



Accounting Methodology Statement 2022/23

July 2023



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Section 1

Introduction

- 1.0 The purpose of this methodology statement (“The Statement”) is to explain the systems, processes and allocation methods used to report costs in the following financial tables in the Annual Performance Report (“APR”) for the year ended 31 March 2023:

APR Section 2: Price review and other segmental reporting:

- 2A – Segmental income statement;
- 2B – Totex analysis – Wholesale;
- 2C – Cost analysis - Retail; and
- 2D – Historic cost analysis of tangible fixed assets – Wholesale Water, Wholesale Wastewater & Retail.
- 2O – Historic cost analysis of intangible fixed assets - Wholesale Water, Wholesale Wastewater & Retail.

APR Section 4: Additional regulatory reporting:

- 4D – Totex analysis – Water resources and water network+; and
- 4E – Totex analysis – Wastewater network+ and bioresources.

- 1.1 These tables are referred to as the ‘Section 2 tables’ and ‘Section 4 tables’ throughout this document. Tables have been prepared in accordance with the principles and guidance set within the Regulatory Accounting Guidelines (“RAGs”). This methodology explains the Wholesale upstream services and Price Control methodology approach as stated per RAG 3.14 and therefore does not cover the approach used for the more detailed splits in the cost assessment tables.

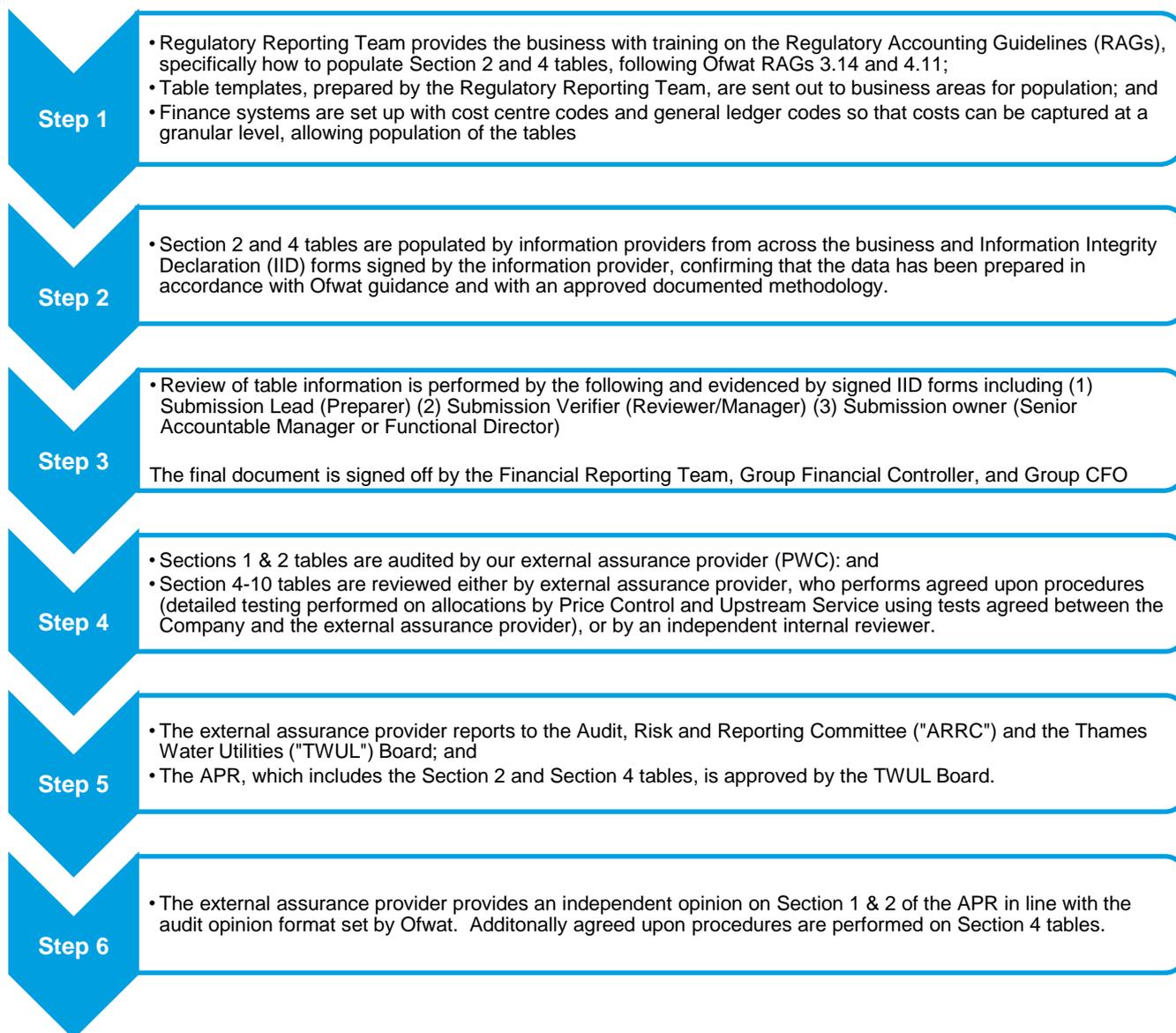
A Scope

- 1.2 This Statement relates to the Thames Water Utilities Limited appointed business and costs only. This statement should be read in conjunction with the following documents:
- IN 23/03 Expectations for monopoly company annual performance reporting 2022-23;
 - RAG 2.09 ‘Guideline for the classification of costs across the price controls’;
 - RAG 3.14 ‘Guideline for the format and disclosures for the annual performance report’;
 - RAG 4.11 ‘Guideline for the table definitions for the annual performance report’;
 - RAG 5.07 ‘Guideline for transfer pricing in the water and sewerage sectors’; and
 - 2021-22 Annual Performance Report (<https://corporate.thameswater.co.uk/about-us/our-investors/annual-results>).

B Governance

- 1.3 We have a robust governance framework around the production of the APR. This is applicable to Section 2 and Section 4 tables. Our governance framework supports our commitment to our customers and stakeholders to publish information that is complete, accurate, reliable, and transparent.
- 1.4 The specific governance processes that accompany the production of Section 2 and Section 4 tables are outlined below:

Figure 1 - Governance Process



Source: Thames Water

Section 2

Operating Systems, Structure and Outsourced Contracts

A Operating Systems

2.0 There are three key systems used for the population of Section 2 and Section 4 tables:

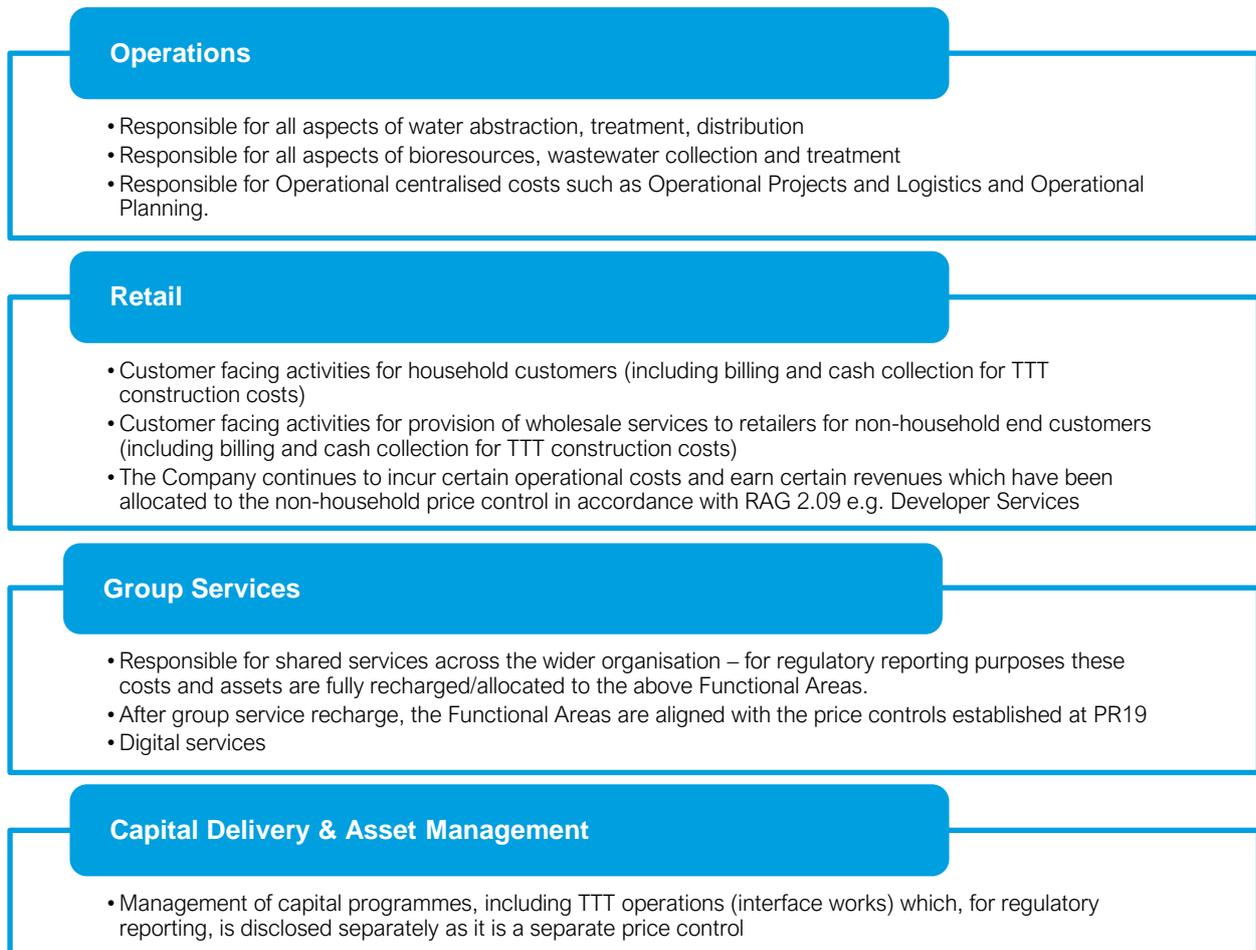
- SAP: the primary financial accounting and management tool used by the business;
- HFM: used to consolidate financial information held with SAP on a cost centre and general ledger line basis;
- SAP Analytics Cloud (SAC): (implemented in 2021) is the system used for allocating operating expenditure (“Opex”) to upstream service (“US”) levels.

B Operating Structure

2.1 Our business is structured into a customer journey led organisation. This means that our business is structured in a way that customers want to see us - as ‘One Thames Water’ - a single organisation with clear lines of accountability for delivering the end-to-end customer experience. This helps to make sure that all parts of the business are focused on delivering high quality water and wastewater services, 24 hours a day, 365 days a year and collaborating to proactively resolve customer issues - ensuring we are providing an overall service that is personal, affordable, valued and right first time.

2.2 In July 2016 we announced our decision to exit the non-household retail market from the date of market opening (1 April 2017). The Company entered an agreement to transfer ownership of its non-household customers to Castle Water at this time. We continue to provide wholesale services into the non-household market.

Figure 2 - Functional Areas



Source: Thames Water

- 2.3 For 2022/23 reporting RAG 4.11 Section 2 requires disaggregation for both Water and Wastewater into the below Price Controls. This structure is defined by Ofwat and is reflected in our SAC regulatory model.

Table 1 - Price Control unit and Upstream Service levels

Price Control Unit	Upstream Service Unit
Water Resources	<ul style="list-style-type: none"> • Water resources
Water Network Plus	<ul style="list-style-type: none"> • Raw water transport • Raw water storage • Water treatment • Treated water distribution
Wastewater Network Plus Sewage collection	<ul style="list-style-type: none"> • Foul • Surface drainage • Highway drainage
Wastewater Network Plus Sewage treatment	<ul style="list-style-type: none"> • Sewage treatment and disposal • Sludge liquor treatment
Bioresources	<ul style="list-style-type: none"> • Sludge transport • Sludge treatment • Sludge disposal

Source: Thames Water

- 2.4 Our main systems, SAP and SAC, use cost centres (“CC”) as a way to capture costs at the lowest possible level by service area. Management have aligned the SAP CC hierarchy to the regulatory structure down to upstream service level where possible. Where the activity of a CC is 100% attributable to one of the units listed above, and allocation of costs is not required, the cost centre is mapped, within SAP and SAC, directly to that unit.
- 2.5 Where the activity of a CC is not 100% attributable to an upstream service unit, the operating expenses of those cost centres are allocated based on the underlying activity of the cost centre. This requires using management judgement and cost drivers.
- 2.6 Typically, costs that are required to be allocated are either:
- Costs that are held at a site or regional level (e.g. treatment works), where the activity straddles more than one of the upstream service activities;
 - Costs where the nature of the operation does not lend itself to direct allocation e.g. in Wastewater Network Plus where we operate on a combined network (foul mixed with highway and surface); or
 - Group Services costs, which are all general & support (“G&S”). Where possible, Group Services operating expenses are directly attributed to the individual functional areas (and hence Price Controls). All other operating expenses are allocated by expenditure type using suitable cost drivers following RAG 2.09 Section 2 guidance. The allocation process and cost drivers are detailed in Section 6.



C Cost categories

2.7 Each CC is flagged in SAP as direct, indirect, overhead or non-appointed as defined below:

- Direct costs are defined as costs which can be clearly traced to a cost object. A cost object can be a product, contract, project or site. For example, the employment costs of a Site Manager associated with his/her site, chemicals, site maintenance and power;
- Indirect Costs are defined as costs which cannot be traced directly to one cost object or activity. For example, the employment costs of a Regional Manager who has several sites under his/her remit that relate to the Functional Areas;
- Overhead costs are defined as costs not directly related to the operational element of the Functional Areas. For example head office costs, senior managerial costs, and administration; and
- Non-appointed costs are those incurred in the delivery of our non-appointed services such as billing commissions, rental income from non-appointed assets, property searches and others as defined in RAG 4.11.

D Expense line items

2.8 In SAC, general ledger account codes are further grouped into the operating expense line items in the Proforma tables 2B, 2C, 4D, 4E, 4J and 4K.

E Outsourced contracts

2.9 We are required to disclose any outsourcing arrangements, including agreements with other water companies and local authorities. Table 2 below lists the outsourced contracts, which the Company had in place for the year ended 31 March 2023.

Table 2 - Outsourced Contracts

Outsourced contract	Nature of contract	Managing Functional Areas
Digital	Offshore and office-based support – IBM and Accenture	Group Services
Legal services	Legal services - Eversheds Sutherland	Group Services
Capital delivery programme	Main contractors delivering Capital Programme – Barhale, Bridges Electrical, Clancy Docwra, Costain, Galliford Try, Glan Agua, J B Construction, Kier, Morrison Water Services, Mott MacDonald Bentley, MWH Treatment, Interserve (Tilbury Douglas) and J Murphy & sons	Capital Delivery
Asset management	Asset management project definition and capital delivery project support – Atkins, Binnies (Black & Veatch), Ove Arup & Partners, Mott MacDonald and Stantec	Capital Delivery
Capital delivery PMO	Capital delivery PMO – Costain Limited, Mace Limited, Stantec UK Limited and Turner & Townsend Project Management Limited	Capital Delivery
Quantity surveying function	Capital delivery quantity surveying function – Mott MacDonald and Turner & Townsend	Capital Delivery
Facilities	Facilities and maintenance – EMCOR UK Property services – Savills	Operations
Property Searches	Property searches - HCL Great Britain Limited	Retail
Payroll and recruitment	Payroll, recruitment and contractor payment services - Pertemps	Group Services
Metering	Meter installation/management by MGJV (Morrison's Utility services and Galliford Try joint venture), Arqiva Meter reading - Morrison Data Services and Temetra	Retail
eight2O	Support for major projects - Costain, Black and Veatch, Atkins, Skanska, Stantec UK Limited, MWH Treatment Ltd, Balfour Beatty	Capital Delivery
Wastewater Networks	Reactive and planned network maintenance and sewerage services - Lanes	Operations
Cross boundary relationships	Treatment and supply with other water companies for customers in a catchment area who's waste/water is managed by the other water company.	Operations
Water Networks (formerly IA to Oct 22')	Infrastructure maintenance – Kier Clancy Docwra and Agility (J. Murphy & sons and Morrison Utility Services) to October 2022. Following that Agility + multiple other vendors.	Operations & Retail
Local authorities and Housing Associations	Billing and cash collection	Retail
Other water companies	Billing and cash collection	Retail
Billing	Annual billing performed by WIPRO and Capitaraud prevention services provided by Identeq	Retail
Customer Assistance Funding (“CAF”)	Administration of CAF performed by Auriga	Retail
Debt collection	Collection of debt - Moorcroft, Advantis, Arvato, 1st Locate, TDX, Moriarty Law. Debt transformation - TDX, Moriarty Law, Sagacity, Huntswood	Retail
Fire Hydrants Licence Fee Collection	Aquam	Retail
Credit Sharing	Equifax,	Retail
Mailing and Postage	RNIB; Quadiant Finance; Communisis; RICO; Paragon Customer Communication, Todd Research SPS & Royal Mail	Retail
Customer contacts	Non-network contacts - WIPRO, Capita Customer Management Ltd EXL Tech M and Huntswood	Retail
Customer Insight	University of Bath; Yonder; Rapid Communication; Community Research; CM Monitor; Verve Partners; AURA Insight; SIA Partners; Institute of Customer Services	Retail
Developer Services Design & Project Management Consultancy	Arcadis, Stantec, AECOM, Motts McDonald, Geotechnical Consulting Group Limited	Capital Delivery & Retail
Other Developer Services	Building Water Site Surveys and Flow & Pressure Testing – RPS Buildover CCTV surveys - A1, MTS Kemac & McAllisters	Retail
Wholesale Services	Engineering, technology and communication contracts: Metering: MGJV, Arqiva, Tecurra, Metro Rod, Wipro, Greenredeem, Groundwork, Solo WMS: PJ Keary, Engage, Data Real, Z-tech, MOSL	Retail

Source: Thames Water

Section 3

Guidance

A Regulatory Accounting Guidelines (“RAGs”)

- 3.0 Ofwat issued the latest RAGs in February 2023, of which RAG 4.11 ‘Guideline for the table definitions in the annual performance report’ and RAG 2.09 ‘Guideline for the classification of costs across the price controls’ are the primary guidance used in producing the regulatory tables. There have been no changes to the RAGs since this date, however clarification has been provided through the query process.
- 3.1 The following cost allocation principles have been applied when allocating costs to the relevant price controls, Price Control units and upstream services (RAG 2.09).

Transparency:

- 3.2 The cost attribution and allocation methods applied to allocate costs within the APR need to be transparent. This requires that the costs and revenues apportioned to each service and business unit should be clearly identifiable. The cost and revenue drivers used within the accounting separation system should be clearly explained to enable a review of their appropriateness.
- 3.3 Costs apportioned to each business unit are identifiable by CC and can be traced back to our SAP ledger. This methodology statement, including our cost allocation tables, provide further transparency.

Causality:

- 3.4 Cost causality requires that costs (and revenues) are attributed or allocated to those activities and services that cause the cost (or revenue) to be incurred. This requires that the attribution of costs and revenues to activities and services should be performed at as granular a level as possible. Allocating costs in relation to the way resources are consumed provides a means of building up service and product costs.
- 3.5 Wherever possible, costs are directly attributed to a price control. Some costs are less easily attributed (for example the costs of regulation). Where possible we have taken an activity-based costing approach. The method applied to allocating indirect costs is described in this methodology statement, Section 6.
- 3.6 All operating and capital costs must ultimately be attributed or allocated.

Non-discrimination:

- 3.7 The attribution of costs and revenues should ensure that no undue preference or discrimination is shown to any business unit within the regulated company and it should be possible to demonstrate that internal transfer charges are consistent with the prices charged to external third parties.
- 3.8 Therefore, the attribution or allocation of costs and revenues should not favour any price control unit or appointed/non-appointed business and it should be possible to demonstrate

that internal transfer charges are consistent with the prices charged to external third parties.

No cross subsidy between price controls:

- 3.9 Companies cannot transfer costs between the price control units in setting prices and preparing the APR. In accordance with RAG 5, transfer prices for transactions between price control units should be based on market price unless no market exists, in which case transfer prices should be based on cost.
- 3.10 In line with the separate binding price controls introduced from April 2015, costs are not transferred between price control units and are compliant with RAG 5.07.

Objectivity:

- 3.11 The cost and revenue attribution criteria need to be objective and should not intend to benefit any price control unit or appointed/non-appointed business. Cost allocation must be fair, reasonable and consistent.
- 3.12 Costs are allocated objectively and do not favour any reporting area. Where possible direct allocations are used, otherwise externally and internally reported measures are used that are in line with Ofwat's principles to allocate costs.

Consistency:

- 3.13 Costs should be allocated consistently by each company from year to year to ensure meaningful comparison of information across the sector and over time, that regulatory incentives from comparative analysis apply fairly across companies and to enable monitoring of companies' performance against price control assumptions.
- 3.14 Cost allocation methods are kept as consistent as possible. Where changes are required, these are documented within our Accounting Separation Methodology Statement.

Principal use:

- 3.15 Capital expenditure and associated depreciation should be directly attributed to one of the price control units. Where this is not possible as the asset is used by more than one service, it should be reported in the service of principal use with recharges made to the other services that use the asset reflecting the proportion of the asset used by the other services.
- 3.16 We have followed the guidance for principal use recharges per RAG 2.09. Where possible we have directly attributed capital expenditure and the corresponding depreciation to the price control units, and applied the principle use guidance for shared assets, see Section 7 (details the allocation assumptions outlining how the above principles have been applied) apart from where relevant exceptions have been communicated by Ofwat.



Section 4

Changes to methodology for 2022/23

4.0 We have not materially changed the methodology applied compared to the previous period.

Section 5

Operating expenses - allocation assumptions

- 5.0 The following sections describe the allocation assumptions used in the production of the operating expense line items of table 2A, 2B, 2C, 4D, 4E, 4J and 4K reported in the APR.
- 5.1 Recharges between Functional Areas are allocated using the cost drivers described below.
- 5.2 For the purposes of cost allocation, FTEs (or “full-time equivalents”) should include all full-time staff, and contractors/temporary staff directly employed. Where there is an existing contractual arrangement in place with an associate or third party for example a third party billing arrangement, FTEs will include all full-time staff, and contractors / temporary staff directly employed by the associate or third party involved in providing that service to the appointee.

B Wholesale

- 5.3 The following are the cost drivers used for all expenditure lines listed in tables 4D, 4E, 4J & 4K. For general and support expenditure, the appropriate allocation basis is provided in Section 6.

Cost Driver A: costs can be attributed directly to the relevant Upstream Service process by reference to cost centre function and GL purpose.

Cost Driver B: costs can be directly attributed to a price control (water, wastewater) but a specific cost driver is required to allocate the cost to the appropriate Price Control unit and Upstream Service process within the price control.

Cost Driver C: allocations are worked out using appropriate estimates and judgements based on available data and management understanding of the business.

Wholesale water

- 5.4 Most costs can be directly attributed at source to a Price Control unit and Upstream Service process within water services or to water treatment sites and allocated to the relevant process. Table 3 below details the allocation basis and assumption for each expenditure line.

Table 3 - Water service allocation basis

Expenditure line	Cost driver	Cost driver for allocation to price controls, Price Control units and US level
Power	A/B	Direct allocation by use of specific expenditure codes and cost centres to site, else allocated based on assessment of activities and sub-metering where available
Income treated as negative expenditure	B	Direct allocation by use of specific expenditure codes and cost centres to site else allocated based on assessment of activities and sub-metering where available
Service charges/discharge consents	A	Actual charge from the Environment Agency directly coded to process through cost centres and expenditure codes
Bulk supply/Bulk discharge	A	Directly coded to process through cost centres and expenditure codes
Other operating expenditure		
Employment costs	A/C	Directly coded to process where possible, else allocated based on assessment of time spent
Hired and contracted	A/C	Directly coded to process where possible, else allocation based on assessment of site activity by site management
Materials and consumables	A/C	Directly coded to process where possible, else allocation based on assessment of site activity by site management
Other direct costs	A/C	Direct cost to site else management judgement
General and support	See Section 6	
Cumulo rates	B	Gross Modern Equivalent Asset Value ("GMEAV") based on US values
Third party services	B/C	Allocated to US unit based on activity analysis, else management judgement

Source: Thames Water

Wholesale wastewater

- 5.5 Most costs can be directly attributed at source to a Price Control unit and Upstream Service process within waste services or to sewage treatment sites and allocated to the relevant process. Table 4 below details the allocation basis and assumption for each expenditure line.

Table 4 - Wastewater service allocation basis

Expenditure line	Cost driver	Cost driver for allocation to price controls, Price Control units and US level
Power	A/B	Direct cost to process by sub metering where it exists, else allocated based on assessment of site activity by site management and Energy Management Department. Oil and gas allocated based on assessment by Energy Management Department. All savings from self-generation of power in the sludge process are allocated to Sludge Treatment.
Income treated as negative expenditure *	A	All ROC income reported in Sludge treatment, and all sludge cake sales reported in Sludge Disposals.
Service charges/discharge consents	A	Actual charge from the Environment Agency for discharge consents directly coded to process
Bulk supply/Bulk discharge	A	N/A
Other operating expenditure		
Employment costs	A/C	Directly coded to process where possible, else allocated based on assessment of time spent
Hired and contracted	A/C	Directly coded to process where possible, else allocation based on assessment of site activity by site management. Sludge disposal costs fully allocated with exception of ash disposal which is directly coded
Materials and consumables	A/C	Directly coded to process, else coded to site and allocated between sewage and sludge treatment based on site activity by site management
Other direct costs	A/C	Direct cost to site, else allocated based on management judgement depending on the type of cost reported in this category
General and support	See Section 6	
Local authority rates	B	Gross Modern Equivalent Asset Value ("GMEAV") based on Upstream Service values for non-infrastructure assets. Sewer networks and pumping stations are not rateable
Third party services	B/C	Allocated to Upstream Service unit based on activity analysis, else management judgement.

Source: Thames Water

* Income treated as negative expenditure; includes income from sludge cake sales and Renewable Obligation Certificates ("ROC"), levy exemption certificates and the national grid reserve, in line with guidance provided in RAG 4.10.

C Retail

- 5.6 The Retail Functional Area reports the customer facing and back-office costs of water and waste services. These are reported in APR table 2C.

Allocation of CCs to retail activities

- 5.7 The allocation of operating expenditure between Retail household ("HH") and Retail Non-household ("NHH") is mapped from analysis of each cost centre and held in SAP analytics
- 5.8 The following sections provide the basis for the production of APR table 2C.

Table 5 - Retail activities by expense

Retail activities by cost centre	Basis of allocation	Customer services								Debt management	Doubtful debts	Meter reading	Services to developers	Disconnections and reconnections	Demand-side water efficiency initiatives	Customer side leaks	Other direct costs
		Billing	Payment, remittance and cash handling	Charitable Trust donations	Vulnerable customer schemes	Non-network customer enquiries & complaints	Network customer enquiries and complaints	Investigatory/first time visits to customers	Other customer services								
First Contact Resolution Support	Based on call volumes and , FTEs by teams, and TW propositions	x	x			x											
RSC Resource Planning	Based on analysis of calls allocated by Rev/Ops and then Thames proposition	x	x			x											
Business Intelligence Team	Based on analysis of calls allocated by Rev/Ops and then Thames proposition	x	x			x											
Customer Service Transformation	Allocation based on cost centres benefitting from improvement projects	x	x		x	x	x		x		x					x	
Document Handling Centre	Analysis of queries/complaints recorded					x	x										
High level complaints team	Volumetric data on network / non network complains					x											
Head of Customer Contact (Management cost centre for Operations RSC)	Weighted average calculated for cost of managers in this cost centre based on cost centres served	x	x		x	x	x		x		x					x	x
Head of Collections	Weighted average calculated for cost of managers in this cost centre based on cost centres served				x				x								
Risk & governance	Allocated based on initiatives covered in the period				x				x								
Banking	Specific to payment handling activity		x														
Mail house & Post room	Based on volumes of type of bills/mail	x	x						x								
Customer Communication & Design	Specific to other direct costs (service improvement, intelligence, monitoring, marketing)																x
Customer Research & Insight	Specific to other direct costs (service improvement, intelligence, monitoring, marketing)																x
Collection Process & Strategy	Specific to Debt Management								x								
Collection Service Delivery	Specific to Debt Management								x								
Billing - Outsource & Performance Management	Management Review of FTE resource	x															
Billing Process Management Staff Costs	Management Review of FTE resource	x	x				x		x		x						
Billing and Collections - LA/HA Commissions (all HH)	Management judgement based on TW relative costs for the activities covered, and historical discussions with LA/HA's	x	x				x		x		x						
Billing Service Delivery	Based on Managers assessment of FTE's	x	x													x	
Meter reading	Specific to meter reading										x						
WOC Bad Debt	Specific to Doubtful Debts									x							
WOC Commissions	Allocation across activities covered by WOCs pro-rata to their Retail Costs submissions	x	x		x	x	x		x		x						
Bad Debt Provision & Excess Credits	Specific to Doubtful Debts									x							
Customer Resolution - RSC	Based on manager's assessment of FTE					x											
Digital Communications	Specific to other direct costs (General and support cost)																x
Affordability & Vulnerability	Specific to Vulnerable Grps				x												
Customer Experience & Design	Weighted average based on cost centre allocations the managers in this cost centre are responsible for																x
Senior Management Team	Based on overall % allocation of all activities in Retail	x	x		x	x	x		x		x					x	x
Recharged fromWholesale	Calls found not to be a network issue	x	x		x	x	x		x		x	x					x
Recharged fromDigital, Group	Specific to retail, based on FTEs	x	x		x	x	x		x	x	x	x					x
Case management	Specific to other direct costs (General and support cost) by Capita	x	x				x										x
Billing team	Allocated based on FTE across Retail	x	x		x	x	x		x		x	x					x
Brand and marketing	Manager's assessment of teams supported	x	x		x	x	x										
Transactional	Management of Wipro & WNS outsourcing allocated per analysis of activities	x			x	x											x
Smart metering	Based on Managers assessment of work activity and areas of business supported						x										
Quality team	Allocation based on cost centres benefitting from quality team	x	x				x										
Collectives	Based on FTEs by teams, and activity	x	x		x	x	x		x		x						

Source: Thames Water

- 5.9 The majority of costs reported within table 2C are directly attributable and these are costs reported within the Retail Functional Area.
- 5.10 Retail Opex includes recharges from Group Services functions (covered in section 6), recharges from non-appointed business, Wholesale business which include services to Developers administration, investigatory visits, where it is found that it is not a network issue and allocation from estates.

Retail Household and Retail Non-Household

- 5.11 The Company's allocation of costs into Household and Non-Households is compliant with the definitions below as stated in RAG 2.09.
- 5.12 Households: These are properties used as single domestic dwellings (normally occupied), receiving water for domestic purposes which are not factories, offices or commercial premises. These include cases where a single aggregate bill is issued to cover separate dwellings having individual standing charges (In some instances, the standing charge may be zero). The number of dwellings attracting an individual standing charge and not the number of bills should be counted. Mixed/commercial properties and multiple household properties – for example, blocks of flats having only one standing charge – should be excluded.
- 5.13 Non-households: These are properties receiving water for domestic purposes, but which are not occupied as domestic premises, or where domestic dwellings are combined with other properties, or where properties are in multiple occupation but only have one standing charge. In this case, it is the number of bills that should be counted.

Allocation of costs to Household/Non-Household (NHH)

- 5.14 Thames Water exited the NHH market in April 2017 hence there is no NHH activity.

Allocation of revenues between price controls

- 5.15 The actual wholesale revenue received for each service (water and wastewater) is apportioned across the relevant price controls using the splits derived from the allowed revenues that fed into our tariff modelling when prices for 2022-23 were being set.
- 5.16 As such, the split of allowed revenues for Water Resources and Water Network Plus is used to apportion our wholesale water revenue across the two water price controls. Likewise, the split of allowed revenues for Wastewater Network Plus, Bioresources and Thames Tideway Tunnel is used to apportion our wholesale wastewater revenue across the three wastewater price controls.

D Billing and collection

Bills to occupier policy

- 5.17 The Company only raises bills in the name of the "occupier" when it has evidence that the property is occupied but cannot confirm the name of the occupier. When the occupant is identified the bill is cancelled and rebilled in the customer's name. If the Company has not identified an occupant within 6 months the bill is cancelled, and the property is classified as empty. The value of bills issued in the name of the occupier included in turnover is obtained from the 'Occupier Billing report' run by our Billing Analysts. No specific doubtful debt provision is made for bills issued in the name of the occupier at the year-end. A bad debt provision is applied to all outstanding debt, at the year-end a provision of 14.4% was applied to all debt less than one year old, which would include any debt in the name of the occupier.

Doubtful debt policy where the customer has vacated a property

- 5.18 Where a customer has vacated a property leaving unpaid debt, this is handled within our debt management process, credit notes are not issued to cancel any such uncollectable debt, when uncollected it is written-off as bad debt.

Bad debt provision policy

- 5.19 The bad debt provision is charged to operating costs to reflect the company's assessment of the risk of non-recoverability of debtors. It is calculated by applying expected erosion rates to debts outstanding at the end of the accounting period. These collection rates take into account the age of the debt and type of debt. Higher provisioning percentages are applied to older categories of debt. Bad debt provisioning rates are updated annually to reflect the latest collection performance data from the company's billing system. All debt greater than five years old is fully provided for.
- 5.20 The bad debt provision also takes into account the recoverability of debts which will ultimately be cancelled and may or may not be rebilled, and of debts which have not yet been billed, but are part of the metered sales accrual.
- 5.21 Future expected performance (taking into account historic trends) is also used to validate our bad debt provisions to ensure that use of historic performance will not result in a material misstatement.
- 5.22 A provision is also made against debts held by Water Only Companies (WOCs) who bill their customers for sewerage services on behalf of the Group. Since detailed information about the debt held on our behalf by the WOCs is limited, we provision via two methods. Where the WOC has been able to supply their provision methodology, we provision with an average rate based on two data points: the provision WOCs calculation, and a rate calculated using the directly billed provision rate. Where this is not available the WOCs provided rate is replaced with a rate calculated using the bad debt provision applied by the WOCs in their most recent statutory accounts, as a percentage of their billed debts and a rate calculated using the directly billed provision rate. We consider current performance and any information available to us to create the provision, we then make a management judgement in respect of future credit losses, in accordance with the requirements of IFRS 9.

Contact centre and outsourced costs

- 5.23 Contact centre agents' costs and outsourced costs are allocated to activities on the basis of the FTE requirement planning and the work packs and work streams issued to outsource partners.
- 5.24 WOC commissions costs from industry data share of the APRs are allocated across the activities they undertake, i.e. billing, payment handling, debt management and customer (non-network) queries based on the relevant weighting of those activities within the Retail operating expenses.
- 5.25 Local Authority / Housing Authority (LAHAs) commissions are allocated across the activities they undertake, i.e. billing, payment handling, debt management and customer (non-network) queries based on the relevant weighting of those activities from WOC commissions, factored for the relative costs for the LAHAs based on management analysis and judgement.



Further assumptions

- 5.26 Most assumptions were consistent to prior period; and only a few changes were made based on management judgment.
- 5.27 Local authority rates are allocated to Retail price control based on office occupancy of Retail in Walnut Court in Swindon.
- 5.28 Third party costs – there are no costs incurred within Retail that are classed as third-party costs, therefore no costs have been reported within this line.

Section 6

Group Services expenditure

- 6.0 These costs reflect the support services functions within the company, which are detailed below in Table 6 with an explanation of the cost driver used. All of these costs are classified as General and Support overheads (“G&S”). The costs allocated to the price controls are net of any recharges of costs that the Group Services functions provide to associate companies of the group and recharges to the non-appointed business of the Company. Most Group Services costs are shown within the ‘Other operating expenditure’ line in APR tables 2B/4D&E.
- 6.1 Management considers that the allocation assumptions and cost drivers used are appropriate and are compliant with the cost allocation principles contained in RAG 2.09.

Table 5 - Group Services (spend allocated across appointed price controls)

Group Services function	Activity and type of expenditure incurred	Cost driver for allocation to price controls, Price Control units and US level	Retail Household	Retail Non-household	Water Resources	Water Network+	Wastewater Network+	Bioreources
Executive remuneration	Total remuneration including bonuses, pensions and other benefits of Executive Directors	Direct for executives of price controls; for other executives including CEO and CFO allocated based on full time equivalent (“FTE”) number of employees	14%	0%	3%	42%	32%	8%
Non-executive remuneration	Total remuneration of Non-Executive Directors	Price control allocation is split/charged to Upstream Service by FTE	14%	0%	3%	42%	32%	8%
General Management	Consultancy costs managed within the Chairman, CEO and CFO’s offices	Allocated directly to Price control where possible and to Upstream Service by FTE	14%	0%	3%	42%	32%	8%
Finance	Internal Audit, Tax, Treasury, Corporate Finance, Financial Control, Operations, Group Services, and Retail & Digital finance teams	Allocated directly to Price Controls where possible and then to Upstream Service by FTE; For other areas allocated to Upstream Service by FTE	23%	0%	3%	38%	27%	7%

Group Services function	Activity and type of expenditure incurred	Cost driver for allocation to price controls, Price Control units and US level	Retail Household	Retail Non-household	Water Resources	Water Network+	Wastewater Network+	Boresources
Legal & secretariat	Management of outsourced Legal service provider, management of Board and related committees and GDPR compliance	Legal fees directly allocated to price control and Upstream Service by case where possible and by FTE where not possible. Secretariat & Data Protection allocated to Upstream Service by FTE	11%	0%	4%	46%	31%	8%
Human Resources	Employment, Training, Payroll and other HR business support costs	Allocated directly to Price control where possible and to Upstream Service by FTE	13%	0%	4%	42%	32%	8%
Digital	Employment and telephony costs All other costs including management of outsourced IT support costs	Allocated directly to Price control where possible and to Upstream Service by FTE	14%	0%	3%	42%	32%	8%
Corporate Affairs	Corporate Affairs (excluding Fisheries, Fountains, Conservation, and Charitable Donations)	Allocated directly to Price control where possible and to Upstream Service by FTE	15%	0%	3%	42%	31%	8%
Facilities and Maintenance	This function includes office supplies, security, facilities and building maintenance costs.	Allocated to price control based on building and desk usage then allocated to Price Control unit and Upstream Service based on FTE	3%	0%	2%	29%	50%	16%
Health and safety	Occupational Health, H&S policy setters, systems costs, and other business support	Allocated to Upstream Service by FTE	13%	0%	4%	43%	32%	8%
Fleet	Fleet management costs and fuel costs	Allocated to price control based on the allocation of the cost centre in which the vehicle is used.	0%	0%	5%	48%	37%	9%
Commercial	Purchase to pay, Sourcing, Contract management and other supply chain and procurement support costs	Allocated to price controls based on estimated number of POs raised, then to Upstream Service based on FTE	2%	0%	4%	50%	35%	9%
Insurance	Policies include Public Liability, Property, Motor & Employers' Liability	Directly allocated to price control based on usage of each Policy, and then to Upstream Service based on FTE	1%	0%	6%	75%	14%	4%
Property - Local Authority Rates (Offices)	Office rates	Allocated to price controls based on sites, then to Price Control unit and US based on FTE for retail and Upstream Service based on MEAV for water and waste.	16%	0%	2%	49%	32%	1%
Property - Site Rates (non-head office)	Water & waste rates	Allocated to price controls based on sites, then to Price Control unit and US based on FTE for retail and Upstream Service based on MEAV for water and waste.	0%	0%	3%	59%	38%	0%
Regulation	Engagement with OFWAT, management of CCG and business support on regulation matters	Allocated to price controls 1/9 retail, 4/9 water & 4/9 waste in accordance with RAG guidance, then to Upstream Service based on FTE	10%	0%	3%	41%	36%	9%
Property – Rent and Management Costs	Savills fee and property team staff costs.	Allocated to price controls based on desk occupancy, then to Price Control unit and US based on FTE. Any non-specific costs are allocated 50/50 to water and waste, then to	21%	0%	3%	38%	29%	7%

Group Services function	Activity and type of expenditure incurred	Cost driver for allocation to price controls, Price Control units and US level	Retail Household	Retail Non-household	Water Resources	Water Network+	Wastewater Network+	Bioreources
		Upstream Service based on FTE.						
Asset Management – Other	General Asset Management costs	Allocated to Price Control then to specific US where possible using management judgement, otherwise to US based on FTE	14%	0%	4%	42%	32%	8%
Asset Management - Water/Wastewater Quality	Managing the delivery of clean, safe drinking water, working closely with Drinking Water Inspectorate; Testing of Wastewater	Sampling costs are allocated based on the no. of samples taken mapped to each US; Other Water Quality costs allocated to specific US (WTW & Treated Water) using management judgement; Other Wastewater Quality cost allocated to specific US (Sewage Treatment & Disposal) using management judgement; Management team has been allocated 50/50 between Water/Waste Price Controls and then to US by sampling effort.	0%	0%	4%	45%	38%	13%
Asset Management – Labs	Labs staff, courier for samples, chemicals, and other materials	Allocated to Waste & Water based on number of samples in each service area, then to US based on FTE	0%	0%	7%	72%	17%	4%
Asset Management – Leakage	Maintenance and improvement of the distribution network for treated water	Allocated to specific US (Treated water) as it is assumed all pipes in the network contain treated water only	0%	0%	0%	100%	0%	0%
Asset Management - Carbon Management	Staff costs for Energy team	Allocated using management judgement	0%	0%	6%	32%	46%	16%
Asset Management - Strategy & Planning	Modelling studies and system costs, Water Resources Management Plan	Specific cost centres are allocated to US using Hydraulic model results from representative sample of catchments; remaining cost centres are allocated to Price Control and then US using management judgement	0%	0%	0%	0%	100%	0%
Asset Management – Projects	Opex Study costs for Projects within Water and Waste	Allocated using purpose codes to split projects costs into US	0%	0%	60%	40%	0%	0%
Asset Management – DS	Opex studies costs for major projects	Allocations have been made by reference to the proportional splits of the DS capital programme, as these opex costs are incurred in support of the wider capex programme	0%	0%	0%	39%	61%	0%

Source: Thames Water

Note: percentages do not add up to 100% in all instances due to rounding of percentages

Section 7

Capex

A Allocation to Price Control and segment

- 7.0 The following section describes the methodology used in the production of the Fixed Assets (capital expenditure) in APR tables 2D and 2O, including attributing spend across the price controls in table 2D and table 2O. This follows the guidance in RAG 2.09 Section 2.
- 7.1 Table 2D excludes intangible assets (which is separately disclosed in table 2O), non-appointed assets, and borrowing costs. It also excludes assets held for sale. 2D includes assets held at fair value.
- 7.2 In tables 2D and 2O gross cost, depreciation/amortisation and net book value are shown in the price control of principal use only. Likewise, in accordance with RAG 4.11 line item definitions, Retail/TTT is shown recorded in the price control of principal use.
- 7.3 Historic cost fixed asset data is maintained in SAP. Every capital project is assigned a purpose code. Every asset is assigned to an asset class and is also assigned an Accounting Separation Key. The purpose code, asset class and Accounting Separation Key structures have been rebuilt in AMP7 to reflect the regulatory 'Upstream Services' structure, so the data can be assigned to Upstream Services (or non-appointed) based on these codes in SAP.
- 7.4 The SAP Accounting Separation Key on each asset in the SAP Fixed Asset Register maps the assets directly to the Tables 2D and 2O Category using the mapping below.

Table 7- SAP Accounting Separation Key Mapping Table

SAP Accounting Separation Key Mapping Table (Asset Master Data) to Tables 2D and 2O:		
Code	Code Description	2D/2O Category
RET1	Retail	Retail Household
SEW1	Sewage Collection	Wastewater Network+
SEW2	Sewage Treatment	Wastewater Network+
SEW3	Sewage Site Services	Waste
SLU1	Sludge Treatment	Bioresources
SLU2	Sludge Disposal	Bioresources
SLU3	Sludge Transport	Bioresources
WAT1	Water Resource	Water Resource
WAT2	Raw Water Distribution	Water Network+
WAT3	Water Treatment	Water Network+
WAT4	Treated Water Distribution	Water Network+
WAT5	Water Site Services	Water
TTT	Thames Tideway Tunnel	TTT
CEN1	Central Support	Central
NON1	Non-Appointed	<i>Excluded from 2D/2O</i>

Source: Thames Water

- 7.5 This Accounting Separation Key is always assigned when the asset is created and corresponds directly to the approved funding paper documents and project asset classes/purpose codes authorised. This ensures the vast majority of assets are directly attributed to the price control unit that has principal use, by the relevant business specialist.
- 7.6 As per RAG 2.09, where possible, capital expenditures and associated depreciation / amortisation should be directly attributed to one of the price control units. Where this is not possible as the asset is used by more than one service, it should be reported in the service of principal use with recharges made to the other services that use the asset reflecting the proportion of the asset used by the other services.
- 7.7 Noted increase in movement on PU recharge across price controls was due to higher amount of depreciation charged from assets shared within the Business. These costs mainly relate to investments on digital programmes and were allocated using full time equivalent
- 7.8 The large bulk of tangible assets are operational assets that are assigned directly to the appropriate 2D/2O category in the table line items as follows:

Table 8 - 2D/2O Categories

Table 2D/2O Line items:	Table 2D/2O Categories:						
	Wholesale					Retail	
	Wholesale Water		Wholesale Waste		TTT	Retail Household	Retail Non-Household
Table 2D Categories:	Water Resource	Water Network+	Wastewater Network+	Bioresources			
Year-end Closing Balances (Gross Cost & Accumulated Depreciation)	Method A	Method A	Method A	Method A	Method A	Method A	n/a
Disposals	Method A	Method A	Method A	Method A	Method A	Method A	n/a
Additions, and Adoptions at Nil Cost (Fair Value)	Method B	Method B	Method B	Method B	Method B	Method B	n/a
Depreciation/ Amortisation Charge in the Year	Method A	Method A	Method A	Method A	Method A	Method A	n/a

Source: Thames Water

Method Key:

A: Mapped asset by asset from the SAP Fixed Asset Register using Accounting Separation Key codes.

B: As per Tables 4D & 4E methodology (Asset Class & Purpose Code basis)

Note 1: As shown in the mapping Table 7 (coded “SEW3” and “WAT5”), there are a small minority of assets which are Water or Waste site assets (for example vehicles or generators, or site admin buildings) which are specific to the Waste or Water price control but are then allocated further between the Water or Waste 2D/2O Categories proportionally.

Note 2: Also shown in the mapping Table 7, there are a remaining number of mainly “Management & General” assets which are coded as “CEN1” Central Support (e.g. computer hardware or fleet vehicles). Where the principal user still cannot be ascertained, and in the

absence of further information, these are assigned to either the wholesale waste or wholesale water base in proportion to the asset base.

- 7.9 Specifically, where an asset is used by the whole of the business, for example headquarters buildings, the Accounting Separation code assigned is based on the principal user according to the purpose codes/asset classes approved in the funding paper. Where there is no clear principal user, the “CEN1” Central Support code can be used.
- 7.10 Where a new asset is related to an existing asset (for example an upgrade), the new asset may be assigned a different Accounting Separation Key to the original asset. The code will be based on the principal user information from the purpose codes/asset classes on the new asset. The original asset will remain unaffected.
- 7.11 Assets commissioned each year are reviewed individually to provide assurance that the appropriate Accounting Separation Key has been assigned to the asset. The review is carried out by the relevant price control asset specialists (for example Bioresources assets are reviewed by the Bio-Resources Ops Asset Manager). Central assets are reviewed by the Capital and Investment team in order to assign them where possible to the most appropriate price control on a principal user basis. All asset base Accounting Separation data will be reviewed at key points in time, for example where there is a change in methodology, or where a change in table category definitions / requirements occurs. This ensures the appropriate mapping is maintained.
- 7.12 Table 2D balances also include the uplift in fair value as a result of adopting IFRS in April 2015. These are split across the wholesale business (mainly Water Network+ assets).
- 7.13 A handful of assets included in the table have been acquired at nil cost. This includes assets adopted, (for example self-lay sewers typically installed by property developers, or private sewer pumping stations which Thames Water are now responsible for). These are directly attributed to the relevant price controls.
- 7.14 Further, as per RAG 1.09, OFWAT’s requirement is that all companies should account for leases in accordance with IFRS 16 in the regulatory accounting statements. Therefore, Table 2D has been adjusted to reflect opening balances, additions (modifications), disposals and depreciation of leases subjected to IFRS 16. The calculation of lease adjustments were obtained from the group team and each lease was determined whether these are “shared leases” or specifically attributable to a price control (ie Walnut Court to Retail). The balances of shared leases were then allocated using FTE %, which is in line with the distribution of rent expense on the opex side.
- 7.15 The Adjustments line shows the movements in the opening / closing balances not driven by standard additions, disposals, adoptions or depreciation activities. This would include any asset reclasses, revaluations, or accounting (e.g. IFRS) adjustments.
- 7.16 Under RAG 4.11, it is a requirement to split the depreciation charge for the year between principle assets and assets dedicated to third party service activities. This is defined as assets that enable the fulfilment of bulk supplies and other services to other monopoly suppliers and inset appointees. Depreciation on assets used for both principal and third-party activities do not need to be allocated and should be recorded as principle services.
- 7.17 Where assets are used by more than one price control, a recharge is made from the principal user to the other price controls to reflect the usage of the asset. The recharge is calculated as an allocation of the depreciation charge since this represents the charge for using the underlying assets. The cost driver and basis for the allocations follow the same basis as

operating expenses allocations per Table 8 above. These recharges are reported in APR tables 2A and 2C.

B Allocation to Upstream Service (US) level

- 7.18 The following documents the process adopted to comply with Ofwat's guidance for allocation of capital expenditure across Upstream Services (US) units. This covers the assumptions, adjustments and method of analysis applied to populate the capital expenditure sections of APR tables 4D and 4E.
- 7.19 The primary driver for allocation is the purpose code in use on the capital project. The Asset Class identifies whether the asset is infrastructure or non-infrastructure.
- 7.20 Assets are classed as "Base" or "Enhancement" in SAP. Base capex is reported in tables 4D and 4E as such, and under "Maintaining the long-term capability of assets" lines (showing the split of infrastructure and non-infrastructure) in tables 4J and 4K. We have used the asset classes from SAP to assess whether the cost is infra or non-infra, in line with RAGs definition (4.11). Enhancement capex is reported in tables 4D and 4E as such and disclosed in more detail in tables 4L and 4M.
- 7.21 The data that then remains unallocated comprises largely management & general (M&G) assets. Examples include Fleet and IT assets as well as office buildings on non-operational sites. Assets produced from these projects are reviewed manually in order to assign them to the most appropriate US unit. In some cases, such assets are used by multiple US units and so are deemed 'shared use assets'.

C Allocation of shared use assets

- 7.22 A number of assets are used by more than one US unit and indeed in a number of cases are used for the activities of more than one price control unit. In accordance with RAG 2.09, such assets have been wholly allocated in tables 4D and 4E to the price control of primary use, which in almost all cases for the Company is the wholesale wastewater price control (based on the total cost incurred by Operations).
- 7.23 Once allocated to the price control unit of primary use, these assets are allocated across the US units according to a suitable driver. In most cases the driver used is headcount of the directly attributable employees (FTE%) within each of the US units, as the assets are supporting the rest of the business as carried out by the staff within each operational business unit. In some cases, a more bespoke allocation is possible, e.g. our main laboratory building is primarily carrying out sample testing of effluent from the sewage treatment process, hence asset expenditure is allocated wholly to the 'Sewage Treatment & Disposal' US.

D Data adjustments

- 7.24 Data generated from SAP BI is first reconciled to the Flash report (ie Management Report) since the Project Controlling and Regulatory cubes in SAP BI are rarely in perfect alignment due to manual adjustments in the VoWD (Value of Work Done) data and VoWD data is reported at Level 1 while BI is reported at the lowest level.
- 7.25 Once SAP BI and Flash are reconciled, a number of adjustments are made to the raw data as extracted from the SAP system to ensure correct allocations are made to the US units as well

as to the categories of infrastructure and non-infrastructure assets and between base expenditure and enhancement expenditure. These adjustments were made to comply with Ofwat's guidance on allocation. The key adjustments are explained below:

- Land adjustment: land purchases must not be paired with a base purpose code, so the purpose code on any such lines is changed to enhancement. Where the land asset class is used for other purposes such as landscaping or SUDS or SEBA then a base purpose code is permitted;
- Sludge centres adjustment: a manual review of all capital expenditure allocated to sludge-related US units is undertaken to ensure that only assets at our dedicated sludge centres (or assets involved in transporting sludge to our dedicated sludge centres) are allocated to these categories. Similarly, a review of allocations within the sludge-related US units is carried out to ensure correct assignment, for example, between sludge treatment and sludge disposal;
- Sludge transport and disposal: the sludge transport and sludge disposal US units have a very small list of assets that should be allocated to them, so this adjustment is moving Capex to sludge treatment where spend has been miscoded to disposal or transport;
- Infrastructure at treatment works sites: a manual review is undertaken to ensure no infrastructure assets are coded to the Water Treatment or Sewage Treatment & Disposal US units as any underground pipework within treatment work sites should be classed as a civil structure;
- Water assets on waste purpose codes (and vice versa): undoing the proportional allocation that puts Sewerage assets on Water purpose codes and vice versa;
- Manual allocations: For the few assets which do not map directly to US units based on asset class or purpose code and are not shared across water/waste price controls, they are assessed manually on an individual basis to assign them to the correct ASUS (Accounting Separation Upstream Service) unit. Any that can't be allocated directly to one ASUS unit will need a suitable allocation across multiple ASUS units such as the allocation used in the FTE (Full Time Equivalent) headcount splits by upstream service;
- Raw water assets review: the distinction between raw water abstraction, transport and storage requires very specific allocations under RAG 4.11. As all of Thames Water's storage reservoirs have associated abstraction licenses they are to be classed as raw water abstraction along with the pipes and pumps that transport the water to them from the abstraction point. Only pipes and pumps on the raw water network beyond the storage reservoir on the way to the treatment works are coded to raw water transport while no allocation is made to raw water storage as Ofwat confirmed that TW have no Raw Water Storage;
- Shared use assets: under RAG 4.11 any assets that are shared by more than one price control unit (i.e. wholesale water, wholesale wastewater, retail household and retail non-household) must be wholly allocated to the price control of principal use which in almost all cases for Thames Water is wholesale wastewater. Adjustments are therefore made to allocate projects for the majority of IT systems and office buildings such as Kemble Court, Clearwater Court, Rose Kiln Court and Spencer House;
- Developer Services Adjustments: Adjustments such as, removing non-DS capex from DS deliverer and assets adopting at fair value are made to align the data with DS tables 4N/O/P;
- Eight20 ROI (Risk, Opportunity and Innovation) fund & overhead: For management reporting, Eight20 ROI (i.e. ESNR, ESIR, EWNR and EWIR) is mapped only into four ASUS units – 2 waste and 2 water. However, this relates to the entire eight20 schemes that are generating ROI. Hence an adjustment is being made to apportion ROI to the ASUS units of all eight20 ROI generating schemes. The % apportionment is calculated/provided by Head of Capital Delivery; and

- IFRS 16: As per RAG 1.09, OFWAT's requirement is that all companies should account for leases in accordance with IFRS 16 in the regulatory accounting statements. Therefore, Table 4D and 4E have been adjusted to reflect additions of leases subjected to IFRS 16 in the year.

7.26 Following completion of the manual data checks, a bulk adjustment is made to include unallocated capital overheads (OHAP) that cannot be allocated through the steps mentioned above. As in previous years this is allocated proportionately across the relevant US.

E Population of tables 4D and 4E

7.27 Once data has been fully allocated to US units, it can be mapped into the capital expenditure sections of tables 4D and 4E by way of three specific data classifications. These classifications are split between the following criteria to populate tables 4D and 4E:

- Base capital expenditure;
- Enhancement capital expenditure;
- Developer services capital expenditure; and
- Third party

7.28 Developer Services (DS) expenditure is that required by developers to provide the same current level of service to newly connected customers. It also includes expenditure to divert water and sewer mains in connection with property developments, road improvements etc (RAG 4.11).

7.29 The largest adjustment within DS is to remove fair value assets. These are being built by the Developers which Thames will adopt at nil cost upon completion. Under IFRS, we need to value these assets in our Balance Sheet although no real spend to Thames. This requires an adjustment to recognise the assets in our Balance Sheet at fair value and the related income. However, the fair value is posted to the projects/SAP as normal 'Value of Work Done' (VoWD) journal thereby increasing VoWD.

7.30 For APR Tables 4D and 4E, these are being adjusted to remove these from the Gross capex. These will subsequently tie into the reg tables for 4N and 4O (after adjustments excluded/included, which are completed by Developer Services team).

7.31 The additional lines for third party services relate to capital expenditure that enable the fulfilment of bulk supplies and other services to other monopoly suppliers and inset appointees, i.e. on-going supply of water and sewerage services. Further, OFWAT provided guidance on what services should be considered as 3rd party and which ones fall under principal services. This is in reference to Appendix 1 of RAG4.11 which we have assessed and interpreted based on the summary below.

- Projects that are with another monopoly suppliers/inset appointees that provide bulk supplies have been considered as 3rd party; and
- Rechargeable costs such as non-primary, fire hydrants and installation of meters to non-household are considered as 3rd party services however are recognized as opex (not as capex).

7.32 Consultation and confirmation from relevant business specialists have been made to confirm whether RAG's requirement as per above is appropriate and consistent with our reporting.

F Reconciliation

- 7.33 Once all of the data has been reviewed and the necessary adjustments made, a final reconciliation is carried out to ensure no capital expenditure has been omitted or included when it should not have been. Tables 4D and 4E are reconciled to management accounts (HFM) and to statutory financial statements (i.e. PP&E note).
- 7.34 There are a number of capital expenditure categories that are removed during the allocation process that form reconciling items between our initial data set from SAP and tables 4D and 4E. These are listed below:
- Thames Tideway Tunnel in-year Capex – this is excluded from tables 4D and 4E as it does not relate to wholesale spend. However, this is presented as a separate price control in tables 2D and 2B;
 - Non-regulatory capital expenditure
 - Retail capital expenditure – this is excluded from tables 4D and 4E but is reported separately in table 2C.23; and
 - Developer Services fair value adjustments on grossed-up schemes - These assets are being built by the Developers which Thames will adopt at nil cost upon completion.

G Population of tables 4F and 4G (Major Projects)

- 7.35 The following provides the process adopted by the Company to comply with Ofwat's guidance for allocation of capital expenditure across US units. This also covers the assumptions, adjustments and method of analysis applied to populate the capital expenditure sections of APR tables 4F and 4G.
- 7.36 In reference to PR19's project list as Direct procurement for customers (DPC) and also those that are listed as potentially suitable for DPC per Final Determination (FD), the below have been considered by the business as major projects:

Project Name
Water Supply – System Resilience Programme
SRO - Effluent Reuse in London
SRO - Transfer TW-Affinity Water
SRO - Transfer TW-Southern
SRO - Abingdon Reservoir (SESRO)
SRO - Severn Thames Transfer
London Water Network Improvement Project

- 7.37 In line with the guideline that only directly attributable costs should be disclosed as part of tables 4F/G, we ensured that we have captured those costs that are directly attributable to Major Projects identified, which has been capitalised (both primary and secondary costs such as Design and Procurement General "D&PG" – overheads). This is also in line with the accounting treatment applied which is based on the provision of the accounting standards.
- 7.38 In reference to the projects identified above, we then assessed the split of these costs relating to operating or capital expenditures. The accounting treatment has been considered and



currently there is on-going discussions taking place, with the information given we are satisfied that these projects are treated as capex for FY22/23.

- 7.39 With the understanding of these projects obtained from the business and in compliance with RAGs (also in line with IFRS accounting standards), all costs spent in Year 3 of AMP7 were capitalised. This meant that there will be £nil cost that will be presented as operating expenditures for FY22/23 reporting in tables 4F and 4G.
- 7.40 Having considered OFWAT guidance RAG 4.11, we should only be reporting as cumulative capex to those projects that have been completed in the reporting year - it is clear that there are no major projects for AMP7 that were completed in year 3, therefore there are no values shown in the right-hand side of the table "Cumulative spend on completed projects". In future years where there are completed projects, these will be calculated and included in the tables.

Section 8

Year on year capex

Table 9 - Capex Analysis- Wholesale Water (£m) ¹

Capex Analysis - Wholesale Water							
	Water resources		Raw water distribution		Water treatment	Treated water distribution	Total
	Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage			
FY22/23	0.0	35.8	11.5	0.0	110.3	549.1	706.7
FY21/22	0.0	41.7	21.8	0.0	97.9	431.1	592.5
YoY Movement £m	0.0	-5.9	-10.3	0.0	12.4	118.0	114.2
YoY Movement %	0%	-14%	-47%	-100%	13%	27%	19%

Source: Thames Water

8.0 Gross Wholesale Water capital expenditure has increased by 19% to £706.7m. The main reasons are explained below:

8.1 Treated Water Distribution has increased primarily due to:

- Increased spend on capital maintenance programmes to maintain and enhance our asset base +c£67m, including:
 - Ramp up in rehabilitation work on Distribution Mains +c.£14m
 - Conditional allowance London network improvements +c£17m
 - Increased resilience at water pumping stations +c£10m
 - Increased spend on the trunk main network, specifically Faringdon to Blunsden & Millennium mains +c£13m
 - Increased security measures and maintenance at reservoir sites +c£11m
- Ramp up in network capital maintenance and minor works to improve monitoring and deliver leakage benefits +c£49m
- Increase in customer metering – primarily an additional c41k replacement smart meters over prior year performance +c£12m
- Increased spend to grow and reinforce the water network for new and existing customers +c£6m
- Offset by the completion of commercial close out of AMP6 projects (included within 2021/22) and programme adjustments -£16m.

¹ Percentages calculated using absolute numbers

8.2 Water Treatment has increased primarily due to:

- Maintenance at water treatment works primarily at Walton, Hampton, Crayford and Thames desalination plant +c£21m
- Ramp up of Northeast London resilience conditional allowance spend +c£2m
- Offset by the completion of commercial close out of AMP6 projects (included within 2021/22) and programme adjustments -£11m.

8.3 Raw Water Transport has reduced primarily due to:

- The completion of two major tunnel reline projects QEII Outlet & Walton Shaft to QEII, plus an offset by the completion of commercial close out of AMP6 projects (included within 2021/22) and programme adjustments -£10m.

Table 10 - Capex Analysis – Wholesale Wastewater (£m) ²

Capex Analysis - Wholesale Wastewater									
	Network+ Sewage collection			Network+ Sewage treatment		Bioresources			Total
	Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Imported sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	
FY22/23	223.5	5.1	1.1	345.1	0.0	0.6	82.8	17.9	676.2
FY21/22	195.0	3.1	0.9	221.4	0.0	0.7	92.4	4.1	517.6
YoY Movement £m	28.5	2.0	0.2	123.8	0.0	-0.2	-9.6	13.8	158.6
YoY Movement %	15%	64%	25%	56%	0%	-22%	-10%	337%	31%

Source: Thames Water

8.4 Gross Wholesale Wastewater capital expenditure has increased by 31% to £676.2m. The main reasons are explained below:

8.5 Sewage treatment and disposal has increased primarily due to:

- Increased spend on capital maintenance programmes to maintain and enhance our asset base; including, significant ramp up of the WINEP storm tank, flow treatment and phosphorous removal programmes to improve compliance performance and reduce pollution risk +c£93m
- Continued ramp up in spend on major project delivery at Beckton, Mogden, Crossness, Greenwich STW's +£59m
- Offset by the completion of commercial close out of AMP6 projects (included within 2021/22) and programme adjustments -£28m.

² Percentages calculated using absolute numbers



- 8.6 Foul collection investment has increased primarily due to:
- Continued spend on base capital maintenance to both maintain and improve our service to customers and reduce health and safety risk +c£15m
 - Further spend to grow and reinforce the wastewater sewerage network for new and existing customers +c£8m
 - Increased spend on capital maintenance programmes to maintain and enhance our asset base; including, upgrade works at Manor Road and Folkestone SPS, rising main renewal, emergency complex works and network resilience +c£22m
 - Offset by a reduction in spend on the Lee Tunnel project, which is now complete, plus completion of commercial close out of AMP6 projects (included within 2021/22) and programme adjustments -£16m.
- 8.7 Sludge disposal has increased primarily due to:
- Increased spend on capital maintenance programmes at Banbury STW CHP replacement plus programme adjustments+ c14m
- 8.8 Sludge treatment has reduced primarily due to:
- Continued ramp up in spend on major project delivery at Beckton and Mogden +£11m
 - Increased spend on base capital maintenance to both maintain and improve our service to customers and reduce health and safety risk +c£7m
 - Offset by the completion of commercial close out of AMP6 projects (included within 2021/22) and programme adjustments -£28m.

Section 9

Year on year comparison of operating expenditure

Wholesale Water

Table 6 - Wholesale Water Opex year on year movements in operating expenses by Upstream Service level

		Total	Water resources	Raw water transport	Raw water storage	Water treatment	Treated water distribution
Total operating expenditure		£m	£m	£m	£m	£m	£m
2021/22		491.2	67.7	5.0	0.1	100.3	318.1
Power	Increase in power prices alongside additional volume increase through summer 22'.	25.6	4.7	0.7	0.1	8.1	11.9
Income treated as negative expenditure		0.2	(0.1)	0.0	-	0.2	0.0
Bulk supply	Increase in bulk import volumes	0.8	0.8	-	-	-	-
Renewals expensed in year (infra)	Water Networks infra - net total of renewals work including leakage has been impacted by both volumes, job mix and price.	4.4	-	-	-	-	4.4
Other operating expenditure	Largest increase in distribution (coming out of IA), treatment also increased (chemicals and people costs)	8.3	1.7	1.7	1.7	1.7	1.7
Local authority and cumulo rates	Revaluation of Cumulo rates	16.8	(1.4)	4.8	-	(8.3)	21.8
Service Charges Abstraction charges/ discharge consents	Increased abstraction charge invoicing due to drought	6.6	6.6	-	-	-	-
Traffic Management Act + Rental Schemes	Volume of leakage work (leakage recovery plan)	9.0	-	-	-	-	9.0
Total base operating expenditure		89.5	11.8	6.1	0.1	14.7	56.8
Enhancement		0.2	0.4	(0.1)	(0.1)	(0.3)	0.2
Developer services Opex	Change to treatment in accounts.	(2.1)	-	-	-	-	(2.1)
Third party services	Bulk supply costs not included this year. Other 3rd party costs not separated out.	(5.1)	(2.2)	(0.2)	-	(0.8)	(1.8)
Total movement		82.5	9.9	5.9	0.1	13.6	53.1
2022/23		573.7	77.6	10.9	0.1	113.9	371.1

Table includes rounding differences

Source: Thames Water



A Wholesale Wastewater

Table 7 - Wholesale Wastewater year on year movements in operating expenses by Upstream Service level.

Total operating expenditure		Total	Network+ Sewage collection			Network+ Sewage treatment		Sludge		
			Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Imported sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal
2021/22		506.4	166.3	28.8	5.5	233.5	10.7	7.4	35.8	18.5
Power	Power price dominates the majority of the £28.3m increase YoY.	28.3	6.2	1.0	0.2	18.3	4.8	(0.0)	(3.3)	1.1
Income treated as negative expenditure	Additional income received through Bio-Methane sales and production.	(2.6)	0.0	0.0	0.0	(0.0)	-	-	(2.6)	(0.0)
Bulk Supply/Bulk discharge	Minor change in volume/ price	(0.3)	-	-	-	(0.3)	-	-	-	-
Renewals expensed in year (infrastructure)	Changes to contract and scope of work have led to a small reduction in cost.	(3.5)	(2.9)	(0.5)	(0.1)	-	-	-	-	-
Renewals expensed in year (non-infrastructure)		-	-	-	-	-	-	-	-	-
Other operating expenditure	Main drivers: Increase to Chemical prices, increased tankering and employee cost inflation.	14.2	30.1	2.1	1.0	(32.0)	(1.5)	0.1	(4.5)	20.0
Local authority and Cumulo rates	Revaluations based on LA assessments.	12.1	(11.2)	(1.8)	(0.5)	31.5	(0.1)	(0.1)	(5.7)	(0.0)

Accounting Methodology Statement



Service Charges		(0.0)	0.7	0.1	0.0	(1.8)	-	0.0	0.9	0.1
Location specific costs & obligations		(1.8)	(1.6)	(0.3)	(0.0)	-	-	-	0.0	-
Total base operating expenditure		46.8	20.3	0.6	0.6	15.6	3.3	0.0	(15.2)	21.0
Enhancement	Function of opex project work completed in the year	(4.9)	(4.5)	(0.6)	(0.1)	0.3	-	-	-	-
Developer services Opex	Change to treatment in accounts.	(4.4)	(4.4)	0.0	-	-	-	-	-	-
Third party services	Change in scope removed Bulks supply cost (included in FY21/22)	(1.7)	(0.5)	-	-	(0.7)	-	(0.0)	(0.3)	(0.0)
Total movement		35.2	10.9	0.0	0.4	15.2	3.3	0.0	(15.5)	21.0
2022/23		542.2	177.7	28.8	5.9	248.7	14.0	7.4	20.2	39.5

Table includes rounding differences

Source: Thames Water



B Retail – Household

Table 8 - Retail Opex – Household Commentary

£m	Operating Expenditure 2c.8	Customer services	Debt management	Doubtful debts	Meter reading	Services to developers	Other operating expenditure	Local authority and Cumulo rates
21/22	167.05	72.2	18.9	66.0	7.8	0.0	1.8	0.3
Reduced contact centre complaints, consolidating on efficiencies achieved in prior year	(0.9)	(0.9)		-	-	-	-	-
Increased doubtful debt from lower collection rates (driven by increase in cost of living and inflation) and increased cancel rebill recoverability provision for unmeasured customers.	23.8	-		23.8	-	-	-	-
The decline in debt management costs is as result of efficiencies from internal restructure	(0.6)	-	(0.6)	-	-	-	-	-
Outsourcing costs declined slightly as part the replacement of non-smart meters with smart meters. Hence, "the cost of physical meter reading declined	(0.3)	-	-	-	(0.3)	-	-	-
Other	(0.1)	-	-	-	-	-	(0.2)	0.04
22/23	188.6	71.0	18.3	89.7	7.5	0.0	1.7	0.4

Source: Thames Water

Commentary

- 9.0 The 2022/23 performance shows a consolidation of efficiencies in our customer support and debt management activities. This is reflected in the reduction of operating expenditures by £0.9m and £0.6m year on year respectively. These efficiencies are a result of our continuous transformation initiatives happening within the business.
- 9.1 Doubtful debt increased by £23.8m year on year because of a combination of poor macro indices, higher cost of living and an adjustment to our cancel rebill recoverability provision for unmeasured customers.

C Retail – Non-Household

- 9.2 Thames Water exited the Non household Retail market at Market Opening in April 2017.

