

Severn Trent Water Limited

Accounting Separation Methodology Statement

Year ended 31 March 2020

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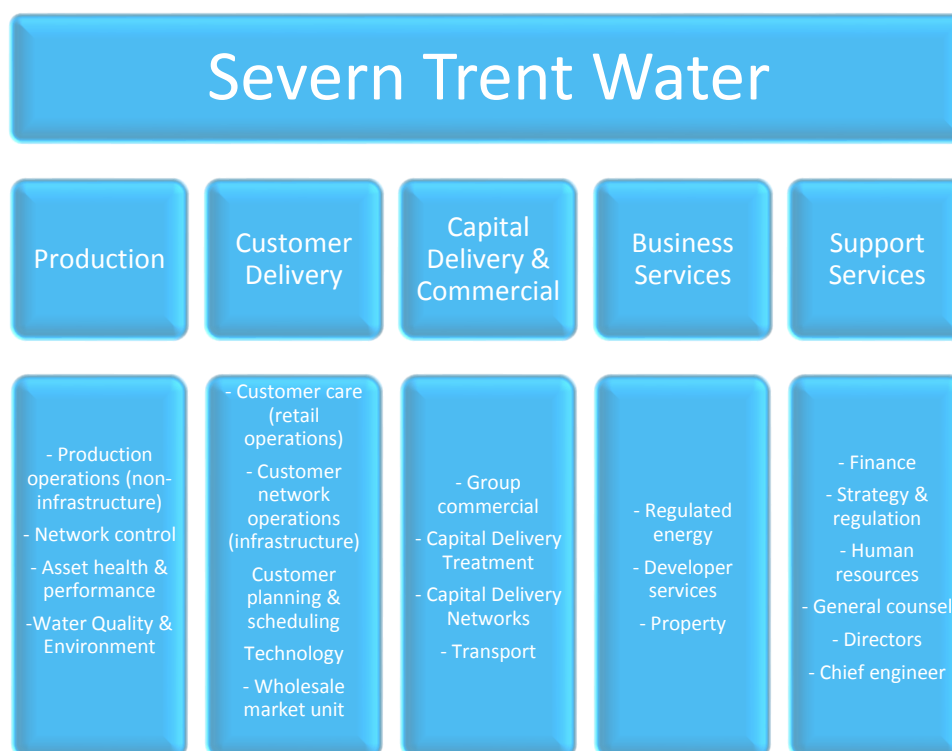
Introduction

The purpose of this statement is to explain the systems and processes used to populate tables in the Annual Performance Report (APR). We explain the methodology used in the allocation of revenue and expenditure between price controls, customer types and upstream services.

The Annual Performance Report tables can be found on our website (www.stwater.co.uk).

1. Business structure, systems and sources of information used to populate tables

The operating business structure at Severn Trent Water (STW) is as follows:



Systems in place

Information used to populate the tables originates from our SAP system which is interfaced with Tagetik (consolidation) and Business Warehouse (BW) systems. Financial reports are retrieved from these systems to produce the APR.

Information providers

Information in the Annual Performance Report (APR) is sourced from the operational teams within the business. In this document, we have provided details of:

- data used to populate the tables;
- the basis used for allocating income and expenditure; and
- the basis of management assumptions made in the allocation methodology.

2. Areas of responsibilities

<i>Area</i>	<i>Owner</i>	<i>Process / activity</i>
<i>All financial tables</i>	<i>Group Finance – Regulatory Accounting & Reporting</i>	<p>Communicate regulatory reporting requirements and guidance to finance and non-finance stakeholders involved in the APR process.</p> <p>Co-ordinate delivery of APR tables and complete reconciliations between the statutory position and related tables.</p> <p>Co-ordinate external assurance for the regulatory tables.</p>
<i>Operational expenditure</i>	<i>Finance business partners – Production, Customer Delivery, Business Services, Capital Delivery & Commercial</i>	<p>Determine cost allocation methodologies for price control and upstream services.</p> <p>Determine cost allocation methodology for third party and non-appointed activities.</p>
	<i>Management Accounting team</i>	Apply above cost allocation methodologies to year end financials and produce Opex tables.
	<i>Finance business partners – Production, Customer Delivery, Business Services, Capital Delivery & Commercial</i>	Undertake variance analysis against prior year and final determination.
<i>Capital expenditure</i>	<i>Strategic Asset Planning teams</i>	Review source data capital expenditure assignments to Capex regulatory categories for accuracy and provide cost allocation methodologies where applicable.
	<i>Financial business partners - Capital Delivery & Commercial</i>	<p>Apply cost allocation methodologies to year end financial and produce Capex tables.</p> <p>Undertake variance analysis against prior year and final determination.</p>
<i>Fixed assets</i>	<i>Capital Accounting team</i>	<p>Prepare fixed asset tables by business unit and perform reconciliation between the statutory and regulatory position.</p> <p>Provide retail depreciation numbers for retail tables.</p>
<i>Revenue</i>	<i>Income and debt team</i>	Analysis of revenue between regulatory categories.
	<i>Finance business partners – Customer Delivery (Wholesale & Retail Revenue)</i>	Undertake variance analysis against prior year and final determination.

3. Cost allocation principles

Our approach to accounting separation applies the general principles set out in RAG 2 and RAG 5. Ofwat has set out the following general principles which we are required to comply with.

<i>Principle</i>	<i>OFWAT requires that...</i>	<i>At Severn Trent Water...</i>
<i>Transparency</i>	The cost attribution and allocation methods applied to allocate costs within the APR need to be transparent. This means that the costs and revenues apportioned to each service or segment should be clearly identifiable. The cost and revenue drivers used within the system should be clearly explained to enable robust assurance against this guidance.	Our accounting separation methodology is transparent. Direct costs to price controls are identifiable and can be traced back to our SAP ledger. Methodologies for allocated costs are captured in PDTs.
<i>Causality</i>	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 or allocation of costs and revenues to activities and services should be performed at as granular a level as possible.	Wherever possible, bases for costs are allocated to activities that cause the cost to be incurred. Some costs are more remote from the activities being allocated across than others (for example costs of regulation). The method applied to allocating such costs is described in the methodology statement.
<i>Non-discrimination</i>	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.	Cost allocation bases are as objective as possible and are not designed to favour any price controls or associated companies.
<i>Objectivity</i>	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.	Cost allocation bases are as objective as possible and are not designed to favour any price controls or associated companies.
<i>Consistency</i>	Costs should be allocated consistently from year to year to enable meaningful comparison of information over time. Changes to the attribution methodology from year to year should be clearly justified and documented.	We have been consistent in our cost allocation methodology. Any changes made are outlined below.
<i>No cross subsidy between price controls</i>	Companies should also ensure that there is no cross subsidy between price control units. 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.	In line with the separate binding price controls introduced in 2014, costs are compliant with RAG 5 'Guideline for transfer pricing in the water and sewerage sectors.'
<i>Principal use</i>	Where possible, capital expenditures 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.	Where possible assets and associated depreciation are directly attributed to the relevant price control and applied the principal use guidance for shared assets.

4. Recharges to/from associated companies

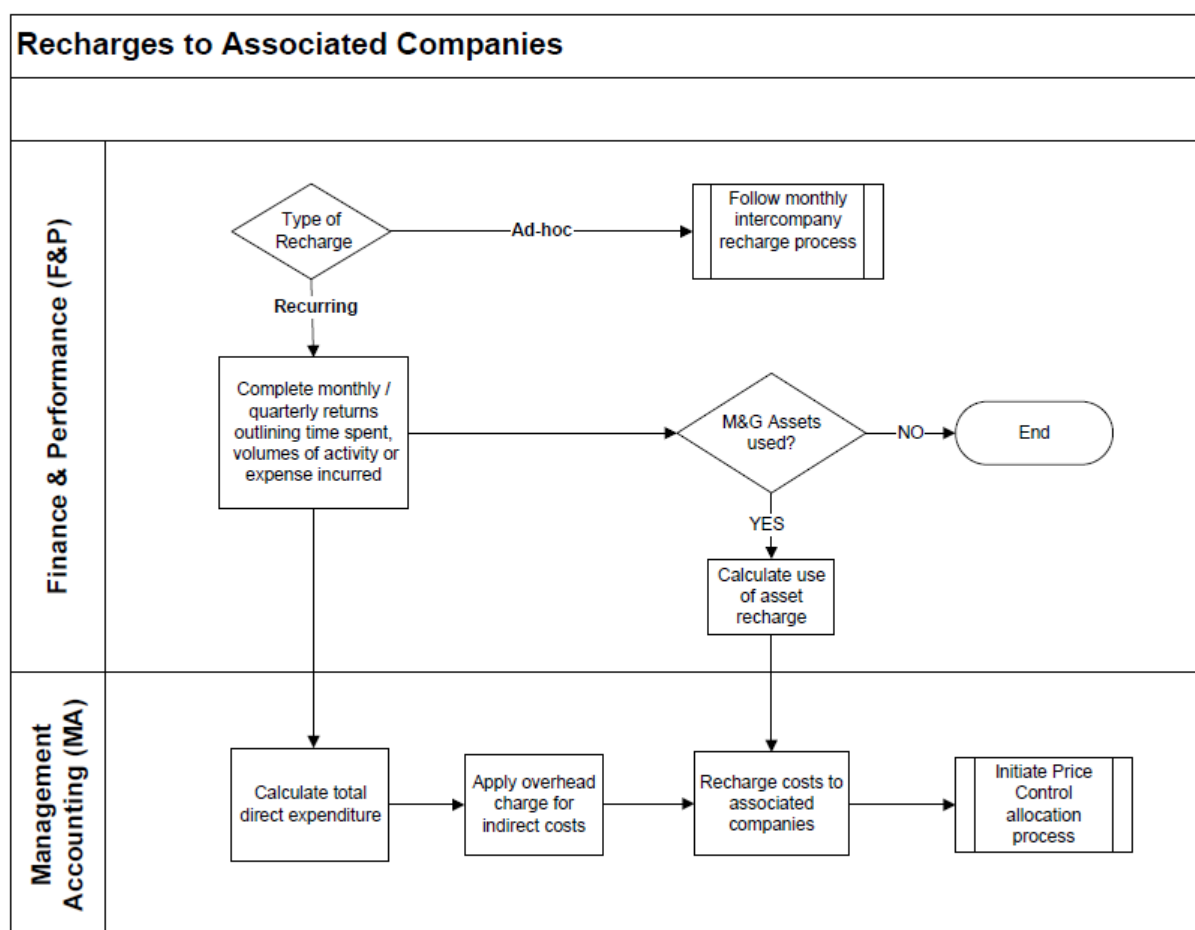
The process to allocate costs between price controls begins after services supplied by/to the appointee have been recharged.

The recharges can vary from ad-hoc costs to recurring charges. Ad-hoc or one off expenses are recharged via an intercompany process usually within the month they are incurred. There is an established management recharge process which is undertaken on a quarterly basis to transfer recurring expenses to/from associated companies. This process involves returns being completed which disclose time spent and expenditure incurred on activities which relate to associated companies. An overhead charge is added to this to account for the indirect costs associated with the activity. This is a percentage calculation which takes the expenditure on support functions over the total expenditure (excluding financing costs) undertaken within the business. The calculation is reviewed on an annual basis. The total direct and indirect cost is recharged to the relevant associated company.

Where management and general (M&G) assets are utilised in the provision of the service, a use of asset recharge is separately calculated and recharged.

The information is completed by the relevant support teams within the business and collated within Finance. The returns are reviewed by the Performance and Planning teams to ensure that recharges are accurate and complete. Any new activities within the company are raised by the analysts on an ongoing basis to ensure these are incorporated within the recharge process.

The price control allocation process therefore begins after recharges to/from associates has been completed.



Integration of Hafren Dyfrdwy operational activities into SAP

In the prior year, following the alignment of the England and Wales boundaries between Severn Trent and Hafren Dyfrdwy, the SAP system was configured to allow recharge of operational activities between the two companies.

Severn Trent Water records the costs for operational activities undertaken in Powys and recharges to Hafren Dyfrdwy and Hafren Dyfrdwy records the costs for operational activities undertaken in Chester and recharges to Severn Trent Water.

The recharge takes place using the SAP Work Force Management (WFM) functionality and planning and scheduling systems. The work order is booked to Severn Trent Water or Hafren Dyfrdwy based on the functional location (FLOC) of the asset. If the asset has a Hafren Dyfrdwy FLOC then an appropriate Hafren Dyfrdwy cost centre will incur the costs for the job.

Costs recharge automatically from Severn Trent to Hafren Dyfrdwy through time booked to work orders, at a rate calculated to include direct and indirect manpower and non-manpower costs (fuel, vehicle and PPE). The rate is reviewed annually by the Customer Network Operations Finance Team and is updated in WFM.

Any other costs booked to a work order not included in the rate (e.g. materials) will also follow the work order and move between Severn Trent Water and Hafren Dyfrdwy automatically.

A summary of the recharges can be found in the supplementary disclosures within the Annual Performance Report.

5. Operating costs accounting separation process

The Tagetik budgeting, planning and forecasting system is used to populate the operating expenditure section of wholesale Totex analysis and retail operating cost analysis (Tables 2B, 2C, 4D, 4E and 4F). Cost centre financials and cost driver price control allocation percentages are held in the system, allowing calculation of costs at a price control and business unit level.

Inputs into the system undergo a review process:

- first stage review is performed in the relevant business area;
- second stage review is performed by the regulatory accounting team and other regulatory stakeholders; and
- third stage review is performed by internal and external assurance providers to confirm the cost allocation principles comply with the regulatory requirements.

First stage review applies to all inputs, second and third line review is on a sample basis based on risk factors.

The table outputs of the model are reviewed and signed off by the senior finance management team for each respective area.

The operating costs accounting separation process is further detailed below:

Owner(s)	Process / activity
<i>Finance business partners – Production, Customer Delivery, Business Services, Capital Delivery & Commercial</i>	PRICE CONTROL AND BUSINESS UNIT/ACTIVITY ASSIGNMENT
	Identify 'direct' cost centres for each respective area and assign to business units within price controls.
	Identify 'shared' cost centres containing management costs, operational support costs and general and support costs which are utilised across price controls and determine appropriate cost driver to allocate the costs between price controls.
	Complete a process documentation template (PDT) for each cost driver. The PDT gives an overview of the business area and nature of activity (including non-appointed activities).
	The PDT also provides information on the cost driver applied, compliance to RAGs, and justification for assumptions made. The process for calculating the allocation percentages is documented.
<i>Finance business partners – Production, Customer Delivery, Business Services, Capital Delivery & Commercial</i>	Perform year end cost allocation calculations following the process outlined in each PDT to determine the year end allocation percentage.
	NON-APPOINTED AND THIRD PARTY COSTS
	Identify non-appointed and third party costs by referring to the guidance in the income categorisation table in RAG 4 to ensure completeness.
	Complete a PDT for each activity. The PDT gives a description of the non-appointed activities and the type of costs incurred. The PDT also outlines the transfer price basis for the activity (market/cost) including recharge of overheads.
	A use of asset recharge methodology is included to reflect the use of appointed assets in the non-appointed operations if applicable.

	A financing charge methodology is included to cover the cost of capital associated with financing the assets where applicable.
	The transfers to non-appointed and third party costs are made before further price control allocations are applied.
	Perform year end calculations and review calculations performed by Management Accounting on their behalf.
	APPLICATION OF ALLOCATIONS TO YEAR END FINANCIAL VALUES
<i>Group Finance – Regulatory Accounting & Reporting</i>	Assign cost centre and cost driver information in the PDTs to the applicable costs centres and cost groupings in Tagetik.
	Adjust the total costs from the Tagetik report to account for items which are not captured in the report e.g. revenue reclassifications and exceptional items.
	Perform year end cost allocation calculations for specific PDTs.
	UPSTREAM SERVICES ALLOCATIONS
<i>Group Finance – Regulatory Accounting & Reporting</i>	Determine upstream allocation principles by the use of financial/non-financial information or management estimate where management information is unavailable.
	Calculate and apply allocation percentages based on methodology provided above.
<i>Group Finance – Regulatory Accounting & Reporting</i>	RECONCILIATION
	A reconciliation is performed to ensure that the total operating expenditure has been allocated to a price control or classified as non-appointed and that all cost centres identified as having shared costs are zero post allocation.
<i>Finance business partner leads and senior finance managers for respective table owners Regulatory Accounting team Strategy & Regulation team</i>	REVIEW PROCESS
	Review the final accounting separation tables.

6. Changes in allocation methodology

Where it is not possible to allocate costs directly to price controls, we look to keep the methods of apportionment as consistent as possible. There are no material changes to the cost allocation methodology in this FY.

Enhanced management information to enable direct allocation or aid cost allocation

Wastewater rates costs

In prior years, wastewater rates have been apportioned across the upstream services within Wastewater Network plus and Sludge by using the MEAV of the assets.

In FY20, we undertook an exercise with our rates team to analyse the assets within sites that are specific to our Bioresources business. This analysis has enabled us to directly allocate wastewater rates costs between waste network plus and bioresources.

7. Wholesale variance analysis to the prior year

Wholesale Water

Opex analysis – excluding atypicals

<i>Operating expenditure</i>	<i>Current year figures (£m)</i>	<i>Prior year figures (£m)</i>	<i>Variance (£m)</i>	<i>Variance (%)</i>	<i>Commentary</i>
Water Resources					
<i>Power</i>	(7.7)	(9.0)	1.3	14.7%	Primarily driven by lower WIS in 2019/20 relative to 2018/19 which was impacted by the long periods of hot weather.
<i>Bulk supply</i>	(8.0)	(8.2)	0.2	2.5%	Higher costs from 3rd parties and the full year effects of HD Bulk purchases.
<i>Other operating expenditure - excluding renewals</i>	(14.3)	(18.7)	4.4	23.6%	YoY decrease due to less costs (increased costs in 2018/19 due to hot summer) and change in underlying allocation of costs to business unit resulting in shift from Water resources to treated water distribution.
<i>Local authority and cumulo rates</i>	(4.0)	(3.7)	(0.3)	-8.8%	Full year impact of changes in boundary alignments with HD on 1 July 2018.
Raw Water Distribution					
<i>Power</i>	(11.4)	(11.7)	0.4	3.1%	Primarily driven by lower WIS in 2019/20 relative to 2018/19 which was impacted by the long periods of hot weather.
Water Treatment					
<i>Power</i>	(4.6)	(4.6)	0.0	0.9%	Primarily driven by lower WIS in 2019/20 relative to 2018/19 which was impacted by the long periods of hot weather.
<i>Bulk supply</i>	(4.6)	(3.2)	(1.3)	-40.4%	Higher costs from 3rd parties and the full year effects of HD Bulk purchases
Treated Water Distribution					

<i>Power</i>	(31.5)	(32.1)	0.6	1.8%	Primarily driven by lower WIS in 2019/20 relative to 2018/19 which was impacted by the long periods of hot weather.
<i>Other operating expenditure - renewals expensed in year (infrastructure)</i>	(104.3)	(101.7)	(2.6)	-2.6%	Increased activity on mains renewal.
<i>Local authority and cumulo rates</i>	(38.1)	(37.5)	(0.6)	-1.7%	Full year impact of changes in boundary alignments with HD on 1 July 2018.

Capex analysis

Overall, the Water Capex net investment in 2019/20 was £492.1m (excluding atypicals). This is £80.8m (19.7%) higher than the full year investment in 2018/19, and is in line with our delivery programme which reflects investment to support delivery of our performance commitments and statutory requirements.

<i>Business unit</i>	<i>Current year figures (£m)</i>	<i>Prior year figures (£m)</i>	<i>Variance (£m)</i>	<i>Variance (%)</i>	<i>Commentary</i>
<i>Water Resources</i>	57.2	33.3	23.9	71.7%	Planned increase in Boreholes activity.
<i>Raw Water Distribution</i>	10.9	22.1	(11.1)	-50.4%	Main EVA works related to BRP completed in Year 4, resulting in YoY reduction.
<i>Water Treatment</i>	207.4	170.8	36.6	21.4%	Increase in Water Treatment works activity on tanks, e.g. Frankley PWR1.
<i>Treated Water Distribution</i>	216.6	185.1	31.5	17.0%	Treated Water Distribution increase due to S”S schemes on Dynamic Pressure Monitors and Tankers.
<i>Total</i>	492.1	411.3	80.8	19.7%	

Wholesale Waste Water

Opex analysis

Operating expenditure	Current year figures (£m)	Prior year figures (£m)	Variance (£m)	Variance (%)	Commentary
Sewage Collection					
<i>Power</i>	(10.2)	(8.5)	(1.7)	-19.4%	High rainfall driving additional usage offset by pricing benefit.
<i>Renewals expensed in year (Infrastructure)</i>	(38.4)	(32.7)	(5.7)	-17.4%	Increase in foul relates to planned increase in PWP work.
<i>Other operating expenditure - renewals expensed in year (infrastructure)</i>	(51.7)	(39.5)	(12.1)	-30.7%	Increased gross employee costs due to annual pay award and underlying allocation percentage; see corresponding in sewage treatment.
Sewage Treatment					
<i>Power</i>	(35.4)	(36.8)	1.3	3.7%	YoY pricing benefit.
<i>Other operating expenditure - excluding renewals</i>	(71.7)	(80.7)	9.0	11.1%	Increase in chemicals prices and chemical usage due to stricter compliance. Spend in line with 2017/18. YoY reduction partly driven by underlying allocation %.
<i>Local authority rates and cumulo rates</i>	(19.5)	(19.8)	0.2	1.3%	Lower 19/20 costs due to reductions in annual rates bill from rates reviews including higher rates refunds from previous years. Change of allocation methodology to direct for Bio assets.
Sludge					
<i>Power</i>	11.6	11.5	0.0	-0.4%	
<i>Local authority rates and cumulo rates</i>	(3.2)	(4.4)	1.2	28.0%	Lower 19/20 costs due to reductions in annual rates bill from rates reviews including higher rates refunds from previous years. Change of allocation methodology to direct for Bio assets.

Capex analysis

Overall the Waste Water Capex net investment in 2019/20 was £328.0m. This is £1.1m (0.3%) lower than the full year investment in 2018/19 and is in line with our delivery programme which reflects investment to support delivery of our performance commitments and statutory requirements.

<i>Business unit</i>	<i>Current year figures (£m)</i>	<i>Prior year figures (£m)</i>	<i>Variance (£m)</i>	<i>Variance (%)</i>	<i>Commentary</i>
<i>Sewage Collection</i>	94.4	93.2	1.2	1.3%	
<i>Sewage Treatment</i>	161.2	174.8	(13.6)	-7.8%	Planned decrease year on year on Water Framework Directive activity.
<i>Sludge</i>	72.4	61.1	11.3	18.4%	Increase in spend on THPs.
<i>Total</i>	328.0	329.1	(1.1)	-0.3%	

8. Retail variance analysis to the prior year

Retail household total operating cost of £115.4m and is £16.0m (16.1%) higher than the prior year. An analysis of significant variances compared to the prior year is outlined below:

Retail household

<i>Business unit</i>	<i>Current year figures (£m)</i>	<i>Prior year figures (£m)</i>	<i>Variance (£m)</i>	<i>Variance (%)</i>	<i>Commentary</i>
<i>Customer services</i>	(33.1)	(34.3)	1.2	3.4%	The favourable variance is largely driven by a reduction in the costs allocated to payment handling & network customer enquiries. This is driven by our programme to move contacts through digital channels, and a reduction in large incidents on last year.
<i>Debt management</i>	(8.0)	(5.7)	(2.2)	-38.9%	The adverse variance is driven by a debt recovery programme which has been started due a reduction in collections on our older debt.
<i>Doubtful debts</i>	(40.2)	(24.3)	(15.9)	-65.7%	A bad debt performance of 3.2% reflects management's best estimate of debt risk at the end of the financial year, resulting in an increased level of prudence in the bad debt provision year on year driven by a reduction in collection on our older debt plus an increase in the provision for a forecast on the impact Covid-19 will have on our collections.
<i>Meter Reading</i>	(4.3)	(4.8)	0.6	11.4%	The favourable variance is driven by efficiencies realised in the meter reading function.
<i>Other operating expenditure</i>	(22.2)	(22.8)	0.6	2.7%	The adverse variance is largely driven by the increase in water efficiency costs
Depreciation & amortisation total	(7.6)	(7.5)	(0.1)	-1.9%	Increase due to investment in Technology to enable improved customer service and support our channel shift strategy.

Retail non-household total operating cost of £6.3m is £3.2m (103.3%) higher than in the prior year primarily driven by an increase of £1.7m (64.2%) in services to developers.

9. APR Section 2 Methodology – Price review and other segmental reporting

2A Segmental income statement

The segmental income statement analyses the appointed activities' operating profit between price controls and summarises the recharges made to/from other segments for the use of fixed assets.

2A line item	Price controls	Data source	Process
Revenue price control	All	SAP general ledger codes which captures the financial values for wholesale and retail charges via an interface from the main billing system (Target).	Assign each revenue code to wholesale water and waste water charges and retail revenue to retail household. Refer to table 2I for further detail.
Revenue non price control	All	SAP general ledger codes which captures the financial values for all non price control revenue via the receivables billing ledger.	Separate general ledger codes are created for each non price control revenue stream. Each revenue stream is assigned to an income category using the guidance in the Income categorisation table included in RAG 4. Price control assignment takes place when the transaction is posted in SAP, against profit centres which are assigned to price controls. Specific items that are netted off against operating costs within the statutory accounts are grossed up and shown as revenue for regulatory reporting. Such examples are developer contributions for administration costs which are incurred in relation to new connections and recharges for repair of damages costs. A review is performed at the end of the year to ensure that the correct price control assignment has been made and adjusted where necessary.
Operating costs	Retail	Table 2C Operating costs analysis – retail	Operating costs from table 2C. Refer to table 2C for further detail.
	Wholesale water and waste water	Table 2B Totex analysis – wholesale.	Operating costs from table 2B. Refer to table 2B for further detail.
Depreciation and amortisation	All	Table 2D – Historic cost analysis of fixed assets	Depreciation and amortisation charges are charged to the principal user price control.
		`SAP fixed asset register	Refer to table 2D for further detail.

Other operating income	All	SAP fixed asset register	Analysis of profit/loss on disposal of assets by reference to the cost centre and related profit centre the asset was assigned to when in use.
Recharges to/from other segments	All	SAP fixed asset register and Accounting Separation model	Asset depreciation charges are used as a proxy for the transfer price recharges between price controls for the use of shared assets. All management and general asset cost centres are assigned an appropriate Opex cost driver to allocate costs across price controls. The same cost driver determines the relative proportion of depreciation that should be assigned to each price control. The price control with the largest allocation is deemed to be the principal user. The full depreciation cost for these assets is charged to the principal user. The recharge to/from segments is then calculated using the cost drivers allocation percentages applied to the depreciation charge.
Surface water drainage (SWD) rebates	Water	System report using data in main billing system (Target).	A system report is run which identifies the value and the volume of SWD rebates issued for the required period.

2B Totex analysis – wholesale

The wholesale Totex analysis disaggregates the wholesale price control costs into water resources, water network+, waste water network+ and sludge by assignment of business units outlined below:

<i>Price control</i>	<i>Business unit</i>
Water resources	Water resources
Water network+	Raw water distribution Water treatment Treated water distribution
Waste water network +	Sewage collection Sewage treatment
Sludge	Sludge collection Sludge treatment Sludge disposal

Assignment of cost centres into direct business units occurs at the same time that the price control assignment is carried out. Cost centres which are identified as being shared between price controls are allocated to a business unit by using either the same cost driver used to allocate at price control level or by a different cost driver if more appropriate. Cost centres which relate entirely to a price control but more than one business unit are allocated using appropriate cost drivers. Upstream services allocation occurs once the business unit allocation is complete.

Business unit allocations are explained below:

Operating Expenditure - water and waste water

<i>Operating expenditure</i>	<i>Expense type</i>	<i>Price control</i>	<i>Business unit allocation</i>
Power	Power	Water	Average pumping head allocation based on non-financial data in Table 4P. The average pumping head calculation methodology outlined in RAG 2 is applied and the reservoir classification outlined in RAG 4 is applied to arrive at water and water network + allocation.
		Waste water	Direct assignment to cost centre which is assigned to business unit based on their activities. For co-located sites, in the absence of a sub-meter, the electricity bill is allocated between sewage treatment and sludge treatment based on the Site Energy Management Plan (SEMP).
	Shared Carbon Reduction Commitment payments	Water and waste water	Allocated based on direct costs of power charged to water and waste water.
	Internally generated electricity	Water and waste water	Cost credit – direct to price control where it was generated (sludge). Cost expense – direct to price control where electricity was utilised at market rates.
Income treated as negative operating expenditure	ROCs	Water and waste water	Allocation based on Gwh generated - Water - 100% water resources (hydro generation). Waste water – 100% sludge treatment.
	Bio methane sales & RHI	Waste water	100% Sludge treatment.

	Sludge sales	Waste water	100% Sludge disposal.
Service charges	Abstraction charges	Water	100% Water resources.
	Discharge consents (water treatment)	Water	100% Water treatment.
	Surface water network	Waste water	100% Sewage collection.
	Discharge consents	Waste water	100% Sewage treatment.
Bulk supply	Raw water supplies	Water	100% Water resources - Elan Valley only.
	Treated water supplies		Other suppliers to be pro-rated based on the associated company prior year Table 4D APR splits between water resources & water network +.
	Bulk waste water supplies	Waste water	Pro-rated based on the associated company prior year Table 4E APR splits between waste network + and sludge.
Renewals expenses in the year (infrastructure)	Infrastructure renewals expenditure	Water and waste water	Refer to Capital expenditure section below.
Renewals expenses in the year (non-infrastructure)	Non-infrastructure (NI) renewals expenditure	Water and waste water	Non-infrastructure renewals expenditure is included in hired and contracted, materials and consumables and employment costs within the respective cost centres incurring the costs. To identify these separately a work force management report is run selecting the activity types associated with NI renewals. The expenditure of the activity types is deducted from the expense line in the relevant cost centres and reclassified to the NI renewals line.

Other operating expenditure	<ul style="list-style-type: none"> • Employment costs • Hired and contracted services • Materials and consumables • Other costs – utility costs, insurances, bad debt costs, OFWAT fees, fines, subscriptions, postage & printing, defined benefit administration fee, audit fees and recharges to/from other group companies 	Allocated to water and waste water directly based on activity or by the use of appropriate cost drivers	<p>Directly allocated to business units by the use of cost centres which are assigned to business units.</p> <p>Where other costs relate to more than one business unit they are allocated between the business units by:</p> <ul style="list-style-type: none"> • identifying specific cost drivers by retrieving the relevant management information; • management estimate where management information is not available; • allocation of management and supervisory costs in line with allocation methodology of direct teams; or • appropriate FTE cost driver depending on the operational area the costs are supporting
Local authority rates	This includes both local authority rates and cumulo rates.	Water (cumulo)	Pro rata to the gross MEAV value of infrastructure and non-infrastructure assets assigned to each water business unit.
		Waste water	Based on non-infrastructure gross MEAV of waste water assets into Sewage treatment and sludge treatment.
		Water and waste water (office buildings)	Floor space occupied.
Third party services	Fluoridation	Water	Water treatment
	Fire hydrants		Treated water distribution
	Bulk water supplied		Water resources (non-potable) and Water network + (potable) calculated in line with

		revenue charging methodology
Bulk waste water supplied		Waste network + and sludge costs calculated in line with revenue charging methodology
Hydro dams and reservoir management (Q1 only)		Water resources
Standpipe usage		Water treatment
Building water supplies		Water treatment
Rechargeable works for repair of damages		Treated water distribution
Rechargeable works for repair of damages	Waste water	Sewage collection
Bulk waste water supplied		Waste network + and sludge costs calculated in line with revenue charging methodology

Costs relating to general and support (G&S) activities are assigned to the appropriate cost line above and are allocated to price control and business units using costs drivers outlined in Section 11.

Capital expenditure

- A SAP business warehouse report produces a detailed view of infrastructure renewals expenditure and capital expenditure and income by business plan line (BPL). Each BPL consists of a series of individual projects, with the total of c.5000 projects over the capital programme.
- Each BPL is aligned to a regulatory driver and can have a one-to-one or one-to-many relationship. The drivers are listed below and recorded in the below lines of the Totex table:

<i>Regulatory driver</i>	<i>Table line</i>	<i>Infrastructure/non-infrastructure allocation</i>
Infrastructure renewals expenditure (IRE)	4D/E.5	100% infrastructure
Maintenance non-infrastructure (MNI)	4D/E.13	100% non-infrastructure
Enhance levels of service Quality Supply/demand balance	4D/E.14-15	Infrastructure/non-infrastructure allocation determined by the purpose code mapping which is assigned at source in SAP

- The regulatory mapping is assigned at source level in SAP with each project being assigned to a business plan line attributed to water resources, water network +, waste network +, bio-resources or management & general.
- The price control BPL assignment is determined by reference to the nature of the spend in the BPL against the regulatory assets, activities and boundaries outlined in RAG 4.
- An annual review of mappings is performed for the current year end. Where it is deemed that the mapping requires updating due to a change to the delivery of the project since the initial mapping (due to change in scope or solution), the regulatory assignments are updated.
- A download of the capital programme is reviewed at the year end by the Strategic asset planning team to identify any expenditure which may have been coded incorrectly at source so this can be corrected.
- The exercise also includes assigning the expenditure to business unit level to complete tables 4D and 4E. Assignment can be at the BPL in total or by analysis within BPL if appropriate. The business unit BPL assignment is determined by reference to the nature of the spend in the BPL/project against the regulatory assets, activities and boundaries outlined in RAG 4.
- The assignment of material schemes/projects is also reviewed by Strategic Asset Planning (in S&R).
- The total income and expenditure is reconciled to the year end schedules produced by the Capital Accounting team, the net IRE expenditure including IRE income is then recorded in to the operating expenditure section of the Totex tables.
- M&G expenditure is allocated as below:

<i>Capex spend</i>	<i>Price control/business unit allocation</i>
<i>IT projects – retail IT spend</i>	Allocated entirely to retail.
<i>IT projects – wholesale IT spend</i>	Based on management estimate.
<i>Transport projects</i>	Based on the portion of transport recharges in the year to each price control/business unit.
<i>Property projects</i>	Based on the nature of spend, the area of the business it benefits and the property/site it relates to.

Cash Expenditure

Cash expenditure items have been allocated as below:

Cash expenditure	Price control allocation	Business Unit allocation
<i>Pension deficit recovery payments</i>	Pro-rate cost against the number of employees in each price control who are members of the scheme.	Direct net employment costs at business unit level.

2C Operating cost analysis – Retail

Where cost centres do not have teams aligning to discreet retail activities, the initial allocation of costs into retail activities e.g. billing or payments handling have been apportioned based on management information or management estimate. The apportioned costs to the retail activities are subsequently allocated to retail household and non-household referring to RAG 2 for guidance on allocation.

Costs associated with the relevant cost centres are downloaded from the financial ledger using a SAP Business Warehouse report and used as the starting point for the allocation of costs to activities. In addition, there are certain costs which are recorded outside of the retail operational teams but which are included in the retail price control for regulatory reporting. These costs are identified and transferred from the relevant areas of the business.

Retail transfers to and from other business areas

Distribution Services Technicians (DSTs) – The activities associated with investigatory visits in relation to water incidents sit within the wholesale water teams. However, first time visits for issues that are on a customer property (where no further work is undertaken) and where there was no network issue found are considered retail activities. The cost of initial inspections has been taken from time and materials recording in SAP for these jobs. Direct overhead costs are then attributed to the jobs. The costs relating to these jobs are transferred to retail within the Customer Services activity.

Water Efficiency Team – The majority of the demand side water efficiency initiatives are performed in a wholesale operational cost centre within Severn Trent Water. The total expenditure of the Water Efficiency cost centre is transferred to retail and allocated 100% to Demand side water efficiency initiatives. The total of the expenditure transferred from wholesale together with the efficiency expenditure incurred within retail is compared to the retail water efficiency baseline for costs (calculated at AMP5 average costs). Any expenditure above the baseline is considered to be wholesale expenditure in relation to meeting wholesale outcomes. This element is therefore transferred back to wholesale and assigned 100% to Treated Water Distribution.

Customer Side Leaks – The activities in relation to fixing customer side leaks are undertaken by the wholesale water teams. They are identifiable and are captured in Workforce Management. The costs of the initial visit and follow up visit along with the associated FTE are transferred to retail and allocated 100% to Customer Side Leaks.

General and Support Expenditure – General and support expenditure is allocated to retail using appropriate cost drivers determined for each support function. Please refer to the section 11 for the general and support allocation methodology.

Allocation to Household (HH) / Non-household (NHH)

Severn Trent Water disposed its non-household retail business to Water Plus. All costs are recorded in HH and relate to HH.

There is also an allocation charge into retail NHH from Wholesale Developer Services. These are for services to:

- Provide developer information – deal with questions from developers where physical aspects of infrastructure are required to change, investigate and advise on implications;
- Provide connections for developers – including project management, contracting with third parties; and administer new connections.

Retail team responsibilities and allocation to activities

<i>Business Area</i>	<i>Team(s) / activity</i>	<i>Retail activity types</i>	<i>Cost allocation/driver</i>
Chief Customer Officer	Customer Delivery Strategic Management Team.	Cost is apportioned between: Billing, payments handling, debt management, vulnerable customer schemes, non-network customer enquiries and complaints, meter reading and maintenance, network customer enquiries and complaints, other direct costs; and wholesale price controls. Some of these costs are also apportioned out to G&S.	Business activity allocations of the cost centres which the management team support (excluding specific costs such as bad debts and charitable trust donations).
Performance & Planning Analyst	Performance & Planning teams align closely with key business areas to provide financial and operational support.	Cost is apportioned between: billing, payments handling, debt management, vulnerable customer schemes, non-network customer enquiries and complaints, meter reading and maintenance, network customer enquiries and complaints, other direct costs; and wholesale price controls.	Business activity allocations of the cost centres which the management team support (excluding specific costs such as bad debts and charitable trust donations).
Resource planning	Provides support to internal call centre teams in all aspects relating to Resource Planning; using data for forecast call volumes etc. to ensure we have the right people, in the right place, at the right time, to provide the right levels of customer service. Costs within these cost centres are predominantly people costs relating to the resource planning and scheduling teams.	The costs are split between billing, payments handling, non-network customer enquiries and complaints, meter reading, meter maintenance and network customer enquiries and complaints and NHH.	The resource planning cost centres are allocated to activities based on the overall allocations of the other cost centres (excluding costs such as bad debts and charitable trust).

<i>Business Area</i>	<i>Team(s) / activity</i>	<i>Retail activity types</i>	<i>Cost allocation/driver</i>
Customer Strategy	<p>The bad debt expense is also recorded in this area and directly allocated to doubtful debts.</p> <p>Teams consist of: External relationships – deal with vulnerable customers Debt strategy team – activity based debt management CARMS team - debt collection system admin team Partner accounts team - management of third party contracts for customer service and debt management agencies</p>	<p>An apportionment of the costs of the management team based on the consolidated total cost allocations of the other Customer cost centres.</p>	<p>Doubtful debt provision - 100% to doubtful debts.</p> <p>Annual contribution to the Severn Trent Trust Fund - directly allocated to the Charitable Trust Donations retail activity within Customer Services.</p> <p>The cost of paying third parties to administer our social tariff schemes, the Citizen's Advice Bureau, Auriga (Severn Trent Trust Fund) - directly allocated to the Vulnerable Customer Schemes retail activity within Customer Services</p> <p>The balance remaining in the Head of Strategy cost centre after removing the above costs, is a management overhead of the Customer Strategy function and needs be allocated to retail activities across the cost centres within Customer Strategy based on the value of each of the cost centres.</p> <p>The Partner Account Manager is a single cost centre. The activities within this cost centre relate to billing, payments handling, debt management, non-network enquiries and complaints. The split of the costs is based on a management analysis of costs and their relation to business units.</p>
Group Transformation	<p>These cost centres deliver process improvements and produce management information for the Customer management team.</p>	<p>Cost is apportioned between the relevant retail activity incurring the cost or to wholesale price controls if wholesale related.</p>	<p>Retail activity allocations of the cost centres which the management team support.</p>

<i>Business Area</i>	<i>Team(s) / activity</i>	<i>Retail activity types</i>	<i>Cost allocation/driver</i>
Customer Contact	This department comprises our customer contact centres and associated back office teams which have responsibilities in respect of billing, payment handling, debt management (inbound/outbound contact), meter reading and non-network enquiries and complaints and, network enquiries and complaints.	The costs of our customer contact cost centres are apportioned between billing, payment handling, meter reading and non-network enquiries based on volumetric call data, where the system identifies the reasoning behind the calls. An analysis of these call volumes has produced the split across the business units.	<p>The COSC and Customer Services costs comprise two cost centres. The activities within these cost centres relate to customer contact regarding enquiries and complaints around our network, billing and payment handling. The split of the costs is based on a management analysis of costs and their relation to business units.</p> <p>COSC is a contact centre for any calls relating to the network. Costs predominantly relate to manpower and are allocated to business activity network Enquiries & Complaints.</p> <p>There are also Back office teams responsible for and liaising with customers administering applications for Help When You Need It schemes (Social Tariff, Watersure, Water Health Check, Proactive Metering). The costs are directly allocated to Vulnerable Customer Schemes.</p> <p>There is a Complaints team responsible for management and resolution of account queries and complaints.</p>
Customer Experience	Ensures that dealing with Severn Trent is an experience that meets and exceeds expectations for all customers whatever their individual needs. This includes mapping and detailing quality processes, and management of customer complaints.	The costs are apportioned based on an average of all other retail cost centres excluding Chief Customer Officer and Performance & Planning.	Costs and activity volumes within this cost centre are driven by volumes of customer complaints. The costs are predominantly relating to people who are handling complaints plus amounts of compensation and gestures of goodwill paid to customers as a result of operational or billing issues.

<i>Business Area</i>	<i>Team(s) / activity</i>	<i>Retail activity types</i>	<i>Cost allocation/driver</i>
<i>Metering</i>	The Billing Enquires teams deal with investigation and resolution of customer's bill queries in each region. Undertaken by field based engineers (CSRAs) - predominantly people costs.	The total costs incurred and recorded within these cost centres can be allocated directly to a business activity within retail household.	100% non-network enquiries and complaints.
	Metering Scheduling team plan and schedule all of the Customer Service Resolution Advisors (CSRAs) field work, for the three billing enquiries teams - predominantly people costs.	The total costs incurred and recorded within these cost centres can be allocated directly to a business activity within retail household.	100% non-network enquiries and complaints.
	Customer Perf Team/ Contract Performance/ Field Performance are back office teams responsible for liaising with the customer re: new meter installation, meter exchanges (replacements) and other meter related data.	The total costs incurred and recorded within these cost centres can be allocated directly to a business activity within retail household.	100% non-network enquiries and complaints.
	The Meter reading team are costs relating to planning, scheduling and execution of meter reads. Predominantly people costs and costs of fuel, lease vehicles for meter readers the business activity are allocated to meter reading.	The total costs incurred and recorded within these cost centres can be allocated directly to a business activity within retail household.	100% meter reading.
	The NHH Bill Enquiry Team are costs relating to Meter installations, maintenance and removal (non-capex) – including planning and scheduling or work, pre-installation survey, design of work and costing, testing of meters. Predominantly people costs + costs of fuel and lease vehicles	The costs incurred and recorded within these cost centres can be allocated directly to business activity within retail household & Non household	100% Meter reading ; 10% allocated to HH and 90% allocated to NHH
	The IRM Team Manager cost centre containing the costs of the Amey Metering Contract - Installation, Repairs & Maintenance of water meters.	The total costs of the cost centre are charged to Water	100% Treated water distribution.

2D Historical cost analysis of fixed assets - Wholesale and Retail

The tangible fixed asset table is calculated allocating assets in the SAP fixed asset register to price control via use of cost centres and profit centres and allocating the work in progress (WIP) to price control via analysis of projects.

In the current year Severn Trent Water Limited has adopted IFRS 16 Leases retrospectively from 1 April 2019, the reclassifications and adjustments arising from the new leasing rules are therefore recognised in the opening balances at 1 April 2019. Right of Use assets have been included in table 2D.

	NBV at 31 March 2020 (£m)
Fixed assets	8,996.046
Right of Use assets	120.690
Total	9,116.736

FIXED ASSET REGISTER

The full historical cost fixed asset register is downloaded into excel. Each asset has a cost centre assigned to it. Additional attributes are added to the data to enable the completion of the fixed asset table:

- Infrastructure/non-infrastructure classification - this classification is based on the asset class code given to the asset
- Income/expenditure classification - as the fixed asset table excludes capital income (which is reclassified to deferred income in the balance sheet), all income asset class codes are excluded from the table
- Intangible/Tangible classification - Table 2D is only applicable for tangible assets, therefore intangible assets are excluded
- The profit centre that the cost centre is assigned to is added to the register by looking up to a SAP cost centre download provided by Management Accounting. This is used to determine the price control and the relevant business unit and support area for Management & General (M&G) assets
- An adjustment is made to change the profit centre where the profit centre assigned to the cost centre was set up incorrectly in SAP

M&G principal user assignments

The percentages from the G&S Opex allocations are applied to determine the principal user to be identified. This is the business unit with the highest percentage allocation. Where the finance business partner believes that the asset principal user is different from the Opex percentages or where there is no Opex activity in the cost centre, the principal user identified by the finance business partner is used instead.

Principal user cannot change year on year so once it has been assigned this is permanent. Recharges to/from calculations for Table 2A are then determined by multiplying the relevant depreciation by the Opex cost drivers

Management and general assets are assigned to a principal user using the following bases:

Business area	Basis of assignment
Information systems	Assignment using IS business area costings
Transport	Assignment on the basis of vehicle recharges
Property services	Assignment on the basis of floor space used

Business Planning	Assignment based on price control FTE
COSC	Assignment based on network control cost driver
Visitor sites	Assignment to water resources

Reclassifications

Other adjustments are made to record changes required to the underlying fixed asset register. This may be because assets have been posted to the incorrect cost centre at source or to include late adjustments at year end posted in Tagetik once SAP has closed.

Other adjustments

All entries in the fixed asset register are posted to the SAP general ledger in specific GL codes which only allow auto-postings from the fixed asset register and WIP listing. There is sometimes a requirement to enter journals in addition to the auto postings, these are posted into manual GL codes.

Year on year journals to manual codes include the gross depreciation accrual, abandonment depreciation accrual and WIP abortives accrual. The price control assignment is determined from the site the accrual relates to.

The other manual adjustments primarily relate to legacy adjustments arising when the company moved from Oracle to SAP. These are allocated to price control on an estimated % base allocation. These will be permanent journals which roll forward every year.

Other one-off adjustments relate to journals arising during the year end process but are posted directly into Tagetik rather than SAP as the ledgers have closed. The price control assignment is determined from the site the adjustment relates to.

As a result of detailed activities in preparation for PR19, additional review activities have been performed in relation to accuracy of assets assigned to cost centres and price controls. This has led to transfers in the adjustments line in the cost and depreciation sections of the fixed asset table which related to resetting the opening position of the adjustments outlined above.

WORK IN PROGRESS

The WIP ledger is extracted from SAP with line by line detail of project. Each project includes water/waste/bio resources descriptor. Water resources/networks split has been determined by comparison of the projects against their assigned business plan line which are water resources or water network + BPLs. The ledger outlines the closing allocation in WIP. The movement in WIP across price controls is determined by subtracting against the opening WIP balance by price control.

A final true up exercise is performed comparing the tangible capital expenditure additions to the tangible fixed asset additions. Differences arise between the two where a project has been assigned to a particular price control and capitalised in a cost centre which is not assigned to the same price control. The capital expenditure position is identified as the final position and differences are accounted for in WIP additions movement.

A final reconciliation is performed between the net book value of the tangible assets in the statutory accounts to the regulatory accounts, the only difference expected being capitalised interest.

2E Analysis of capital contributions and land sales – wholesale

Grants and contributions have been allocated between water and waste water in accordance with the nature of the income. Grants and contributions fully recognised in the income statement relate to IRE income. All other grants and contributions received are capitalised and amortised against depreciation.

Connection charges are contributions received from developers for service connection charges for installing a new service pipe and meter. (Water Industry Act s45).

Infrastructure charge receipts are contributions received in the year for new connections. This reflects a contribution to the costs of enhancing the local water or sewerage network. (Water Industry Act s146).

Requisitioned mains are contributions received from developers to requisition a new water main or sewer. (Water Industry Act s43, 55, 56 & 100).

Diversions are contributions received from local authorities, highway authorities and private companies to divert water mains or sewers. (Water Industry Act s185).

Other contributions are received from organisations towards the construction of specific capital projects, e.g. health authorities for fluoridation or government departments for environmental schemes.

Value of adopted assets is taken from our monthly adoptions reconciliation which represents postings to the ledger and are from the project manager in developer services.

Capitalised grants and contributions balance sheet

The opening value of capitalised grants and contributions (excluding adopted assets) has been brought forward as at 1 April. The total value of grants and contributions capitalised in the year agrees to the total value of grants and contributions recorded in the column 'capitalised and amortised against depreciation'. The total value of amortisation of the income assets agrees to the value released to the income statement in the year.

Proceeds from disposal of protected land

These are the net proceeds, after the deduction of all offsetting costs from disposals of protected land.

2F Household - revenues by customer type

The Target MI billing system reports on customer types. For regulatory accounting purposes, a different customer field (Property Usage Code (PUC)) is used to split revenues into customer types.

Properties categorised as voids (properties which have not received a water or waste water service during the year ending 2018-19) are excluded from the above customer categories, these make up an insignificant proportion of the total balance (less than 0.4%).

Customer numbers are provided from STW corporate source systems for all categories with the exception of line two (unmeasured waste water only) and line five (measured waste water only), which is provided by other water companies (OWCs), who bill on our behalf.

The customer numbers data has been subject to assurance in accordance with our Company Assurance Framework.

2G/H Non-household water and waste water - revenues by customer type

These tables are longer required following the disposal of our retail non-household activities to Water Plus in 2016.

2I Revenue analysis and wholesale control reconciliation

The wholesale/retail charges are determined as part of the Charges Submission process. Agreed tariffs are assigned a unique code which maps them to a customer type. Each code is mapped to a GL account and a cost centre. This enables the interface from Target to SAP so transactions can be posted into SAP.

All non-tariff general ledger income codes have been assigned to the below categories using guidance within the RAG 4 income categorisation table:

- Bulk supplies – water
- Bulk supplies – waste water
- Other third party revenue
- Other appointed revenue

2J Infrastructure network reinforcement costs

- A SAP business warehouse report produces a detailed view of infrastructure renewals expenditure and capital expenditure and income by project.
- Each project is assigned to a business plan line (BPL) which aligns to regulatory reporting and internal categories to allow reporting of capital expenditure against planned activity.
- Specific business plan lines relate to infrastructure network reinforcement costs where the investment driver relates to managing supply demand balance specifically in relation to growth.
- Expenditure on low pressure improvements related to growth is included but expenditure on low pressure improvements related to enhanced service levels is excluded from the table.
- Expenditure on other non-growth related supply demand balance projects are excluded e.g. hot weather action plans
- The projects in the infrastructure network reinforcement BPLs are reviewed by a subject matter expert on completion of the table to ensure that expenditure has been correctly coded at source with adjustments made where required.

Water

- BPLs identified as water infrastructure network reinforcement growth lines are:
 - Network reinforcement off-site Capex - local reinforcements, hydraulic capacity (undersized assets) and strategic growth reinforcements
 - On-site Capex – new development and new connections expenditure
- A further categorisation of the expenditure is made into distribution and trunk mains and pumping and storage facilities where the former is all infrastructure expenditure and the latter is non-infrastructure. This categorisation is derived from the purpose mapping for each project which identifies if the spend is infrastructure (below ground) or non-infrastructure (above ground) related.

Waste

- Our existing Waste structure only has one network reinforcement growth BPL, therefore an analysis of projects to identify the on-site and off-site expenditure is conducted by a subject matter expert.
 - Network reinforcement off-site Capex - local reinforcements and strategic growth reinforcements
 - On-site Capex – requisitions and on-site adoptions expenditure
- A further categorisation of the expenditure is made into sewage collection (foul, combined and surface water only systems) and pumping and storage facilities where the former is all infrastructure expenditure and the latter is non-infrastructure. This categorisation is derived from the purpose mapping for each project which identifies if the spend is infrastructure (below ground) or non-infrastructure (above ground) related.
- Sewage collection expenditure is allocated 95% foul and combined systems and 5% surface water only systems. This is a management estimate based on analysis of projects which indicate that the majority of growth is as a result of foul flows and occasionally relate to upgrading the surface water systems.

2K Infrastructure charges reconciliation

The majority of the lines of the data is populated from other tables (table 2E and 2J).

Section A - Impact of infrastructure charge discounts

- Net infrastructure charge income is populated from table 2E.
- A SAP business warehouse report is run to find the value of infrastructure discount given on invoice. Any infrastructure charge refunds that have not been processed through SAP are added to the value to get total discount given.

Section B - Comparison of revenue and costs

- Table 2K is a new requirement therefore there is no variance brought forward from prior year.
- The infrastructure charges revenue value is populated from gross revenue in section A of the table.
- The costs are populated from table 2J.

10. Upstream services

The wholesale operating and capital expenditure is allocated to upstream service once the business unit allocation is complete by applying the below approach:

- (1) direct where appropriate;
- (2) by identifying specific cost drivers by retrieving the relevant management information;
- (3) management estimate where management information is not available;

Capital expenditure allocated to upstream services is at the same point as business unit allocation by business plan line and purpose code analysis or once business unit allocation has occurred (if business plan line and purpose code cannot determine this) by use of appropriate cost driver based on management information or management estimate.

The table definitions in RAG 4 are used to identify the boundary points and assets in each upstream service to aid cost allocation.

Upstream Services - Water

<i>Business Unit / Upstream service</i>	<i>Cost type</i>	<i>Upstream allocation</i>
<i>Water resources (abstraction licences, raw water abstraction)</i>	<i>Abstraction charges</i>	100% Abstraction licences
	<i>All other costs</i>	100% Raw water abstraction
<i>Raw water distribution (raw water transport, raw water storage)</i>	Power	100% Raw water transport.
		Raw water storage uses negligible power
	Local authority rates	Allocated to raw water transport and raw water storage on the basis of the current cost gross book value of the assets attributed to each service.
	All other costs	100% Raw water transport
<i>Water treatment</i>		No disaggregation of water treatment to upstream services is required
<i>Treated water distribution</i>		No disaggregation of water treatment to upstream services is required

Water - Derivation of the quantities used to calculate the unit cost information

Licensed volume available

The total volumes available from Severn Trent licenced abstractions are recorded centrally in mega litres (Ml) in the 'Licence Budget' spreadsheet. The spreadsheet is based upon the invoices STW receive for all of our abstraction licences from the Environment Agency (EA) and Natural Resources Wales (NRW). The spreadsheet captures the abstraction cost along with the amount of water STW are licenced to abstract in any one year by area. The annual volume data is then reconciled with an internal database that holds all STW's abstraction licences.

Volume abstracted/transported

The total daily volume data from Operator readings and telemetry data is collected from all Severn Trent treatment sites outputs. These numbers are then totalled for all sites for the year to give us our abstracted and

transported data. The abstraction figure includes all water that we abstract under our own licences. This then forms the basis of the water volume transported, but any raw water we purchase from or sell to other water companies is then added in.

Average volume stored

The average volume stored is the average of the weekly recorded stored volumes for the year.

Distribution input volume (Water treatment)

Water distributed into supply is calculated monthly and is based on meter readings recorded from across the estate (including exports).

Distribution input volume (Treated water distribution)

Total treated water put into the distribution network is calculated monthly and is based on meter readings recorded from across the estate (includes bulk imports from other companies and excludes bulk exports).

Water population

The population is derived from billed properties numbers and estimation of occupancy derived from third party data and also includes small estimate for transient population (students, migrants).

Upstream Services – Waste water

Business Unit / Upstream service	Cost type	Upstream allocation
<i>Sewage collection (Foul, surface water drainage, highway drainage)</i>	All cost types	<p>Allocated on the basis of volume information collated during a 2018/19 project to raise visibility of sewerage charges for customers for a) foul water (including trade effluent), b) surface water draining from eligible premises and c) surface water draining from highways.</p> <p>Definitions of each category are as follows:</p> <p>Foul water is Dry Weather Flow (DWF) with trade effluent at Sewage Treatment Works (STW);</p> <p>Surface drainage are surfaces types associated with residential and commercial premises that drain to our systems, e.g. Paved (Non Road), Domestic Drives & Patios;</p> <p>Highway is any public road or other public way on land. It is used for major roads, but also includes other public roads and public tracks.</p>
<i>Sewage treatment (Sewage treatment and imported sludge liquor treatment)</i>	All cost types	Imported sludge liquor treatment allocation - pro-rated on the proportion of sewage treatment load represented by liquor treatment activity.
<i>Sludge (Sludge transport, sludge treatment, sludge disposal)</i>	All cost types	Disaggregation between sludge transport, sludge treatment and sludge disposal occurs at the cost centre assignment stage in the accounting separation process applying the definitions in RAG 4, therefore no further disaggregation is required.

Waste water - derivation of the quantities used to calculate the unit cost information

Volume collected (foul, surface water drainage, highway drainage)

The reporting requirements for this line requires the calculation of collected volumes entering the sewerage system from foul connections (toilets, showers etc.), surface water drainage (roofs and paved areas appertaining to property) and highway drainage. This includes flow arriving at the sewage treatment works (measured using data from MCERT flow meters) plus unmeasured flow discharged to watercourses from surface water sewers and combined sewer overflow spills. Verified hydraulic sewer models are used to calculate the unmeasured (non-MCERT) flows to derive the additional collected volumes not included within the MCERT measured flows. This analysis is also used to calculate the split between foul, surface water drainage and highway drainage to take account of rainfall volumes during the reporting year.

Biochemical Oxygen Demand (BOD) (sewage treatment and disposal)

This figure is firstly taken directly from the reported BOD/d load figure from 'Table 4S - Non-financial data - sewage treatment – Wholesale', line 4S.7 - Total load received. The number is then multiplied by 365 (days) and divided by 1000 to give tonnes BOD/annum.

Biochemical Oxygen Demand (BOD) (sludge liquor treatment)

We have considered the following types of sludge liquors - raw sludge dewatering (from satellite sites and sludge treatment centres), raw thickening and digested dewatering).

Raw sludge dewatering at satellite sites (Coalport)

Volumes of sludge exported from satellite sites are recorded by contractors. The volume of sludge produced at the treatment works (prior to dewatering) is calculated using the TDS exported and assuming 1% dry solids (PDE standard design figure). Liquor volume is calculated by subtracting the volume of cake from the volume of raw cake produced. It is assumed that polymer and washwater adds 36% to the total volume of liquor. The BOD load is calculated assuming a BOD concentration of 2,060mg/l. There is no liquor treatment at Coalport.

Raw sludge dewatering at sludge treatment centre (Minworth)

Imported sludge quantities are looked up from the data used to calculate row 4R.32. The volume of cake produced from imports is calculated assuming 25% dry solids. The liquor volume and the BOD load is calculated in the same way as for raw sludge dewatering at satellite sites.

The tds of indigenous sludge is calculated as the digester feed minus imports. The volume of indigenous sludge before dewatering is calculated assuming 5.3% dry solids prior to dewatering (sludge is thickened on belts prior to dewatering – this liquor is not bioresources). The dry solids value is based on digester feed data for 2017/18 which is the last year before the THP was installed). The liquor volume and the BOD load is calculated in the same way as for raw sludge dewatering at satellite sites.

Raw sludge thickening

As per the guidance in RAG 4.08, we have only included liquors from raw sludge thickening that comes under the bioresources price control i.e. where imports are thickened or indigenous sludge is thickened with imported sludge. Imported and indigenous sludge volumes are calculated in the same way as for digested sludge dewatering. If only some indigenous sludge is co-thickened with imports, then only liquors from that sludge has been included in the calculation. Where imported sludge % dry solids are greater than the digester feed % dry solids, it has been assumed that there are no liquors from the imports. Liquors from any co-thickened indigenous sludge has been included.

The volume of liquor is calculated using the same methodology as for raw sludge dewatering. The total BOD load from raw sludge thickening liquors has been calculated assuming a BOD load of 1,460mg/l.

Volume transported (sludge transport)

The volume of sludge transported is the sum of the volume transported by tanker and the amount transported by pipeline.

To obtain the volume of sludge transported by tanker, the data set used to calculate line 4R.32 - Total measure of inter-siting 'work' done by tanker is used. This identifies all of the tanker journeys from satellite sites to sludge treatment centres. Sludge discharged to the head of the works is not included.

To obtain the volume of sludge transported by pipeline, the data set used to calculate line 4R.31 - Total measure of inter-siting 'work' done by pipeline is used.

The volume of sludge transported from Cannock to Four Ashes is assumed to be the same as the Four Ashes digester feed – this is obtained from the JRP loggers.

The volume of primary sludge transported from Coleshill to Minworth is not measured. An estimate of tds is obtained by multiplying the Coleshill population equivalent by 40 g/hd/day. The volume of sludge transported by this pipeline has been calculated by multiplying this value by 1.5% dry solids.

The total volume transported by tanker and pipeline for Severn Trent is then calculated and produced in the summary tab of the "Data Return 2019 20 4E 25 calcs" spreadsheet.

Dried solid mass treated (sludge treatment)

This figure is taken directly from the reported Total sewage sludge produced figure from Table '4R - Non-financial data - Wastewater network and sludge - Wholesale wastewater', line 4R.25.

Dried solid mass disposed (sludge disposal)

This figure is taken directly from the reported Total sewage sludge disposed figure from Table '4R - Non-financial data - Wastewater network and sludge - Wholesale wastewater', line 4R.30.

Waste water population

This value is calculated from the ONS CACI populations by postcode which are summed for each works catchment and then minor adjustments are made to allow for non-counted populations and small catchments.

11. General and support allocation methodology

General and support costs are identified in the ledger by cost centre. These are apportioned between water, waste and retail following the rules detailed in the table below.

For some central functions where the tasks do not specifically relate to water, waste or retail, costs are allocated based on a FTE allocation percentage.

Employee FTE percentages have been used for allocation of general and support costs for specific functions across price controls and for a number of shared cost centres whose activity straddles more than one price control.

In SAP, FTE's are assigned to individual cost centres. A SAP business warehouse report identifies the number of FTE's in each cost centre on a monthly basis. This captures the below employees:

- Direct – employees on the payroll, including fixed term contractors
- Indirect – employees hired via our recruitment agency partner as contractors/agency

The average number of FTE's over the 12 month period is calculated for each cost centre.

Where FTE costs have been capitalised, these have been excluded to reflect the costs removed from operating expenditure. For costs identified as non-appointed, FTE's related to this activity have been removed based on the material costs associated with these activities.

Allocation of general and support expenditure between business areas.

Type of cost	Basis of Allocation	Process
Group Commercial – Stores	Stores issues	Costs are allocated directly to water, waste water, and retail based on the volume of stores issues that have been charged to a cost centre.
Group Commercial – Transport	Vehicle and plant recharges are downloaded from SAP.	Transport is allocated directly to water, waste water and retail based on the internal vehicle and plant recharged throughout the year.
	FTE	Where the recharges have been posted against general and support business areas, the costs are allocated between water, waste water and retail using FTE.
Group Commercial – Procurement	Timesheets	Employees have estimated the proportion of their time spent in each price control and business unit via timesheets. Roles within Capital delivery and Commercial teams and Business Services team support specific contracts, such as Water Distribution, Water Treatment etc. An overall weighted average is calculated and applied to the overall Procurement costs that need to be allocated.
Group Commercial – Value Transformation & Support	Timesheets	The Commercial Support team consists of the Value Transformation and Performance & Governance teams: the former also complete timesheets, the latter support the main

		Procurement team so are allocated on the same basis.
<i>Directors</i>	<p>Manpower – Timesheets</p> <p>Non-manpower – Transactional Analysis (Management Information)</p>	<p>Manpower costs are allocated based on completion of time sheets splitting out time spent working in water, waste water and retail and relevant business units. A transactional analysis is carried out on non-manpower to allocate any costs directly to price controls/business units then costs are allocated based on FTE (including third party contractors).</p>
<i>General Counsel</i>	Price control FTE (including third party contractors).	The costs are allocated on a basis of FTE (including third party contractors) between water, waste water and retail.
<i>Human Resources</i>	Price control FTE (excluding third party contractors).	The costs are allocated on a basis of FTE (excluding third party contractors) between water, waste water and retail as the contractors do not utilise the services of the HR team. The exception to this is Technical training where courses are delivered primarily to water/waste water (and retail HH if applicable) and allocated based on attendance; and any balance (where training has been undertaken within G&S) has been pro-rated.
<i>Strategy & Regulation – Regulation</i>	Manpower - A summary of costs are downloaded from SAP and split between manpower costs (1/9 th retail & 8/9 th water & waste water allocation); and	Manpower costs are allocated on the basis of 1/9 th to retail and remaining 8/9 th are allocated to water and waste water based on a 50:50 split for each price control so as not to favour one wholesale price control over another.
	Non-manpower – Transactional Analysis (Management Information)	A transactional review is carried out for non-manpower costs to identify any costs that can be directly allocated to price controls. The balance is then also split 1/9 th retail and 8/9 th water and waste water. Water and waste water are allocated equally to avoid bias between price controls.
<i>Strategy & Regulation – Strategy</i>	Manpower - A summary of costs are downloaded from SAP and split between manpower costs (1/9 th retail & 8/9 th water & waste water allocation); and	Manpower costs are allocated on the basis of 1/9 th to retail and remaining 8/9 th are allocated to water and waste water based on a 50:50 split for each price control so as not to favour one wholesale price control over another.
	Non-manpower – Transactional Analysis (Management Information)	A transactional review is carried out for non-manpower costs to identify any costs that can be directly allocated to price controls. The balance is then also split 1/9 th retail and 8/9 th water and waste water. Water and waste water are allocated equally to avoid bias between price controls.
<i>Strategy & Regulation – Communications</i>	Price control FTE (including third party contractors).	<p>Manpower costs are allocated on a basis of FTE (including third party contractors) between water, waste water and retail.</p> <p>A transactional review of non-manpower is carried out on the transactions for items that relate specifically to water, waste water and retail; the</p>

	Non-manpower – Transactional Analysis (Management Information)	remaining costs are allocated to price controls based on company FTE.
<i>Finance, Assurance & Business Intelligence</i>	Price control FTE (including third party contractors).	The costs are allocated on a basis of FTE between water, waste water and retail.
<i>Insurance</i>	Price control FTE (including third party contractors).	Direct insurance costs are allocated direct to price control. Remaining insurance costs are allocated on basis of FTE between water, waste water and retail.
<i>Miscellaneous Reporting</i>	Various allocation methods used depending on the cost to allocate between price controls unless there are any directly attributable costs in Miscellaneous Reporting which are removed from the G&S allocation.	<p>Costs are allocated to price controls on a line by line basis, depending on the nature of the costs and an assessment of the most appropriate cost driver.</p> <p>The material items are listed below:</p> <p>LTIP costs are allocated on the same basis as Directors;</p> <p>DB pension admin costs/SAYE costs are allocated on the basis of FTE (excluding third party contractors).</p>
<i>Technology</i>	Wholesale and retail FTE (including third party contractors).	<p>As Severn Trent Water operates a hot-desking policy, it is considered that headcount is an appropriate driver to use as the allocation materially relates to number of computers.</p> <p>IS support costs are attributed to specific IS systems which are then allocated to business areas, wholesale, retail or general and support using headcount numbers.</p> <p>Wholesale is further allocated between water and waste water based on wholesale headcount.</p> <p>IS costs which are across the whole business e.g. SAP costs are General and support IS costs are allocated across water, waste water and retail in proportion to the value of costs that are already assigned to these areas.</p>
<i>Property – Facility Managed (FM) sites</i>	Occupation of FM sites is based on HR site occupation split by the Price Control business unit they work in or are allocated to.	<p>SAP HR report with employee location and cost centre coding provides the data source.</p> <p>Costs are allocated based the occupation of the sites and the employees cost centre price allocation to establish the Price Control usage of the site.</p>

<i>Property – Wholesale Operational sites & Compliance</i>	Transactional spend analysis from SAP download reports and supporting invoice documentation.	A transactional analysis of the operational site costs cost centre is performed to identify spend by site and therefore the price control business unit.
<i>Property – Portfolio Management</i>	Allocated on the Property estate portfolio numbers by price control / business unit. SAP Reports are downloaded for Portfolio Manager Cost centres cost.	Allocate the portfolio management cost by the price control business number of property titles. This is after recharging the cost of collecting and managing rental income
<i>Property Visitor Experience Team (VET) sites</i>	Allocate the VET costs based on the work undertaken by the Rangers (Manpower) and the costs incurred in catchment management of the reservoir sites and the management of public access visiting the site.	These costs relate to the running of the Visitor Centre sites for public access (reservoirs). The costs are allocated to Water Resources.
<i>Property Services Manager</i>	Allocated pro-rata against the weighted average price control allocation of all other cost centres (above).	SAP report of central management overhead cost centres spend and price control allocation of above property services allocation.
<i>Property – Disaster Recovery</i>	The spend is allocated based on the workstation occupancy Disaster Recover plan.	The Disaster Recovery Seating Plan policy document details how the space is to be used in the event of disaster recovery at the head office being invoked.
<i>Property - Facility Management (FM) Sites & Regional Ops Manpower</i>	The spend is allocated based on the weighted average allocation of “wholesale sites” (Ops) and FM sites)	These costs relate to the central operational management of running both FM & operational sites. SAP reports are downloaded for FM Cost centre cost. The manpower costs for FM Sites / regional manpower cost centres are pro-rata allocated on the price control business unit cost of the combined FM and wholesale operational cost centres, whereas the central Opex FM costs is allocated based on the pro-rata proportional price control business unit cost of the FM sites only.

A summary of the G&S allocation by support function is outlined below:

<i>Support area</i>	<i>Water resources</i>	<i>Water network +</i>	<i>Waste network +</i>	<i>Sludge</i>	<i>Retail household</i>	<i>Total appointed</i>
Group commercial (including Transformation)	1.3%	44.5%	37.7%	7.3%	9.2%	100.0%
Transport	2.3%	43.1%	30.8%	18.5%	5.3%	100.0%
Directors	11.8%	37.1%	28.5%	10.9%	11.7%	100.0%
General counsel	8.0%	30.7%	33.0%	12.3%	16.0%	100.0%
Human resources	9.2%	35.8%	26.2%	9.0%	19.8%	100.0%
Strategy & regulation (incl. Communications)	9.1%	31.6%	31.9%	13.1%	14.3%	100.0%
Finance, Assurance & BI (incl. Insurance & Misc. Reporting)	7.7%	35.1%	33.1%	8.8%	15.3%	100.0%
Technology	6.3%	27.9%	29.8%	9.6%	26.4%	100.0%
Property	6.6%	37.2%	39.8%	1.9%	14.5%	100.0%

12. Capital expenditure process

Capital investment framework (CIF)

The Company's capital investment framework (CIF) manages large capital programmes. Capital projects go through a formal approval process as follows:

Owner(s)	Process / activity
<i>Strategic Asset Planning</i>	Promote projects in line with the Control Framework and business requirements, including a financial review with Finance & Performance teams.
<i>Project Manager</i>	Submit a business case template (project/ application) outlining the operating and capital expenditure.
<i>Programme Board</i>	Review and approve projects.
<i>Investment Governance Analyst</i>	Scrutinise project applications and assess whether operating costs and capital expenditure have been allocated correctly. In the event that they disagree with the proposed accounting treatment the project manager is advised accordingly. In certain circumstances, the guidance issued by the Analyst Team may be contested by the project team. In such cases the proposal is referred to Group Finance who after referring to the appropriate International Financial Reporting Standard or Regulatory Accounting Guidance, provide a defining judgment on the issue.
<i>Group Finance</i>	Issue a guidance note to aid business users in the preparation of their capital investment proposals. This tends to occur for more complex areas where the applicable accounting principles, as defined in the capital expenditure accounting policy, are less easily understood by non-finance professionals.

Labour, pensions and overhead absorption rates ("Burdening")

This is a process that enables the recovery of costs from departments (primarily Support) whose activities are indirectly linked to the capital programme. The burdening process calculates these costs and allocates them to capital accordingly.

The overhead burden rate is calculated as follows:

Total allowable staff and support function costs to be recovered divided by the gross annual investment programme expressed as a percentage.

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