# **Severn Trent Water Limited**

**Accounting Separation Methodology Statement** 

Year ended 31 March 2019

## Severn Trent Water Accounting Separation Methodology Statement

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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 (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

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

Principle	OFWAT requires that	At Severn Trent Water
Transparency	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	Our accounting separation methodology is transparent. Direct costs to price controls are identifiable and can be traced back to our SAP ledger.
	explained to enable robust assurance against this guidance.	Methodologies for allocated costs are captured in PDTs.
Causality	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.
Non- discrimination	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.
Objectivity	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.
Consistency	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.
No cross subsidy between price controls	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.'
Principal use	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 current 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 will 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
- 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.

	Owner(s)	Process / activity
Finance business partners – Production, Customer Delivery,		PRICE CONTROL AND BUSINESS UNIT/ACTIVITY ASSIGNMENT
	Business Services, Capital Delivery & Commercial	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.
		Perform year end costallocation calculations following the process outlined in each PDT to determine the year end allocation percentage.
	Finance business partners – Production, Customer Delivery,	NON-APPOINTED AND THIRD PARTY COSTS
Business Services, Capital Delivery & Commercial	Business Services, Capital Delivery & Commercial	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.

The operating costs accounting separation process is further detailed below:

	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.
Management Accounting	APPLICATION OF ALLOCATIONS TO YEAR END FINANCIAL VALUES
	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 costallocation calculations for specific PDTs.
Management Accounting	UPSTREAM SERVICES ALLOCATIONS
	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.
Management Accounting	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 postallocation.
Finance business partner leads and senior finance managers	REVIEW PROCESS
for respective table owners Regulatory Accounting team Strateav & Reaulation team	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. However, the material changes in the basis of allocation compared to the previous year are outlined below:

#### Enhanced management information to enable direct allocation or aid cost allocation

#### Water power costs

In the previous year the average pumping head calculation was updated to reflect the specific calculation guidance in Appendix 1 of RAG 2.

In the current year although the calculation basis has not changed the power costs have been allocated in accordance with the classification of reservoirs in RAG 4:

Water resources (raw water abstraction) reservoirs are those that have:

- (1) their own abstraction licence or
- (2) natural catchment or
- (3) support downstream abstraction or
- (4) None of the attributes of (1) to (3) above but have 15 days or more usable storage

*Water network + (raw water storage) reservoirs are those that are:* 

Storage reservoirs and other storage assets that are not captured by the definitions in raw water abstraction and have less than 15 days usable storage

Where raw water is transported between water resources assets (e.g. between water resources reservoirs), the assets supporting this transport should also be included in water resources.

We have undertaken an exercise to establish which price control each of our reservoirs falls in to and any power costs relating to this activity have been treated in the same way.

## 7. Wholesale variance analysis to the prior year

Wholesale Water

#### Opex analysis – excluding atypicals

Operating expenditure	Current year figures (£m)	Prior year figures (£m)	Variance (£m)	Variance (%)	Commentary
Water Resources					
Power	(9.0)	(4.2)	(4.8)	-114.4%	Underlying increase in power costs predominantly due to increased tariffs, together with increased volumes due to additional demand over hot weather period, marginally offset with lower CRC costs due to lower gross carbon emissions.
					Increased allocation of power to water resources where raw water has been transported between water resources assets, previously the allocation of power for these distribution assets was in raw water distribution.
					Minimal net favourable variance arising from transfer of assets between Severn Trent Water and Hafren Dyfrdwy.
Abstraction charges/ discharge consents	(11.4)	(11.3)	(0.1)	-0.8%	Marginal increase in abstraction licences due to transfer of water resource assets to Hafren Dyfrdwy.
Bulk supply	(8.2)	(9.0)	0.8	8.9%	Increased bulk supply activities to Hafren Dyfrdwy due to boundary alignment, offset with favourable variable arising from true up of prior year accruals.
Other operating expenditure - excluding renewals	(18.7)	(15.0)	(3.7)	-24.8%	Increased gross employee costs due to annual pay award and increased in-house labour. Lower levels of own work capitalised due to reduced programme of works compared to the prior year. Increased operating costs due to hot weather incident activities over the summer and operational recovery activities in the second half of the year.

Local authority and cumulo rates	(3.7)	(2.1)	(1.6)	-76.4%	Underlying increase in total rates relating to CPI uplift and transfers of assets between Severn Trent Water and Hafren Dyfrdwy which have then been allocated based on revised GMEAV of assets.
Raw Water Distribution					
Power	(11.7)	(10.8)	(0.9)	-8.7%	Underlying increase in power costs predominantly due to increased tariffs, together with increased volumes due to additional demand over hot weather period, marginally offset with lower CRC costs due to lower gross carbon emissions.
					The increase has also been offset by the power for assets now classified as water resources where raw water is transported between water resources assets.
					Minimal net favourable variance arising from transfer of assets between Severn Trent Water and Hafren Dyfrdwy.
Other operating expenditure - excluding renewals	(5.0)	(6.6)	1.6	23.8%	Increased gross employee costs due to annual pay award and increased in-house labour. Lower levels of own work capitalised due to reduced programme of works compared to the prior year. Increased operating costs due to hot weather incident activities over the summer and operational recovery activities in the second half of the year. Lower G&S allocations due to increased in-house labour in other business units
Local authority and cumulo rates	(2.7)	(1.5)	(1.2)	-78.1%	Underlying increase in total rates relating to CPI uplift and transfers of assets between Severn Trent Water and Hafren Dyfrdwy which have then been allocated based on revised GMEAV of assets.
Water Treatment					
Power	(4.6)	(4.4)	(0.2)	-5.4%	Underlying increase in power costs predominantly due to increased tariffs, together with increased volumes due to additional demand over hot weather period, marginally offset with lower CRC costs due to lower gross carbon emissions.

Abstraction charges/ discharge consents	(0.4)	0.0	(0.4)	100.0%	Increased Canal & River Trust service charges. These costs were previously recorded in Water Resources.
Other operating expenditure - excluding renewals	(42.4)	(49.0)	6.6	13.5%	Increased gross employee costs due to annual pay award and increased in-house labour, offset with higher levels of own work capitalised due to increased programme of works compared to the prior year. Increased operating costs due to hot weather incident activities over the summer and operational recovery activities in the second half of the year.
Local authority and cumulo rates	(6.2)	(15.7)	9.5	60.5%	Underlying increase in total rates relating to CPI uplift, the remaining variance relates to transfers of assets between Severn Trent Water and Hafren Dyfrdwy which have then been allocated based on revised GMEAV of assets.
Treated Water Distribution					
Power	(32.1)	(31.3)	(0.8)	-2.6%	Underlying increase in power costs predominantly due to increased tariffs, together with increased volumes due to additional demand over hot weather period, marginally offset with lower CRC costs due to lower gross carbon emissions. Minimal net favourable variance arising from transfer of assets between Severn Trent Water and Hafren Dyfrdwy.
Other operating expenditure - renewals expensed in year (infrastructure)	(101.7)	(81.9)	(19.8)	-24.1%	Increased year on year volume of mains renewal activity.
Other operating expenditure - excluding renewals	(94.4)	(89.3)	(5.1)	-5.8%	Increased gross employee costs due to annual pay award and increased in-house labour, offset with higher levels of own work capitalised due to increased programme of works compared to the prior year. Increased operating costs due to hot weather incident activities over the summer and operational recovery activities in the second half of the year.

Local authority and cumulo rates	(37.5)	(30.0)	(7.5)	-25.0%	Underlying increase in total rates relating to CPI uplift, the remaining variance relates to transfers of assets between Severn Trent Water and Hafren Dyfrdwy which have then been allocated based on revised GMEAV of assets.

#### **Opex atypical expenditure**

On 25 October 2018 the High Court issued a judgment in the Lloyds Bank case in relation to gender equality in Guaranteed Mini mum Pension rights that has an impact on the Group's defined benefit pension liabilities. We have obtained independent advice from the Group's actuaries to determine the amount of the additional liability and have made provision for our best estimate in this year's financial statements.

This has been allocated to water, waste water and retail pro-rated on FTE. The charge allocated to water of £3.5m has been allocated to water resources (£0.6m), raw water distribution (£0.1m), water treatment (£1.2m) and treated water distribution (£1.6m).

In the prior year, an exceptional gain of £8.3 million arose from the net benefit, after implementation costs, of a Pension Increase Exchange arrangement, under which members of the defined benefit schemes will be offered the opportunity at retirement to exchange future non-statutory inflationary increases in a portion of their pensions earned prior to 1997 for a higher pension payment now.

This was allocated to water, waste water and retail pro-rated on FTE. The gain allocated to Water of £3.4m was allocated to water resources (£0.4m), raw water distribution (£0.1m), water treatment (£1.4m) and treated water distribution (£1.5m).

#### Capex analysis

Overall the Water Capex net investment in 2018/19 was £411.3m (excluding atypicals). This is £113.6m (38.1%) higher than the full year investment in 2017/18 and is in line with our delivery programme which reflects investment to support delivery of our performance commitments and statutory requirements.

Business unit	Current year figures (£m)	Prior year figures (£m)	Variance (£m)	Variance (%)	Commentary
Water Resources	33.3	39.1	(5.8)	-14.8%	Prior year spend was driven by delivery stage of the Birmingham Resilience project
Raw Water	22.1	42.1	(20.0)	-47.6%	Prior year spend was driven by delivery stage of the Birmingham
Distribution					Resilience project
Water Treatment	170.8	106.0	64.8	61.2%	The variance reflects the increased spend on the Birmingham
					Resilience project in line with the capital plan
Treated Water	185.1	110.5	74.6	67.5%	Increased spend on other resilience projects and capital maintenance
Distribution					programme
Total	411.3	297.7	113.6	38.1%	

#### Capex atypical expenditure

Following the England and Wales boundary alignment on 1 July 2018, water assets with a net book value of £31.142m (in the Chester area) were transferred from Hafren Dyfrdwy Cyfyngedig to Severn Trent Water Limited during the year.

#### Wholesale Waste Water

#### **Opex** analysis

Operating expenditure	Current year figures (£m)	Prior year figures (£m)	Variance (£m)	Variance (%)	Commentary
Sewage Collection					
Power	(8.5)	(7.6)	(0.9)	-12.1%	Increased tariffs marginally offset with lower CRC costs due to lower gross carbon emissions. Lower consumption due to transfer of assets to Hafren Dyfrdwy.
Discharge consents	(5.6)	(4.1)	(1.5)	-35.7%	An EA strategic review of charges (SROC) has increased discharge consents in the current year primarily in relation to storm and emergency overflows.
Other operating expenditure - renewals expensed in year (infrastructure)	(32.7)	(48.6)	15.9	32.7%	Earlier delivery of the programme at the beginning of the AMP.
Sewage Treatment					
Power	(36.8)	(33.6)	(3.2)	-9.4%	Increased tariffs marginally offset with lower CRC costs due to lower gross carbon emissions. Lower consumption due to transfer of assets to Hafren Dyfrdwy.
Other operating expenditure - excluding renewals	(80.7)	(71.8)	(8.9)	-12.4%	Increased gross employee costs due to annual pay award and increased in-house labour, offset with higher levels of own work capitalised due to increased programme of works compared to the prior year.
Local authority rates and cumulo rates	(19.8)	(23.1)	3.3	14.3%	Favourable underlying variance due to rebates received in the year. A marginal variance has also arisen from the transfers of assets between Severn Trent Water and Hafren Dyfrdwy which have then been allocated based on revised GMEAV of assets.
Sludge					
Power	11.5	10.7	0.8	-7.7%	Higher costs due to increased tariffs and higher consumption whilst installing thermal hydrolysis plants (THP). Reduced generation due to reduced levels of trade waste and glycerol content.

Income treated as	20.5	18.7	1.8	-9.4%	Increased ROCs, biomethane RHI and sludge sales offset with
negative expenditure					reduced external power sales.
Other operating expenditure	(49.5)	(45.3)	(4.2)	-9.3%	Increase in H&C spend in the year as a result of incident costs incurred and increased chemical spend due to increased liming in the year.
Local authority rates and cumulo rates	(4.4)	(5.0)	0.6	11.8%	Favourable underlying variance due to rebates received in the year.

#### Opex atypical expenditure

The Waste share of the exceptional cost in relation to gender equality in Guaranteed Minimum Pension rights of £3.5m has been allocated to sewage collection (£0.6m), sewage treatment (£2.1m), and sludge (£0.9m).

In the prior year the Pension Increase Exchange exceptional gain allocated to waste water of £2.6m was allocated to sewage collection (£0.7m), sewage treatment (£1.4m), and sludge (£0.5m).

#### Capex analysis

Overall the waste water Capex net investment in 2018/19 was £329.1m. This is £51.4m (49.3%) higher than the full year investment in 2017/18 and is in line with our delivery programme which reflects investment to support delivery of our performance commitments and statutory requirements.

Business unit	Current year figures (£m)	Prior year figures (£m)	Variance (£m)	Variance (%)	Commentary
Sewage Collection	93.2	79.1	14.1	17.8%	Increased activity on s101a First time sewerage connections and new development and growth.
Sewage Treatment	174.8	142.4	32.4	22.8%	On-going delivery of the water framework directive programme.
Sludge	61.1	56.2	4.9	8.8%	The variance reflects the delivery stage of the bio- resources capital programme.
Total	329.1	277.7	51.4	49.3%	

## 8. Retail variance analysis to the prior year

Retail household total operating cost £99.4m is £5.4m (5.7%) higher than the prior year. An analysis of significant variances compared to the prior year is outlined below:

Business unit	Current year figures (£m)	Prior year figures (£m)	Variance (£m)	Variance (%)	Commentary
Customer services	(34.3)	(32.1)	(2.2)	-6.7%	Adverse variance of £2.6m due a reclassification of Inbound & Outbound Contacts (IOC) call centre costs from debt management offset with reduction in call volumes driving a decrease in spend in this area.
Debt management	(5.7)	(12.0)	6.3	52.3%	Favourable variance of £3m due to reclassification of court costs in 17/18, with a further £2.6m favourable variance arising from Inbound & Outbound Contacts (IOC) call centre costs reclassification to Customer Services following detailed call volume analysis exercise.
Doubtful debts	(24.3)	(25.0)	0.7	2.9%	Movement from 2.16% to 2.00% (post inflation).
Other operating expenditure	(21.3)	(17.1)	(4.2)	-24.8%	Primarily due to increase in customer side leaks activity.
Depreciation & amortisation total	(7.5)	(5.0)	(2.5)	-49.4%	Increase due to investment in Technology to enable improved customer service and support our channel shift strategy.
Atypical expenditure	(1.5)	1.8	(3.3)	185.1%	Current year charge arising from the retail share of the exceptional cost in relation to gender equality in Guaranteed Minimum Pension rights. Prior year gain arising from the retail share of the Pension Increase Exchange exceptional gain.

Retail household

Retail non-household total operating cost of £3.1m is £2.1m (40%) lower than in the prior year primarily driven by bad debt expense incurred in the previous year not incurred in the current year.

## 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:

Price control	Business unit
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	Expense type	Price control	Business unit allocation
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.

#### Operating Expenditure - water and waste water

	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.
Bulksupply	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	Infrastructurerenewals	Water and waste	Refer to Capital
the year (infrastructure)	expenditure	water	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> <li>Employment costs</li> <li>Hired and contracted services</li> <li>Materials and consumables</li> <li>Other costs – utility costs, insurances, bad debt costs, OFWAT fees, fines, subscriptions, postage &amp; printing, defined benefit administration fee, audit fees and recharges to/from other group companies</li> </ul>	Allocated to water and waste water directly based on activity or by the use of appropriate cost drivers	Directly allocated to business units by the use of cost centres which are assigned to business units. Where other costs relate to more than one business unit they are allocated between the business units by: • 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
	Firehydrants		Treated water distribution
	Bulk water supplied		Water resources (non- potable) and Water network + (potable) calculated in line with

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

Regulatory driver	Table line	Infrastructure/non-infrastructure allocation
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:

Capex spend	Price control/business unit allocation
IT projects – retail IT spend	Allocated entirely to retail.
IT projects – wholesale IT spend	Based on management estimate.
Transport projects	Based on the portion of transport recharges in the year to each price
	control/business unit.
Property projects	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

Pension deficit recovery payments	Pro-rate cost against the number of	Direct net employment costs
	employees in each price control	at business unit level.
	who are members of the scheme.	

#### 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

Business Area	Team(s) / activity	Retail activity types	Cost allocation/driver
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).

Business Area	Team(s) / activity	Retail activity types	Cost allocation/driver
Customer Strategy	The bad debt expense is also recorded in this area and directly allocated to doubtful debts. 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	An apportionment of the costs of the management team based on the consolidated total cost allocations of the other Customer cost centres.	Doubtful debt provision - 100% to doubtful debts. Annual contribution to the Severn Trent Trust Fund - directly allocated to the Charitable Trust Donations retail activity within Customer Services. 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 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. 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.
Group Transformation	These cost centres deliver process improvements and produce management information for the Customer management team.	Cost is apportioned between the relevant retail activity incurring the cost or to wholesale price controls if wholesale related.	Retail activity allocations of the cost centres which the management team support.

Business Area	Team(s) / activity	Retail activity types	Cost allocation/driver
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 spilt across the business units.	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. 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. 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. There is a Complaints team responsible for management and resolution of account queries and complaints.
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.

Business Area	Team(s) / activity	Retail activity types	Cost allocation/driver
Metering	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.

#### 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 reclassed 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

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

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

#### 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.

#### 21 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 re-inforcement 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 re-inforcement 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 re-inforcement off-site Capex local reinforcements, hydraulic capacity (undersized assets) and strategic growth re-inforcements
  - 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 noninfrastructure. 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 re-inforcement 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**

Business Unit / Upstream service	Cost type	Upstream allocation
Water resources	Abstraction charges	100% Abstraction licences
(abstraction licences, raw water abstraction)	All other costs	100% Raw water abstraction
Raw water distribution	Power	100% Raw water transport.
(raw water transport, raw water storage)		
		Raw water storage uses
		negligiblepower
	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
Water treatment		No disaggregation of water
		treatment to upstream
		services is required
Treated water distribution		No disaggregation of water
		treatment to upstream
		services is required

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

#### Licenced volume available

The total volumes available from Severn Trent licenced abstractions are recorded centrally in mega litres (MI) 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 recorded daily 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
Sewage collection (Foul, surface water drainage, highway drainage)	All cost types	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.
		Definitions of each category are as follows:
		Foul water is Dry Weather Flow (DWF) with trade effluent at Sewage Treatment Works (STW);
		Surface drainage are surfaces types associated with residential and commercial premises that drain to our systems, e.g. Paved (Non Road), Domestic Drives & Patios;
		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.
Sewage treatment (Sewage treatment and imported sludge liquor treatment)	All cost types	Imported sludge liquor treatment allocation - pro- rated on the proportion of sewage treatment load represented by liquor treatment activity.
Sludge (Sludge transport, sludge treatment, sludge disposal)	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 as suming 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 2018 19 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.

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

#### Allocation of general and support expenditure between business areas.

		Procurement team so are allocated on the same basis.
Directors	Manpower – Timesheets Non-manpower – Transactional Analysis (Management Information)	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).
General Counsel	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.
Human Resources	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.
Strategy & Regulation – Regulation	Manpower - A summary of costs are downloaded from SAP and split between manpower costs (1/9 <sup>th</sup> retail & 8/9 <sup>th</sup> water & waste water allocation); and	Manpower costs are allocated on the basis of 1/9 <sup>th</sup> to retail and remaining 8/9 <sup>th</sup> 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 <sup>th</sup> retail and 8/9 <sup>th</sup> water and waste water. Water and waste water are allocated equally to avoid bias between price controls.
Strategy & Regulation – Strategy	Manpower - A summary of costs are downloaded from SAP and split between manpower costs (1/9 <sup>th</sup> retail & 8/9 <sup>th</sup> 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 <sup>th</sup> retail and 8/9 <sup>th</sup> water and waste water. Water and waste water are allocated equally to avoid bias between price controls.
Strategy & Regulation – Communications	Price control FTE (including third party contractors).	Manpower costs are allocated on a basis of FTE (including third party contractors) between water, waste water and retail.
		A transactional review of non-manpower is carried out on the transactions for items that relate specifically to water, waste water and retail; the

	Non-manpower – Transactional Analysis (Management Information)	remaining costs are allocated to price controls based on company FTE.
Finance, Assurance & Business Intelligence	Price control FTE (including third party contractors).	The costs are allocated on a basis of FTE between water, waste water and retail.
Insurance	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.
Miscellaneous Reporting	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	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. The material items are listed below:
		LTIP costs are allocated on the same basis as Directors;
		DB pension admin costs/SAYE costs are allocated on the basis of FTE (excluding third party contractors).
Technology	Wholesale and retail FTE (including third party contractors).	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.
		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.
		Wholesale is further allocated between water and waste water based on wholesale headcount.
		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.
Property – Facility Managed (FM) sites	Occupation of FM sites is based on HR site occupation split by the Price Control business unit they	SAP HR report with employee location and cost centre coding provides the data source.
	work in or are allocated to.	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.

Property – Wholesale Operational sites & Compliance	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.
Property – Portfolio Management	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
Property Visitor Experience Team (VET) sites	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.
Property Services Manager	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.
Property – Disaster Recovery	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.
Property - Facility Management (FM) Sites & Regional Ops Manpower	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:

Support area	Water resources	Water network +	Waste network +	Sludge	Retail household	Total appointed
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
Strategic Asset Planning	Promote projects in line with the Control Framework and business requirements, including a financial review with Finance & Performance teams.
Project Manager	Submit a business case template (project/ application) outlining the operating and capital expenditure.
Programme Board	Review and approve projects.
Investment Governance	Scrutinise project applications and assess whether operating costs and capital
Analyst	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.
Group Finance	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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