPC consultation document from July 2022.

For post-contract costs for the delivery phase, we have assumed:

- managing the DPC is 1% of the associated DPC's construction cost.
- retained client risk is 20% of associated construction risk & OB.

To support the DPC management percentage, we considered the risks that might need to be retained or shared based on the categories and types of risk included in Ofwat's final PR24 Methodology document 'Appendix 5 Direct procurement for customers'. Using the risk tables as a guide we considered what type of resources Thames Water would need to be allocated to managing the DPC contract and the retained or shared risks.

The retained client risk allowance is to fund Thames Water's retained or shared contractual risks during delivery. As it is not known what this risk profile will be, for the purposes of PR24 we have taken the view that it would be prudent to assume 20% of the costed risk and OB.

SUP14 - Customer engagement and affordability/acceptability of business plans

Data Table	Whole Table or Individual Line/s	Commentary
SUP14	Lines 14.1-14.2	<p>The list of customer engagement projects included in our engagement counts corresponds with those referenced in our consolidated and triangulated insights document 'What Customers, Communities and Stakeholders Want, version 18.3' (TMS04).</p> <p>Key assumptions:</p> <ul style="list-style-type: none"> • The counts include our ongoing customer satisfaction Service Survey, as this was used in our insight triangulation as we developed the plan. This survey is very large, contributing 741,683 household and 16,187 non-household (unique) engagements to the totals over the period. The line 1 and 2 counts excluding the Service Survey equate to 44,209 household and 2,885 non-household engagements, of which 16,091 and 2,618 engagements respectively were specifically from PR24 focused projects. • Counts exclude repeat contacts where we know customers participated multiple times within engagement such as the Service Survey and our online community (Customer Voices). • Other forms of insight such as social media contacts and complaints are not included as those contacts are primarily initiated by the customer or are not exclusively made by our customers. • Our Your Water Your Say participants have been included based on those signing up for the event, excluding any self-defined as stakeholders. Not all will have attended the event but we shared content before and after the event and gave opportunities to ask questions to all those who signed up. • We have not included customers engaged in projects that weren't conducted or paid for by us, such as CCW's annual Water Matters survey and Ofwat's C-MeX survey, even though we used customer insights from such sources in the development of our plan.
	Lines 14.3-14.32	<ul style="list-style-type: none"> • The methodology and structure of the surveys and stimulus materials adhered to the A&A guidance, with only one exception. In the stimulus materials the bespoke future bill charts were amended following cognitive feedback - it was decided that it would benefit comprehension if totals (of bill impact plus inflation) were added above each bar on the chart showing the impact of the plan on bills. This was added with the approval of Thames Water's and Affinity Water's Independent Challenge Groups.
	Lines 14.3-14.12	<ul style="list-style-type: none"> • Not applicable to Thames Water as water-only customers make up just 1% of our customer base

Lines 14.13-14.15	<ul style="list-style-type: none"> • The data provided are derived from our quantitative survey with customers receiving both water and wastewater services from Thames Water. • The bespoke future annual bill amounts provided were calculated from indicative average annual bill of £571, shared with the Thames Water Board on 31 July. The average annual household bill for our final plan is £611. This is £40 (7%) higher than the bill tested with customers. Given the difference, if time had allowed, we would have re-tested our plan with customers to understand what effect, if any, this had on their views on affordability.
Lines 14.16-14.17	<ul style="list-style-type: none"> • The data provided are derived from our quantitative survey with customers receiving both water and wastewater services from Thames Water. • The performance data provided represented near-final performance figures as of 15 August 2023. Overall, the performance levels and outcomes that that will be delivered by our final plan are similar or better than those tested with customers.
Lines 14.18-14.20	<ul style="list-style-type: none"> • Not applicable to Thames Water as we do not send separate wastewater-only bills to wastewater-only customers
Lines 14.21-14.22	<ul style="list-style-type: none"> • The data provided are derived from our quantitative survey with customers receiving wastewater services from Thames Water in the Affinity Water supply area, as this area makes up 21% of our overall household customer base (same % for our household and non-household customer base) • We did not survey our wastewater customers in other water supplier areas, as each of these areas represents under 10% of our overall household customer base (same %s for our household and non-household customer base) – South East Water – 6% of our customers; Sutton & East Surrey Water – 5% and Essex & Suffolk Water – 4%. • The performance data provided represented near-final performance figures as of 15 August 2023. Overall, the performance levels and outcomes that that will be delivered by our final plan are similar or better than those tested with customers.
Lines 14.23-14.25	<ul style="list-style-type: none"> • The data provided are derived from whole bill affordability results from Affinity Water’s quantitative survey testing our wastewater bill together with their water bill. • South East Water and Sutton & East Surrey Water also tested our wastewater bill together with their water bills, but the results of this testing were not available in time to include within our submission for this data table. • The bespoke future annual bill amounts tested by Sutton and East Surrey Water (results not included in our submission) and Affinity Water were calculated from indicative average annual wastewater bill values for our ‘Proposed plan’ shared with customers in our qualitative research in April and May 2023 (Household bill of £252 by 2029/30, excluding inflation), and were therefore different to the bill amounts tested by South East Water (results not included in our submission) and in our own

		surveys (Household bill of £280 by 2029/30, excluding inflation), due to fieldwork being carried out before our revised bill figures were available.
	Lines 14.26-14.27	<ul style="list-style-type: none"> • Not applicable to Thames Water as no wastewater-only customer was shown both our wastewater and a Water-Only Company water plan
	Lines 14.28-14.30	<ul style="list-style-type: none"> • The data provided are derived from combined results from the preceding tables, weighted together according to the number of household customers served in each area represented, to these weights: <ul style="list-style-type: none"> • Water and wastewater customers 75.6% • Wastewater customers (Affinity Water who tested our wastewater bill with their water bill) 24.4% • When we talk about % of customers finding the business easy to afford we use 20% (as per SUP14_30_10_PR24) • When we talk about % of customers finding the business plan difficult to afford we use 48% (as per SUP14_29_10_PR24)
	Lines 14.31-14.32	<ul style="list-style-type: none"> • The data provided are derived from combined results from the preceding tables, weighted together according to the number of household customers served in each area represented, to these weights: <ul style="list-style-type: none"> • Water and wastewater customers 75.6% • Wastewater customers (Affinity Water area where we tested our wastewater-only plan) 24.4% • When we talk about % of customers finding the business plan acceptable we use 65% (as per SUP14_32_10_PR24) <ul style="list-style-type: none"> • When we talk about % of customers finding the business plan unacceptable we use 20% (as per SUP14_31_10_PR24)

SUP15 - Affordability - residential customers

Data Table	Whole Table or Individual Line/s	Commentary
SUP15	Whole Table	<p>The SUP15 table breaks down customers into dual service, water only and wastewater only.</p> <p>Our directly billed customers are principally dual service (97.35%), with 1.36% water only and 1.29% wastewater only based on 22/23 volumes.</p> <p>Where data is not available separating out these service types, we have used these percentages to distribute the total volume of customers benefiting between service types.</p> <p>Where schemes are not available to waste only customers the percentages have been adjusted to 98.63% dual service and 1.38% water only.</p>

	Whole Table	<p>In 22/23, 35.6% of our total customer base are wastewater only. However, almost all are billed by the Water Only Company (WOC) for that region on our behalf and we have less opportunity to influence customer outcomes which are driven by the billing water companies' plans and commitments.</p> <p>Where we are aware that our WOC partners offer similar schemes, we have taken our billed wastewater numbers and then added the volume of customers billed by our WOCs to give a combined wastewater only total.</p>
	Whole Table	<p>Where we have specific information that breaks out the water and waste elements of bills or other values, we have quoted these.</p> <p>Where these are not available, we have assumed the same split as 22/23 bills, that is the water element makes up 54.8% of a customer's bill and 45.2% is the waste element. This includes a pro rata element of Retail charges.</p>
	Whole Table	<p>We have engaged with our WOCs to inform the impact on our wastewater numbers. However, their plans and the values shared are constantly changing as they shape their own plans in readiness for their own PR24 submissions.</p> <p>We've used best endeavours to ensure that numbers we've used for WOCs are directionally correct, but aren't able to validate our own submission with any recent changes in plans of our WOCs.</p>
A1	Social Tariffs and WaterSure	
	15.1, 15.2, 15.3	<p>Our social tariff forecasts for growth include the transition away from our current eligibility criterion based on low income to one based on the Affordability Threshold for our billed customers. For WOC billed customers we have made our assessment of growth based on historical trends and engagement with the WOCs. Data from Affinity Water (who support 61% of our WOC wastewater customers) has been more accessible than other WOCs, so we have based some assumptions for other WOCs future volumes on Affinity's data.</p> <p>Our affordability model shows that across our three proposed discount tiers of 25%, 50% and 75% the average discount is £436 in the final year of AMP8. This equates to 40% of the average bill of £1,000 for those receiving a discount, in 22/23 prices. This is a higher bill than the average overall due to the Affordability Threshold being used as an eligibility criteria.</p> <p>Despite our current low-income scheme's flat 50% discount being a higher average discount in terms of a percentage, the financial value of support per low-income customer is lower, at £307 at the end of AMP8, due to the low income criteria targeting criterion selecting customers with lower bills.</p>

		<p>The number of customers benefiting from WaterSure during AMP7 has not grown significantly due to customers often being better off on our social tariff along with the very targeted criteria for WaterSure compared to our social tariff's broader eligibility. We expect our Thames Water billed WaterSure numbers to grow by 165% by 29/30. This is due to a combination of increased numbers moving to metered billing in AMP8, the introduction of our tiered block tariff in 2027, more customers becoming aware of the support who had previously not been engaged, and by plans to use data more proactively.</p>
	15.4, 15.8, 15.9	<p>Our cross-subsidy mechanisms become more complicated in 2027 with the introduction of our rising block tariff. Instead of being a flat figure across all households this is now split with up to £23 being collected from all customers and the equivalent of up to £15 across all households being collected from the 8% of metered households that will end up paying the 'excessive use' tier. Accounting for metering roll out the equivalent of £37 of cross subsidy across all households has been calculated.</p>
	15.10	<p>We do not anticipate that Thames Water's shareholders will subsidise customer cross subsidies during AMP7 or AMP8.</p>
	15.11 and 15.12	<p>We have generous levels of cross subsidy, supported by our customers, but not enough to support all those needing help with bills. From 27/28 we expect to use additional funding from our new tiered block tariff to support additional customers with discounts, reaching 73% of the eligible population as described above.</p>
A2	Vulnerability 15.13, 15.14, 15.15, 15.16, 15.17 and 15.18	<p>We currently only hold details of our billed households on the PSR. The PSR reach percentage is calculated by comparing our PSR households against the total households served, including our wastewater households billed by WOCs. It is our intention to add in details of our WOC billed wastewater households from 26/27. Currently Our PSR is a master within our billing system and as we don't directly bill our waste only customers, we have no system to support this data.</p> <p>The increase for the groups in 15.14 -15.18 mirrors the growth forecast in 15.13.</p>
	15.19 and 15.20	<p>We expect to maintain our current levels of attempted and actual contact for our PSR despite the challenges created from a significant increase in PSR reach.</p>
B1	Income Deprivation	<p>By 2030 our affordability support for directly billed customers lifts 63% of those below the Affordability Threshold, up from 34% in 2022/23. We have calculated these figures for our billed customers using the model built for us by BRG ^[3] described in section 3.3 of the Bill impact, affordability and vulnerability appendix.</p>

As the principal reason to construct the model was to design and test our social tariff we didn't include wastewater only customers within the model scope, as we are unable to control the tariff parameters for customers billed by WOCs. Therefore, to estimate the volume of waste only customers below the Affordability Threshold we have used the same ratio of the population from our model for billed customers (5.5% in 2023) but then reduced this by the relative difference in income deprivation between our billed area and the WOCs.

We have estimated the relative difference in income deprivation by taking the ONS income deprivation score for the WOCs supplied by Ofwat and then calculated a weighted average based on households served (9.810%). We then compared this to the Thames Water income deprivation score (11.806%).

The principal proposition to lift a customer above the Affordability Threshold are social tariffs. However, with WOCs expected to remain with low-income eligibility criterion only 42% of these social tariff recipients will also be below the Affordability Threshold. Therefore, to estimate the number of wastewater only customers lifted above the Affordability Threshold we have used the volume of WOC social tariff customers and multiplied it by 42%, giving a figure of 27% of the population below the threshold being moved above the threshold by 2030. This assumes that every social tariff recipient, if also below the Affordability Threshold, is lifted above the threshold with the discount provided.

As a result of our broad range of support the average dual service bill of income deprived customers is reduced by 59% by 29/30. This is achieved through funding of £174.6m/year by 2030, from the sources shown in table 15.B1.

Source	Level in 2029/30
Social tariff cross subsidies (in later years a combination of flat subsidies and innovative tariffs)	£148.2m
WaterSure customer cross subsidy	£11.9m
Innovative charges	£6.1m
Targeted demand side support – water efficiency	£2.1m
Switch of metering basis	£0.5m
Other (Payment Matching / Debt Relief)	£5.8m
Total	£174.6m

Table 15.B1. Sources of funding to support customers

		While WOCs may well introduce innovative tariffs we felt it was simpler to exclude any benefits for wastewater only customers as we are not able to implement new tariffs without WOC agreement.
B2	Innovative Charges	<p>It's our intention to pilot a tiered rising block tariff in 2025/26, so entries before this are entered as zeros. The years 2025/26 and 2026/27 will be an opportunity to pilot the schemes with a meaningful number of customers (expected to be c.10,000), after which we will refine the schemes ready for full adoption from 27/28.</p> <p>We don't intend to apply the innovative charging to customers that are billed for wastewater charges by either our WOCs or for wastewater only by Thames Water as we are not the billing or metering organisation.</p>
B3	Targeted demand side support	<p>Section B3 – Targeted demand side support</p> <p>Our targeted demand side support is documented in more detail within our Water Resources Management Plan Appendix.</p> <p>Our approach to reduce demand is driven by water efficiency outcomes and are not targeted by affordability drivers with the exception of a proportion of our smarter home visit programme, where practical water efficiency advice and installation of fixtures are undertaken. Therefore benefits for income deprived households can be pro-rated across the income deprived metered population as typically income and water consumption are not strongly related. 25% of our smarter home visits are targeted at income deprived households as well as water efficiency and therefore this element of our programme is not pro-rated but applied in totality.</p> <p>Our water efficiency programme includes replacing dumb meters with smart meters, our digital engagement tool, the Green Redeem programme and smarter home visits.</p> <p>We also provide a free customer side leak repair policy for customers in receipt of our social tariff. Our smart Customer Side Leak (CSL) journey for those with smart meters provides prompt engagement with customers to reduce continuous flow due to the regular analysis of data. This allows customers to act more quickly and we see 88%^[4] of leaks being fixed by a customer without further support from Thames Water. Without this smart meter enabled proactive and prompt engagement from Thames Water customers would be paying for the consumption of water.</p> <p>We estimate the customer bill reduction benefits of this approach are reduced by 19% due to the impact from social tariff and innovative tariffs. This considers our social tariff growth, the 42% overlap between income deprived households and the low income social tariff eligibility and the 2027 roll out of innovative tariffs. The average</p>

		<p>£41.29 reduction per income deprived household is split from these initiatives as shown in table 15.B3</p> <table border="1" data-bbox="566 309 1433 815"> <thead> <tr> <th data-bbox="566 309 1003 416">Water Efficiency Proposition</th> <th data-bbox="1003 309 1433 416">Drivers of £43 bill impact reduction on income deprived households</th> </tr> </thead> <tbody> <tr> <td data-bbox="566 416 1003 456">Smart meter replacements</td> <td data-bbox="1003 416 1433 456">9.6%</td> </tr> <tr> <td data-bbox="566 456 1003 497">Digital Engagement tool</td> <td data-bbox="1003 456 1433 497">4.5%</td> </tr> <tr> <td data-bbox="566 497 1003 537">Green Redeem</td> <td data-bbox="1003 497 1433 537">0.2%</td> </tr> <tr> <td data-bbox="566 537 1003 609">Non targeted Smarter Home Visits</td> <td data-bbox="1003 537 1433 609">12.3%</td> </tr> <tr> <td data-bbox="566 609 1003 649">Targeted Smarter Home Visits</td> <td data-bbox="1003 609 1433 649">17.1%</td> </tr> <tr> <td data-bbox="566 649 1003 689">Wastage fixes</td> <td data-bbox="1003 649 1433 689">2.6%</td> </tr> <tr> <td data-bbox="566 689 1003 730">Free CSL repairs</td> <td data-bbox="1003 689 1433 730">29.4%</td> </tr> <tr> <td data-bbox="566 730 1003 770">Smart CSL engagement</td> <td data-bbox="1003 730 1433 770">24.3%</td> </tr> <tr> <td data-bbox="566 770 1003 815">Total</td> <td data-bbox="1003 770 1433 815">100.0%</td> </tr> </tbody> </table> <p>Table 15.B3 Distribution of savings totalling to £42.52 per income deprived household from water efficiency approaches.</p> <p>Our Optant meter journey provides savings for those who recognise that their consumption would create a lower bill compared to rateable value. While the volume of income deprived Optant meter households is less than the income deprived compulsory Progressive Metering Programme (PMP) households at 2,000 and 6,000 per year respectively, the annual bill savings for Optant's are higher at £261 compared to £17 for PMP. Net of social and innovative tariffs, together this averages £63 per income deprived, dual service, household.</p> <p>While these savings continue for at least 3 years we have only included one year of savings in the calculations.</p>	Water Efficiency Proposition	Drivers of £43 bill impact reduction on income deprived households	Smart meter replacements	9.6%	Digital Engagement tool	4.5%	Green Redeem	0.2%	Non targeted Smarter Home Visits	12.3%	Targeted Smarter Home Visits	17.1%	Wastage fixes	2.6%	Free CSL repairs	29.4%	Smart CSL engagement	24.3%	Total	100.0%
Water Efficiency Proposition	Drivers of £43 bill impact reduction on income deprived households																					
Smart meter replacements	9.6%																					
Digital Engagement tool	4.5%																					
Green Redeem	0.2%																					
Non targeted Smarter Home Visits	12.3%																					
Targeted Smarter Home Visits	17.1%																					
Wastage fixes	2.6%																					
Free CSL repairs	29.4%																					
Smart CSL engagement	24.3%																					
Total	100.0%																					
B4	Other affordability support measures that reduce bills	<p>Section B4 – Other affordability support measures that reduce bills for customers struggling to pay their bills</p> <p>While we have a long-standing Hardship Fund delivered by the Thames Water Trust Fund and funded by Shareholders, this does not reduce customer's bills, instead providing essential household goods and debt advice.</p> <p>We don't write off customer's charges during their application for Universal Credit. Delays in application for benefits are less prevalent now and we have other mechanisms to support this group and find more appropriate billing levels over a longer term, including social tariffs and forbearance plans which include payment breaks.</p>																				

		<p>Our payment matching scheme has been in place since 2020 and helps customers with water debt to clear their balance to zero after two years, subject to them paying their current bill and a small contribution to their water debt. Making regular payments also helps with their credit ratings. The numbers have grown steadily since inception to around 7,000 on the scheme today.</p> <p>We expect numbers to grow to a steady 10,000 on the scheme throughout the remainder of AMP7 and AMP8. Although we understand one or more of our WOC partners may be considering a similar scheme, we have no certainty they will introduce this to their Thames Water waste customers and have therefore assumed zeros in the tables.</p> <p>We also intend to introduce a new Debt Relief scheme in 24/25 which will create a new variant of the payment matching scheme accessible to a new group of customers, specifically those whose struggle to pay their water bill each year and have accumulated water debt for four years or more. This variance from the current scheme is that this would be open to those who cannot pay their current charges in full, as described in section 5.3 of the Bill Impact, Affordability and Vulnerability Appendix. We expect to start the scheme with around 5,000 customers a year, reducing to 3,900 by 29/30 as the number of long-term debtors reducing due to the scheme.</p> <p>We expect the average value to customers of the combined matching schemes to be £328 per year in 23/24, rising to £432 by 29/30. The average debt paid down by Thames Water is over £800 per household, but for the current payment scheme this is over two years.</p> <p>We have used the 'other measures' section to include the work we have done to distribute household support grants from Local Authorities. Few Local Authorities engaged with our offers to support the distribution of these schemes and so we have been limited to 305 customers and £114k. This section also includes our 'Extra Support Scheme' which was designed in consultation with CCW in response to the Cost-of-Living crisis and the growth in households with deficit budgets. Some of these customers will be in this situation of needing extra support while wages lag behind price increases and this scheme puts our social tariff cross subsidy to work while there is spare capacity. We anticipate this scheme closing at the end of 25/26 as inflation rates reduce and our cross-subsidy capacity it utilised through our social tariff growth.</p>
B5	Other affordability	

	support measures that do not reduce bills	
	15.41, 15.42,	<p>While the support provided by income maximisation, debt advice, hardship fund referrals, payment breaks, forbearance plans and deferrals does not reduce bills it will support customers to create more sustainable household budgets and increase engagement.</p> <p>In a recent piece of research 73%^[5] of customers said they would be loyal to a company if they supported them through debt. We have estimated a bad debt benefit for these propositions in section B8.</p>
	15.43	Our Hardship Fund (part of the Thames Water Trust Fund) falls under this category. It primarily benefits our dual billed customers. We aren't able to track referrals by our WOC partners and believe that these and our water only billed numbers are very small, so have entered water and waste as zeros in 15.43.
B6	Total benefit of affordability support measures	Similar notes apply as to B1 above.
B7	Total funding of affordability support	Our funding is largely generated through customers via a cross subsidy applied to bills of all customers. The exceptions to these are our payment matching schemes (line 15.51) where we pay down debt for customers and have foregone cash from billed accounts that may have been recovered through our cash recovery processes, and a small amount of funding we distribute on behalf of Local Authorities in respect of Household Support Grants (line 15.57).
B8	Impact of affordability measures on bad debt	
	15.59, 15.60	<p>To estimate the bad debt impact of these measures we have estimated a cash collection improvement per customer, per scheme. We have then assessed at what level this cash would have otherwise been provisioned for, if it had not been collected. Multiplying this provisioning rate by the cash improvement per customer gives a bad debt benefit which we can then multiply by the number of households benefiting. This gives us the value of line 15.60.</p> <p>Our bad debt forecast through to 2030 is based on top-down analysis, with affordability support integral to our position. Therefore, we have used this as our bad debt forecast net of affordability support (line 15.61).</p> <p>To get to a bad debt estimate without affordability support (line 15.59) we have added the bad debt value of our support</p>

		<p>propositions (line 15.60, described above) to our bad debt forecast (line 15.61).</p> <p>Table 15.B8 below provides the bad debt assumptions per household in receipt of support.</p> <table border="1" data-bbox="568 456 1252 1171"> <thead> <tr> <th data-bbox="568 456 932 600">Proposition</th> <th data-bbox="932 456 1252 600">Average bad debt benefit per customer dual bill customer receiving the support</th> </tr> </thead> <tbody> <tr> <td data-bbox="568 600 932 712">Social Tariff</td> <td data-bbox="932 600 1252 712">11.7% for every £1 of cross subsidy, equates to:</td> </tr> <tr> <td data-bbox="568 712 932 745">- Low Income</td> <td data-bbox="932 712 1252 745">£25.00</td> </tr> <tr> <td data-bbox="568 745 932 779">- Bill to Income ratio</td> <td data-bbox="932 745 1252 779">£35.00</td> </tr> <tr> <td data-bbox="568 779 932 813">WaterSure</td> <td data-bbox="932 779 1252 813">£44.14</td> </tr> <tr> <td data-bbox="568 813 932 846">Innovative charges</td> <td data-bbox="932 813 1252 846">£6.10</td> </tr> <tr> <td data-bbox="568 846 932 880">Water Efficiency measures</td> <td data-bbox="932 846 1252 880">£18.50</td> </tr> <tr> <td data-bbox="568 880 932 913">Move to metered tariffs</td> <td data-bbox="932 880 1252 913">£10.08</td> </tr> <tr> <td data-bbox="568 913 932 947">Payment matching</td> <td data-bbox="932 913 1252 947">£434.45</td> </tr> <tr> <td data-bbox="568 947 932 981">Extra Support Scheme</td> <td data-bbox="932 947 1252 981">£44.30</td> </tr> <tr> <td data-bbox="568 981 932 1093">Income Max and Advice referrals</td> <td data-bbox="932 981 1252 1093">£32.00</td> </tr> <tr> <td data-bbox="568 1093 932 1171">Payment breaks and plans</td> <td data-bbox="932 1093 1252 1171">£0</td> </tr> </tbody> </table> <p>Table 15.B8. Assumed annual bad debt benefit for each dual service customer on our different support offerings</p>	Proposition	Average bad debt benefit per customer dual bill customer receiving the support	Social Tariff	11.7% for every £1 of cross subsidy, equates to:	- Low Income	£25.00	- Bill to Income ratio	£35.00	WaterSure	£44.14	Innovative charges	£6.10	Water Efficiency measures	£18.50	Move to metered tariffs	£10.08	Payment matching	£434.45	Extra Support Scheme	£44.30	Income Max and Advice referrals	£32.00	Payment breaks and plans	£0
Proposition	Average bad debt benefit per customer dual bill customer receiving the support																									
Social Tariff	11.7% for every £1 of cross subsidy, equates to:																									
- Low Income	£25.00																									
- Bill to Income ratio	£35.00																									
WaterSure	£44.14																									
Innovative charges	£6.10																									
Water Efficiency measures	£18.50																									
Move to metered tariffs	£10.08																									
Payment matching	£434.45																									
Extra Support Scheme	£44.30																									
Income Max and Advice referrals	£32.00																									
Payment breaks and plans	£0																									

^[1] [PR24 Methodology Statement Affordability v20230606.docx](#) Key assumption 1, page 6

^[2] Calculated from 22/23 average bills of £423 which are made up of £232 water and £191 waste, see table 12 on page 37 of our [charges document](#)

^[3] BRG [Model methodology](#)

^[4] Smart CSL Master Claims records

^[5] [Capita: Treating customers fairly in collections](#)



It's everyone's water