

## **Severn Trent Water Accounting Separation Methodology Statement**

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## Introduction

The purpose of this statement is to explain the systems, processes and allocation methods used to populate the Annual Performance Report tables that require the allocation of costs between price controls, upstream services or customer types.

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

Severn Trent Water is structured as follows:

- Wholesale (which includes water and waste water, excluding regulated energy)
- #Customer (retail household and information services)
- Business Services (which includes retail non-household and regulated energy)
- Central functions (e.g. human resources)

Information used to populate the tables originates from our SAP system, which was implemented during 2010. We believe that the allocations made within the accounting separation models are reasonable on the basis that:

- a. They are consistent with our stated methodology which was constructed based on a detailed review of the business; and
- b. The outputs are reviewed by our Performance Analysts, Planning and Performance Strategic Leaders for Wholesale, #Customer and Business Services, who bring a comprehensive view of their respective business areas.

### 2. Population of lines within the accounting separation tables

For the Annual Performance Report sections 2 and 4, we detail the methodology employed to populate the accounting separation tables and the cost allocation principles.

Specifically, we provide details of the following (for lines that require a direct input):

- An explanation of how the data from the systems is processed to populate each line and any additional analysis or adjustments needed.
- An explanation of any assumptions made in the methodology, the basis of these assumptions and how we are satisfied that the basis is reasonable.
- An explanation of the allocation basis used for each line of the table, why these allocation bases are considered appropriate and how we are satisfied that they are reasonable.

- An explanation of any sampling used to populate the tables, justification for using sampling, the methodology applied and how we have ensured the results are reliable.

### **3. Internal governance and consistency procedures**

The activity costing analysis tables are prepared by the Lead Accountant within the Management Accounting team for each of the relevant services with assistance from the Lead Analyst. A review is performed against expectations (using underlying management accounts) and against prior year.

At the time of the exercise, regular update meetings are held between the analysts responsible for populating the accounting separation tables for the respective business areas. Controls within the Accounting Separation spreadsheet model are used to ensure that costs are not double-counted between business areas, and that the totals reconcile to total operating expenditure in the Regulatory Accounts. The spreadsheet takes initial operating expenditure figures from SAP and performs direct allocations into business areas before further allocation by cost drivers is performed.

Changes to methodology compared to the prior year are agreed by each business area and are outlined in section 4 of the methodology statement.

A 'top-down' review of the final accounting separation tables is performed by the Wholesale and Retail Planning and Performance Strategic Leaders who bring a comprehensive view of their respective business areas.

The analysis of fixed assets tables are prepared by the Fixed Assets Lead Accountant and reviewed by the Capital Accounting Manager and the Head of Finance Service Centre. A reconciliation is performed between the additions in the regulatory accounts and the statutory accounts.

The methodology statement is reviewed by the Management Accounting Manager, the Capital Accounting Manager, Wholesale and Retail Performance Controllers, the Regulatory Accounting and Reporting Manager, and the Group Financial Controller on an annual basis.

## **4. Systems in place and sources of information used to populate tables**

### **Recharges to 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.

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

### **Accounting Separation process**

An excel model is used to populate the operating expenditure section of Wholesale totex analysis and Retail operating cost analysis (Tables 2B, 2C, 4D, 4E and 4F).

#### Items calculated outside the model

Specific items in the above tables are calculated outside of the model and entered in to the final table.

The capital expenditure section of the Wholesale totex analysis is completed using a combination of excel spreadsheets and SAP (general ledger accounting system) data.

Cash expenditure information is retrieved from the cash flow statement and allocated to price controls using cost driver information identified in the operating expenditure section.

Volume information is retrieved from management information held in source systems or management estimates.

## **Operating expenditure**

### Opex data

The model is populated by running an initial download of all Severn Trent Water company cost centres using a SAP Business Warehouse report which reports costs net of amounts which have been capitalised against projects. The costs of each cost centre are grouped by expense type e.g. costs of employment, chemical costs etc.

Adjustments are made to the total costs from the SAP report to account for items which are not captured in the report. For example, items recorded as revenue (energy generation income) in the operational management accounts and exceptional items not included in the SAP report. Where late adjustments are made in the consolidation system following the closing of the period in SAP at the year end, these are also reflected in the model.

### Non-appointed and third party costs

Non-appointed and third party costs which are recorded within the price controls are identified by analysis of management information or management estimate, referring to guidance in the income categorisation table in RAG 4 to ensure completeness. The direct costs associated with these activities are then uplifted for an element of support costs (if excluded from the initial calculations) and an element of general and support expenditure. In addition, a use of asset recharge from the appointed business to the non-appointed business is made to reflect the use of appointed assets in the non-appointed operations. A financing charge is also applied to cover the cost of capital. The transfers to non-appointed and third party costs are made before further price control allocations are applied.

### Price control and business unit/activity assignment

The following classifications are applied to each cost centre:

- Direct cost centres assigned to each price control
- Wholesale water and waste water cost centres requiring allocation between price controls
- Retail household and non-household cost centres requiring allocation between price controls
- General and support cost centres assigned to each support function

The wholesale direct cost centres are given a further classification which identifies the relevant accounting separation between water or waste water business units.

The business units are outlined below:

Water	Business unit	Wastewater	Business unit
Water resources	Water resources	Wastewater network +	Sewage collection
Water network +	Raw water distribution	Wastewater network +	Sewage treatment
Water network +	Water treatment	Sludge	Sludge collection
Water network +	Treated water distribution	Sludge	Sludge treatment
		Sludge	Sludge disposal

Where a specific business unit is not identified i.e. the costs apply to multiple business units, these are assigned as water or waste water shared cost centres. These are allocated to a business unit by using either an appropriate cost driver or by pro-rating against direct business unit costs (for specific expenditure lines) before general and support expenditure allocations.

The retail cost centres are given a further classification into one or more service units (e.g. billing, payment handling etc.) using an appropriate cost driver.

The assignment of all cost centres to the above categories is determined by the Wholesale and Retail Planning and Performance Analysts. Training and guidance in relation to the latest RAGs is given by the regulatory teams to the analysts to aid with this assignment.

#### Cost driver assignment

A cost driver is applied to all cost centres which have been identified as wholesale, retail or general and support shared cost centres, to allocate the costs between price controls. The cost driver is determined by the Planning and Performance analysts who will determine the most appropriate cost driver by reference to the training they have received from the regulatory teams.

Costs will be allocated to price controls and business units by the following approach; direct where appropriate, identifying specific cost drivers by retrieving the relevant management information to calculate this, or management estimate where management information is not available. Costs are pro-rated on the direct costs of specific expenditure lines or on a FTE basis where an appropriate driver of costs has not been identified (refer to section 10 General and support allocation methodology for FTE allocation process).

A process documentation template (PDT) is completed for each cost driver. This includes information on the business area responsible for the cost driver, the cost centres the cost driver will be assigned to, a description of the activities undertaken and costs incurred within the cost centre (including whether any of the activity relates to non-appointed). The PDT also includes the price control, business unit/activity assignment, confirmation of whether the RAGs provide guidance on the cost allocation methodology and reason for the departure from

the methodology, if applicable. Appropriateness of the cost driver for allocation purposes in absence of specific RAG guidance referring to the RAG principles is also included. The process for calculating the cost driver is documented in the PDT. The year end calculation is performed by the responsible business area or the Management Accounting team and updated in the model by the Management Accounting team.

The final output is reviewed and confirmed as being accurate by the Planning and Performance teams within the relevant business areas.

#### Upstream services allocations

Allocation to upstream services follows a similar approach to price control and business unit allocation. Costs will be directly allocated where appropriate or assigned to specific cost drivers by the use of management information or management estimate where management information is not available. The allocation principles are set by the Planning and Performance teams and calculated by the Management Accounting team, with a review process carried out by the Planning and Performance teams.

#### Reconciliation

A reconciliation is performed within the model which checks 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. Severn Trent Water accounting policy is to expense infrastructure renewals expenditure (IRE) to the Income Statement. The IRE programme is managed by the Wholesale Capital team and IRE allocation to price controls, business unit and upstream services is calculated in line with the methodology outlined below in the Capital expenditure section and transferred to the Operating expenditure section of the table once this is completed.

#### Review process

The final accounting separation tables are reviewed by the Management Accounting manager, the Capital Accounting manager, the Financial Service Centre strategic leader and by the Wholesale and Retail business performance controllers and strategic leaders. The Strategy and Regulation team will also review the tables for a further level of assurance.

### **Fixed assets & Capital expenditure**

#### Fixed assets

The analysis of fixed assets consist of the assets capitalised to the SAP fixed asset register plus work in progress. The opening balances and current year transactions are analysed to price controls and business units using the following approach:

### Fixed asset register

- Assets in the SAP asset register are allocated to cost centres which identify the operational business owner. Each asset also has an asset class which identifies the split between infrastructure, operational and other assets. This data is held as part of individual asset records on the SAP asset register.
- Each cost centre is assigned to the same price control / business unit utilised in the operating expenditure allocation.
- A review is undertaken of categorisations of assets to business units to ensure they have been entered on to the register correctly. This targets areas where assets are more likely to require reclassifying. We identify any assets requiring reassigning based on specific asset detail in the asset register.
- Management and general assets have been assigned to business units based on principal user rules. Each allocation is at cost centre level to provide the most appropriate assignment to price control.
- The assignments above are used to analyse the depreciation charge and asset disposals by business unit and asset type.
- A current cost accounting fixed assets register is maintained, in addition to the IFRS asset register. The additions and disposals impacting this register should mirror the IFRS register, unless an asset being disposed is not identifiable in this ledger in which case the net book value is estimated. This register is inflated by RPI annually and is subject to a periodic Modern Equivalent Asset Value (MEAV) revaluation exercise.

### Project expenditure and income

A SAP business warehouse report produces a detailed view of infrastructure renewals expenditure and capital expenditure and income by business plan line. This is used as the basis of allocating expenditure across the capital expenditure lines, price controls, business units and upstream services. Refer to the methodology outlined in table 4D for further detail.



## 5. Cost allocation principles and changes in allocation methodology

### Cost allocation principles

Our approach to accounting separation applies the general principles set out in RAG 2 wherever possible. Ofwat has set out the following general principles, which accounting separation systems are required to comply with.

- **Transparency:** the attribution methods applied within the accounting separation system need to be transparent. This requires that the costs and revenues apportioned to each service and business unit should be clearly identifiable. The cost and revenue drivers used within the system should also be clearly explained to enable a review of their appropriateness.

Our methodology statement and accounting separation models provide transparency. Costs apportioned to each business unit are identifiable and can be traced back to our SAP ledger.

- **Causality:** cost causality requires that costs (and revenues) are allocated to those activities and services that cause the cost (or revenue) to be incurred. This requires that the attribution of costs and revenues to activities and services should be performed at as granular a level as possible.

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 of costs and revenues should not favour any business unit within the regulated company and it should be possible to demonstrate that internal transfer charges are consistent with the prices charged to external third parties.

Cost allocations bases are as objective as possible and are not designed to favour any business unit.

- **Objectivity:** the cost and revenue attribution criteria need to be objective and should not intend to benefit any business unit or service.

Cost allocations bases are as objective as possible and are not designed to favour any business unit.

- **Consistency:** the cost and revenue attribution criteria should be consistent 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.

- **No cross subsidy between price controls:** Following the introduction of separate binding price controls at the 2014 price review, companies cannot transfer costs between the price control units in setting prices and preparing the APR. The revenue allowance for each price control is determined by the costs specific to that particular price control. Therefore 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. There will also be instances where the transfer price for some internal services and activities should be based on cost, even though a market may exist, for example activities such as treasury, legal or payroll etc. Provided the service or activity is company specific and is being provided internally to all of the price control units, or being provided solely to both the appointed and non-appointed business, then the transfer price 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 others 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.

## Changes in allocation methodology

Changes in cost allocation approach result from either:

- (1) Changes in organisational design leading to direct attribution or increased allocation
- (2) Enhanced management information to enable direct allocation or aid cost allocation
- (3) Changes in RAG guidance or arising from OFWAT reviews in specific areas

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:

- (1) Changes in organisational design leading to direct attribution or increased allocation

### Retail non-household allocations

On 1 June 2016 the disposal of the retail non-household activities to Water Plus (our joint venture with United Utilities) was completed. Recharges to retail non-household from retail household and general and support expenditure allocations therefore only reflect two months of charges to reflect the utilisation of the operational and support functions for the period up to disposal. Specific services have been recharged to Water Plus during the year under the transitional service agreement on an arm's length basis. These are in place until Water Plus are able to procure their own activities.

### Transfer of meter reading activities from wholesale to retail

In the previous year meter reading activities were managed by the wholesale operational structure within Severn Trent Water, costs were transferred to retail as part of the Accounting Separation process. The metering team activities are now managed within retail, with the costs of the Amey Metering Contract (installation, and repairs and maintenance of water meters) being recharged back to wholesale.

- (2) Enhanced management information to enable direct allocation or aid cost allocation

### FTE allocations

We have reviewed each general and support function to determine whether third party contractors are utilising their services. For those identified as being utilised by third party contractors we have updated the FTE allocation methodology to include the FTE equivalent

of the contractors, resulting in the price controls utilising contract resource having a higher allocation of support costs where the third party is utilising the support services.

#### Timesheet allocations

As part of the above review we have also determined the support functions where the manpower cost allocation would be more cost reflective by using management estimate of time incurred against price controls and business units instead of being allocated by FTE. These are predominately where the activities of the support function fluctuate due to the nature of specific projects which can be aligned to price controls and business units. A quarterly return “timesheet” is populated estimating team members’ activity against price control / business units expressed as a percentage by reference to the specific projects and activities time has been spent on. Training and guidance in relation to the latest RAGs is given by the regulatory teams to the business area owners to aid with this assignment.

#### Transactional analysis

The non-manpower costs of the above support functions are assigned to price control and business units based on a transactional review of the costs as these will also vary in nature due to the specific project activities taking place. Where property general and support costs are operational site specific, these have been assigned to price control and business units by undertaking a transactional review of the non-manpower costs.

The allocation methodology of each general and support function can be found in section 10 of this report.

#### Non-appointed costs

A full review of all non-appointed costs has been completed during the year to validate completeness of direct costs and related general and support expenditure. In addition, a use of asset recharge from the appointed business to the non-appointed business has been made to reflect the use of appointed assets in the non-appointed operations. A financing charge has also been applied to cover the cost of capital.

## 6. Wholesale variance analysis to the prior year

### WHOLESALE WATER

#### OPEX analysis

Wholesale water total operating costs including IRE and third party costs of £353.6m are £3.8m (1.1%) higher than the prior year. An analysis of significant variances compared to the prior year is outlined below:

#### Water Resources

Power **£9.1m 2016/17** (£9.6m 2015/16) **-5.2%**

Power costs are lower year on year. We have implemented a number of initiatives that successfully reduced consumption, despite higher water production driven by customer demand. The group manages its power costs through a combination of demand management, self-generation, and forward price contracts.

Abstraction charges **£11.4m 2016/17** (£6.5m 2015/16) **+75.4%**

Abstraction charges have risen by £4.9m; primarily relating to the one-off rebate associated with the EIUC fund in 2015/16 of £4.4m, the remainder is due to higher water production.

Bulk Supply **£8.0m 2016/17** (£7.6m 2015/16) **+5.3%**

Higher water production has led to increased bulk water supply.

Other operating expenditure (excluding IRE) **£14.4m 2016/17** (£16.7m 2015/16) **-13.8%**

Lower operating expenditure relating to one-off expenditure which involved setting up of contracts and the design phase of the efficiency programme incurred in the prior year.

An exceptional gain in relation to a Pension Increase Exchange arrangement has arisen under which pensioners of the defined benefit schemes were offered the opportunity to exchange future non-statutory inflationary increases in a portion of their pensions earned prior to 1997 for a higher pension payment now. The allocation of the resulting gain to Water resources is £0.8m. Whilst the totex table includes the gain for all business units, this is adjusted out in the reconciliation to the FD so that the impact of the gain is excluded.

## Raw Water Distribution

Power **£2.4m 2016/17** (£2.6m 2015/16) **-7.7%**

Power costs were lower year on year. Whilst there has been higher water production driven by customer demand, we implemented a number of initiatives which successfully reduced consumption.

Other operating expenditure (excluding IRE) **£6.0m 2016/17** (£2.5m 2015/16) **+140.0%**

Net labour costs were lower year on year. Gross employee costs increased compared to prior year in part as a result of our strategy to bring more work in-house, this has been more than offset by increased activity on capital projects, and by £0.2m of the raw water distribution share of the pension gain.

Infrastructure renewals expenditure (IRE) **£1.6m 2016/17** (£0.4m 2015/16) **+300.0%**

IRE is broadly in line with prior year expenditure reflecting the base expenditure incurred in order to maintain our below ground infrastructure network.

## Water Treatment

Power **£25.3m 2016/17** (£27.4m 2015/16) **-7.7%**

We implemented a number of initiatives that successfully reduced consumption.

Other operating expenditure (excluding IRE) **£53.5m 2016/17** (£53.1m 2015/16) **+0.8%**

Employee costs increased compared to prior year in part as a result of our strategy to bring more work in-house.

Net hired and contracted costs decreased compared to 2015/16. As well as driving supply chain efficiencies, we have been building our in-house skills and expertise to reduce our use of external consultants.

A further decrease of £2.3m relates to water treatment share of the pension gain.

## Treated Water Distribution

**Power** **£9.9m 2016/17** (£8.3m 2015/16) **+19.3%**

Increase is mainly due to increased price and higher water production driven by customer demand.

**Other operating expenditure** **£72.9m 2016/17** (£82.8m 2015/16) **-12.0%**

Lower operating expenditure relating to one-off expenditure which involved setting up of contracts and the design phase of the efficiency programme incurred in the prior year.

Net labour costs were lower year on year. Gross employee costs increased compared to prior year in part as a result of our strategy to bring more work in-house, this has been more than offset by increased activity on capital projects. A further £2.5m favourable variance is attributed to the share of the pension gain.

**Infrastructure renewals expenditure (IRE)** **£83.6m 2016/17** (£77.8m 2015/16) **+7.5%**

IRE is broadly in line with prior year expenditure reflecting the base expenditure incurred in order to maintain our below ground infrastructure network.

## CAPEX analysis

Overall the Water CAPEX investment in 2016/17 was £227.9m. This is £20.4m (9.8%) higher than the full year investment in 2015/16 and is in line with our delivery programme which reflects investment to support delivery of our performance commitments and statutory requirements. Further details can be found in Section 3 of the Annual Performance Report.

**Water Resources** **£15.7m 2016/17** (£12.8m 2015/16) **+22.7%**

Increase in investment is mainly driven by a planned increase in our borehole maintenance programme, where we invested £5.5m in 2016/17 compared with £3.1m in 2015/16.

**Raw Water Distribution** **£33.9m 2016/17** (£12.8m 2015/16) **+164.8%**

The increase is mainly attributable to investment associated with delivery of the Birmingham Resilience programme, where we remain on track to deliver in line with the timescales set out in the PR14 Final Determination.

**Water Treatment** **£72.5m 2016/17** (£100.5m 2015/16) **-27.9%**

A review of the business plan line allocation to business unit in 2016/17 led to a reallocation of expenditure between business units. This resulted in a reduction in reported expenditure of £47.5m in the year.

On the reallocated basis there is an increase of reflect our approach to accelerate investment to address drinking water quality.

**Treated Water Distribution** **£105.8m 2016/17** (£81.4m 2015/16) **+30.0%**

See above for review of allocation basis. This has resulted in an increase in reported expenditure of £20.5m.

On a reallocated basis there is a decrease in investment predominantly driven by completion of Phase one of the Ambergate Reservoir.

## **WHOLESALE WASTE WATER**

### **OPEX analysis**

Wholesale Waste water total operating costs including IRE and third party costs of £263.4m are £7.2m (2.7%) lower than the prior year. An analysis of significant variances compared to the prior year is outlined below:

#### **Sewage Collection**

Power **£13.3m 2016/17** (£8.0m 2015/16) **+66.3%**

Increase is mainly due to increased price and higher water production driven by customer demand which will mean more sewage being collected.

Discharge consents **£4.0m 2016/17** (£1.7m 2015/16) **+135.3%**

Primarily driven by discharge consents relating to sewerage networks incorrectly allocated to Sewage Treatment in the prior year. The adverse variance is offset with a favourable variance in Sewage Treatment.





**Sludge**

**Power** **-£12.0m 2016/17** (-£11.1m 2015/16) **+8.1%**

Power costs were higher year on year driven by customer demand, however we generated more renewable energy from our Sludge treatment sites.

**Income treated as negative expenditure** **-£17.6m 2016/17** (-£16.1m 2015/16) **+9.3%**

Increased income due to increased self-generation, bio-gas generation and increased sludge sales.

**Other operating expenditure** **£49.1m 2016/17** (£54.7m 2015/16) **-10.2%**

Delivering efficiencies on net labour costs and hired and contracted costs, which have decreased year on year. A further £2.6m favourable variance is attributed to the share of the pension gain.

**CAPEX analysis**

Overall the Waste CAPEX investment in 2016/17 was £215.5m. This is £26.5m (14.0%) higher than the full year investment in 2015/16 and is in line with our delivery programme which reflects investment to support delivery of our performance commitments and statutory requirements. Further details can be found in Section 3 of the Annual Performance Report.

**Sewage Collection** **£59.1m 2016/17** (£54.1m 2015/16) **+9.2%**

The increase in investment is largely attributable to increased activity on our Newark Sewer Strategy scheme.

**Sewage Treatment** **£111.7m 2016/17** (£102.8m 2015/16) **+8.7%**

Increase is mainly driven by increased investment to maintain sewage treatment works (£6m).

**Sludge** **£44.7m 2016/17** (£32.1m 2015/16) **+39.3%**

Increase is predominantly attributable to investment on Minworth Thermal Hydrolysis scheme. We invested £18.7m in 2016/17 compared with £8.8m in 2015/16.

## 7. Retail variance analysis to the prior year

Retail household total operating costs of £84.6m are £2.3m (2.7%) lower than the prior year. An analysis of significant variances compared to the prior year is outlined below:

### **Retail household**

**Customer services** **£31.0m 2016/17** (£29.7m 2015/16) **+4.4%**

This increase is in part due to additional costs being allocated to Customer services from Debt management due to a refinement in the basis of allocation, together with an increased share of management costs to household post the disposal of the non-household business.

**Debt management** **£7.3m 2016/17** (£7.0m 2015/16) **-4.3%**

The basis of allocation change has led to a reduced amount being recognised in Debt management and to an increase in Customer service costs as above. However, despite this favourable shift, increased costs were incurred to drive bad debt performance together with increased share of management costs following the non-household business disposal.

**Doubtful debts** **£20.6m 2016/17** (£20.1m 2015/16) **+2.5%**

Doubtful debts continue to be 1.8% of revenue and are in line with performance in previous years, and there has been no change in allocation.

**Meter reading** **£5.4m 2016/17** (£4.6m 2015/16) **+17.4%**

The transfer of the operations and management of the metering team from wholesale to retail has resulted in direct attribution instead of allocation of costs compared to the prior year. This has led to increased costs to retail as a result of increased share of management costs which are no longer being shared with wholesale and retail non-household.

**General and support allocations** **£17.5m 2016/17** (£20.2m 2015/16) **-13.4%**

Whilst the disposal of the non-household business has increased the general and support allocations as household now receives a greater share of fixed costs, the changes in allocation methodology outlined in section 5 has reduced the overall charge to retail household.

**Exceptional (gains)/costs** **-£2.6m 2016/17** (£0.0m 2015/16) **N/A**

An exceptional gain in relation to a Pension Increase Exchange arrangement has arisen under which pensioners of the defined benefit schemes were offered the opportunity to exchange future non-statutory inflationary increases in a portion of their pensions earned prior to 1997 for a higher pension payment now. We have adjusted the retail operating costs in the RoRE calculation so that the variance to FD excludes the impact of the gain

## **Retail non-household**

Retail non-household total operating costs of £7.7m are £9.3m (54.4%) lower than the prior year.

On 1 June 2016 we completed the disposal of our retail non-household activities to Water Plus, our joint venture with United Utilities in advance of the opening of the non-household retail market on 1 April 2017.

Whilst specific operational activities have been recharged to Water Plus during the year under the transitional service agreement in place until Water Plus are able to procure their own services, certain activities have remained in Severn Trent Water for the full year.

These activities are performed by wholesale and are recharged to retail under the requirements of RAG 2. These have been recorded in the Severn Trent Water retail non-household price control and have not been subsequently recharged to Water Plus and are outlined below:

*Developer services costs in relation to providing information and administration for new connections.*

*Investigatory visits / first visit to the customer where the cause of investigation is not a network issue.*

*Customer side leaks expenditure (excluding costs to meet wholesale outcomes).*

General and support expenditure in relation to the above activities are also charged to the non-household price control.

The disposal has also increased household costs as noted above, due to management costs previously shared between household and non-household being fully borne by household for 10 months of the year.

## **8. 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.

#### Revenue price control

The price control revenue is retrieved from table 2I Revenue analysis and wholesale control reconciliation. This table analyses revenue between wholesale water and waste water charges and retail revenue by Retail household and Retail non-household. Refer to table 2I for allocation methodology.

#### Revenue non price control

The non price control revenue agrees to the total non price control revenue disclosed in table 2I (Revenue analysis and wholesale control reconciliation). All non price control general ledger income codes are assigned to principal services or third party services using guidance within the RAG 4 income categorisation table. Price control assignment takes place when the transaction is posted in SAP which is posted 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 business warehouse report is run at the end of the year to retrieve the values assigned against each code and reviewed to ensure that the correct price control assignment has been made and adjusted where necessary.

#### Operating costs

Retail household and non-household operating costs including depreciation charges are retrieved from table 2C (Operating costs analysis – retail). Refer to table 2C for allocation methodology.

Wholesale water and waste water operating costs, excluding depreciation and amortisation, infrastructure renewals expenditure and deferred credits are retrieved from table 2B (Totex analysis – wholesale).

Depreciation and amortisation charges are charged to the principal user price control. Infrastructure renewals expenditure is recorded in the appropriate price control by reference

to the underlying assets when the transaction is posted in SAP and reviewed for any adjustments required.

#### Other operating income

Other operating income represents profit/loss on disposal of assets. This is assigned to the appropriate price control by reference to the underlying assets when the transaction is posted in SAP and reviewed for any adjustments required.

#### Recharges to/from other segments

Recharges from and to other segments relate to recharges made for the use of fixed assets. These recharges relate to management and general assets (M&G) utilised by the general and support areas of the business which have been assigned to a principle user. All M&G cost centres are assigned to a cost driver. The cost drivers are primarily determined based on the opex cost drivers, however, where the opex cost driver is not deemed appropriate on a capex basis, a more appropriate cost driver for the capital assets has been determined.

The 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 principle user. The full depreciation cost for these assets is originally assigned to the principle user. The recharge to segments is then calculated using the determined cost drivers.

Retail assets are all held in the retail household cost centre. The recharge to retail non-household for the period before disposal has been determined as follows:

<b>Asset type</b>	<b>Basis of allocation</b>
Billing Equipment	Number of meter reads
Customer relations assets	Average call handling times
General assets	Number of customers
Customer billing system	Number of bills issued

#### Surface water drainage (SWD) rebates

SWD rebate data is generated from two sources. The majority of the adjustment is provided by the Tariff Team. A system report is run which identifies the value and the volume of SWD rebates for the required period. This is added to SWD rebates issued by the Complaints Team. A system report is run on Resolve to confirm the value of SWD rebates that the complaints team have issued during the financial year.

## 2B Totex analysis – wholesale

Table 2B is completed following the update of Table 4D (Wholesale totex analysis – water) and Table 4E (Wholesale totex analysis – waste water) and sums up the relevant business units into the categorisations as below:

Water	Business unit	Wastewater	Business unit
Water resources	Water resources	Wastewater network +	Sewage collection
Water network +	Raw water distribution	Wastewater network +	Sewage treatment
Water network +	Water treatment	Sludge	Sludge collection
Water network +	Treated water distribution	Sludge	Sludge treatment
		Sludge	Sludge disposal

Refer to Section 9 table 4D and table 4E for the line item definition and price control/business unit allocation methodology which also applies to Table 2B.

## 2C Operating cost analysis – retail

The direct costs of the Retail business comprise the following teams which deal with all household and non-household customers.

- Chief Customer Officer
- Planning & Performance
- Credit Management
- Resource Planning
- Business Change/Customer Transformation
- Customer Contact
- Customer Experience
- Metering
- Business Services (non-household)

As the business manages costs using the above structure rather than by discreet retail activities, costs have been allocated over two stages. 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. General and support expenditure is also attributed to the Retail business.

## **Team responsibilities and allocation to activities**

**Chief Customer Officer** – This department comprises the Customer Care Management Team. The cost of the team 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 and non-household price controls. Allocation is based on the business activity allocations of the cost centres which the management team support (excluding specific costs such as bad debts and charitable trust).

**Planning & Performance** - Performance & Planning teams align closely with key business areas to provide support to in terms of performance, both financial and operational. The cost of the team 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 and non-household price controls. Allocation is based on the business activity allocations of the cost centres which the team support (excluding specific costs such as bad debts and charitable trust).

**Credit Management** – This department comprises a number of teams which are predominately focused on debt management. In addition, the department also has some responsibilities for billing, payment handling, vulnerable customer scheme activities and non network customer enquiries and complaints. The costs have been apportioned between activities as follows:

- An apportionment of the costs of the management team based on the consolidated total cost allocations of the other Credit Management cost centres.
- The doubtful debt provision sits within the Head of Credit Management cost centre and is attributed 100% to doubtful debts business activity.
- The annual contribution to the Severn Trent Trust Fund in support of vulnerable customers also sits within the Head of Credit Management cost centre and can be directly allocated to the Charitable Trust Donations business activity.



- The cost of paying third parties to administer our social tariff schemes, the Citizen's Advice Bureau, Auriga (Severn Trent Trust Fund) can be directly allocated to the Vulnerable Customer Schemes business activity.
- The balance remaining in the Head of Credit Management cost centre after removing the above costs, is a management overhead of the credit management function and needs to be allocated across the cost centres within Credit Management based on the value of each of the cost centres.

**Resource planning** - This team 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 teams analyse FTE requirements as well as forecast customer demand across all contact centres.

- 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 Change** – These cost centres deliver process improvements across #Customer and produce management information for the #Customer management team.

- The costs are allocated across activities based on the overall allocations of the other cost centres excluding Chief Customer Officer and Planning & Performance.
- The cost of the team 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 and non-household price controls. Allocation is based on the business activity allocations of the cost centres which the team support (excluding specific costs such as bad debts and charitable trust).

**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, meter reading and non-network enquires and complaints and, network enquires and complaints. The cost centres are allocated as follows:

- 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.
- 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.
- 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.

**Customer Experience** - The Customer Experience team 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. The quality and complaints cost centre is allocated on the basis of complaints volume. Costs and activity volumes within this cost centre is driven by volumes of customer complaints. The cost within the cost centre can be attributed to a business unit based on the nature of complaints received. 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.

- The cost of the team 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 and non-household price controls. Allocation is based on the business activity allocations of the cost centres which the team support (excluding specific costs such as bad debts and charitable trust).

**Metering** – The total costs incurred and recorded within these cost centres can be allocated directly to a business activity within retail household. 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 cost centres are apportioned to Non Network Enquiries & 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.

- Metering Scheduling team plan and schedule of all the Customer Service Resolution Advisors (CSRAs) field work, for the three billing enquiries teams - predominantly people costs. The activity is allocated to Non Network Enquires and Complaints.
- IRM Fropt/IRM Team Manager 2 are back office teams responsible for liaising with the customer re: new meter installation, meter exchanges (replacements) and other meter related data. The activity is allocated to non-network enquiries and complaints.
- There is one cost centre within where the total costs recorded within the cost centre can be allocated directly to treated water distribution. This is the IRM Team Manager cost centre containing the costs of the Amey Metering Contract - Installation, Repairs & Maintenance of water meters.

**Business Services** – This department comprises the Business Services Manager, the Business Direct, the Relationship manager and Credit manager cost centre. The cost centres are allocated as follows:

- The Business Direct cost centre contains the teams responsible for billing and debt collection activity on commercial customers. This cost centre has therefore been apportioned based on a management estimate to billing, debt management, non-network customer enquiries and complaints, and demand side water efficiencies.
- The Business Services management team is pro-rated to retail activities on the basis of the cost centres they manage.
- The Relationship Manager cost centre contains a team responsible for managing relationships with large customers. These costs are allocated based on management estimate.
- The Credit Management team are responsible for collecting non-household debt and are attributed directly to debt management.

## Transfers to/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 allocation to Retail using appropriate cost drivers determined for each support function. Please refer to the section 10 for the General and support allocation methodology.

## Allocation to Household/Non-household

With the exception of the costs of the Business Services team, which directly relates to Retail non-household activity, and External Relationships and Aged Debt Collection teams, which deal only with household debt, the organisational structure is such that processes are not sub divided between household and non-household activities. Therefore, to populate the Retail household and Retail non-household columns, it has been necessary to apportion our total costs based on an appropriate allocation method.

Severn Trent Water disposed of their non-household retail business to Water Plus on 1 June 2016, therefore all allocations from household retail to non-household retail are for the two month period 1 April 2016- 31 May 2016.

**Billing** – Specific adjustments have been made for the costs of our Business Direct team, which directly relate to Retail non-household activity. The remaining balance has been apportioned based on the number of household and non-household bills issued.

**Payment handling** – The cost of this activity is deemed to be driven by the number of payments that are made in the year. The total number of payments and payments transferred in events are recorded on Target where the customer type is recorded as either household or non-household enabling cost allocation on this basis.

**Debt management** – A specific adjustment has been made for the apportioned costs of our Business Direct team, which relate to Retail non-household activity and our Aged Debt Collections team, which deal only with household debt. The remaining balance has been apportioned based on the household and non-household net debtors split.

**Doubtful debts** – The bad debt charge is allocated to household and non-household based on the calculated split of the bad debt charge.

**Charitable trust donations** – Total Charitable trust donations are allocated 100% to household.

**Vulnerable customer schemes** – The costs of administering the Vulnerable Customer Scheme are allocated 100% to household.

**Non-network customer enquiries and complaints** – A direct cost allocation of our Business Direct team has been made to non-household as this is a non-household direct cost only. The remaining costs associated with this activity are apportioned between household and non-household based on the number of household and non-household customer complaints.

**Meter reading** – The costs are allocated between Retail household and Retail non-household based on the number of meter reads and the time taken to complete those reads.

**Meter maintenance / non-installation non-capex** – Meter maintenance costs are pro-rated to household and non-household based on the meter reading costs allocated to them.

**Network customer enquiries and complaints** – The costs associated with this activity are apportioned between household and non-household based on the number of household and non-household customer complaints.

**Disconnections** – Administration activities in relation to disconnections are attributed 100% to Retail non-household

**Demand side water efficiency initiatives** – This activity is allocated on the basis of a detailed costs analysis as to whether they can be attributed to household or non-household initiatives.

**Services to developers** – The costs associated with this activity are attributed 100% to non-household.

**Customer side leaks** – SAP WFM directly codes customer side leaks initial visits and follow on work as retail household or non-household customer jobs, although the costs are captured in Wholesale. The costs are therefore transferred out of Wholesale and are directly charged to retail household and retail non-household.

**Other direct costs** – The costs associated with this activity are apportioned between household and non-household based on the number of household and non-household FTE's.

**Third party services** – As Retail does not incur any third party services costs, a household/non-household apportionment is not required.

**2D Historical cost analysis of fixed assets - wholesale & retail**

For operational tangible fixed assets each specific asset is allocated to a cost centre within the SAP asset register which identifies the operational business owner.

A reconciliation is performed between the net book value of tangible fixed assets in the regulatory accounts and the statutory accounts.

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

<b>Business area</b>	<b>Basis of assignment</b>
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 Manager	Assignment based on wholesale FTE
Visitor sites	Assignment to water
Scientific Services	Assignment based on price control FTE

All retail assets are held in the retail household cost centre and are assigned to retail household using the principal user basis.

Cost

The historical cost value of the tangible fixed assets brought forward from the previous year has been reconciled back to the statutory accounts to support the cost as at 1 April. An analysis of disposals by asset number and cost centre provides the asset disposal value by price control. A spreadsheet is then used to collate the downloaded data at a summary level and include any adjustments and allocations to the correct business unit. Assets are attributed to business units on an individual asset basis or via an allocation rule for specific groups of assets.

The additions line is the capital project expenditure for the year analysed by price control. The capital project expenditure is analysed based on the asset type capitalised. WIP is analysed using purpose codes. At the outset of a project, project managers determine the proportion of total project spend that will relate to each purpose code. These are reviewed and amended as the project progresses by the project managers.

Depreciation

The opening depreciation balance on tangible fixed assets has been reconciled back to the statutory accounts.

An analysis of depreciation by asset number and cost centre provides the depreciation value by price control. A spreadsheet is then used to collate the downloaded data at a summary level and include any adjustments and allocations to the correct business unit.

Assets are attributed to business units on an individual asset or project basis or via an allocation rule for specific groups of assets. This includes the transaction for depreciation disposed from the fixed asset register.

The calculation of the depreciation charge for the year is completed on an individual asset basis in the SAP asset register. A spreadsheet is then used to collate the download data at a summary level and includes any adjustments and allocations to the correct price control.

As reported above assets are attributed to price control on an individual asset or project basis or via an allocation rule for specific groups of assets. This includes the transaction for the depreciation charge to the fixed asset register.

## **2E Analysis of capital contributions and land sales – wholesale**

### **Grants and contributions**

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). All income on projects assigned to the business plan line of new connections has been allocated to connection charges.

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). All income on projects assigned to the business plan line of water or sewerage infra charges has been allocated to infrastructure charge receipts.

Requisitioned mains are contributions received from developers to requisition a new water main or sewer. (Water Industry Act s43, 55, 56 & 100). All income on projects assigned to the business plan line of water or sewerage requisitions has been allocated to requisitioned mains.

Diversions are contributions received from local authorities, highway authorities and private companies to divert water mains or sewers. (Water Industry Act s185). All infrastructure income on projects relating to diversions has been allocated to diversions.



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

The 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**

#### Customer types

The management accounts are prepared on the basis of Target MI allocating customers to either household or non-household based on their service tariff indicator. The revenue for the regulatory accounts needs to be split on a different customer field, i.e. Property Usage Code (PUC). There is a difference between the two coding flags within Target MI.

To prepare the revenue for the regulatory accounts the material items within the management accounts have been analysed to assign revenue using the property usage code. As the data was assigned to household or non-household it was further subdivided by the new customer categories of:

- Unmeasured water only
- Unmeasured waste water only
- Unmeasured water and waste water only
- Measured water only
- Measured waste water only
- Measured water and waste water only

This provides an initial number split by the new customer categories, which is overlaid with further adjustments e.g bulk water adjustments.

Properties categorised as voids (properties which have not received a water or waste water service during the year ending 2016-17) are excluded from the above customer categories, these make up an insignificant proportion of the total balance (less than 0.4%).

#### Wholesale charges/retail revenue

The wholesale/retail split of revenue numbers is driven by wholesale/retail coding of the underlying data in Target MI which in turn makes up the values as per SAP.

#### Customer numbers

Number of households billed is fully provided from STW corporate source systems for all categories with the exception of line 2 (unmeasured waste water only) and line 5 (measured waste water only), which is provided by other water companies (OWCs), who bill on our behalf.

This billable data is requested and collated by STW and is provided directly by the 5 OWCs as part of our annual reporting. The submissions are then added to STW waste water data to provide the current year totals.

The 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**

Wholesale - Reports from Target are extracted to give volumes (property & rateable value) for non-household tariff bandings for the whole year, these volumes are then compiled using the process defined in table 2I.

The Income & Debt Lead Accountant provides a summary of Wholesale Unmeasured and Measured revenue for the period relating to April-May 16. The subsequent 10 months are calculated by Water Plus. The consumption calculated in the Charges Submission 2016/17 is used to derive to the volumes at each tariff banding level for each service level.

For the retail revenue, reports from Target are extracted to give volumes (property & rateable value) for non-household tariff bandings for the period relating to April-May 16. The subsequent 10 months are calculated by Water Plus. The consumption calculated in the Charges Submission 2016/17 is used to derive to the volumes at each tariff banding level for each service level.

The wholesale & retail tariffs are multiplied by each relevant volume to give wholesale & retail revenue at each tariff. The revenue relating to Special Agreements (where a customer does not fall into the normal tariff bandings) is extracted from the Target report & the revenue is split between retail & wholesale by the average split for that service based on charges submission revenue.

The following adjustments are then made to this calculated revenue for each service as appropriate:

- Other Water Company (OWC) Revenue  
STW revenue charged by OWCs on our behalf is apportioned out between the tariff bands based on total revenue calculated by service (as we do not hold up to date account information on these) – the revenue is obtained from the OWCs via the Income & Debt Lead Accountant
- Prior Year Adjustments  
Any revenue recognised in this year that relates to prior years, e.g. over / under accruals or back-billing of new charges, is not recognised in the revenue calculated as it will not be reflected in the volumes obtained for this year from Target. Therefore, this is included and apportioned between the tariff bands based on the revenue calculated per service (excluding Special Agreements) – the prior year under / over accrual is obtained from the Income & Debt Lead Accountant

Measured waste and trade effluent revenue for the period April-May 2016 is extracted from management account reports. The measured waste revenue provided by the Income and Debt Lead accountant is apportioned by the service split based on the revenue from the management accounts.

The revenue calculated for each service is then checked against the following:

- Management Accounts reported revenue – this is to ensure that before taking into account any movements for the Regulated reported revenue the revenue calculated was accurate
- Table 2I – to ensure reported revenue is aligned appropriately for each service component

The calculated revenue at a tariff level is summed up into the different customer categories within the regulatory tables submitted.

Customer numbers by tariff types are calculated as follows:

- Unmeasured water customer numbers are calculated based on Target reports used in the Charges Submission to calculate the revenue in the steps above
- Measured water customer numbers are calculated based on Target reports used in the Charges Submission and apportioned based on banding
- Unmeasured waste customer numbers are calculated via the Target reports used to calculate the revenue in the steps above, the OWC customer numbers used in the Charges Submission are then included (these were provided by the OWCs)

- Surface Water Drainage customer numbers are calculated via the Target reports used to calculate the revenue in the steps above, the OWC customer numbers used in the Charges Submission are then included (these were provided by the OWCs)
- Measured Waste customer numbers are calculated based on the Target reports used in the Charges Submission, the OWC customer numbers used in the Charges Submission are then included (these were provided by the OWCs)
- Trade Effluent customer numbers are calculated based on the Target reports used in the Charges Submission

## **2I Revenue analysis and wholesale control reconciliation**

### Household/Non-household revenue

The management accounts are prepared on the basis of Target MI allocating customers to either household or non-household based on their service tariff indicator. The revenue for the regulatory accounts needs to be split on a different customer field, i.e. Property Usage Code (PUC). There is a difference between the two coding flags within Target MI.

To prepare the revenue income for the regulatory accounts the material numbers from the management accounts have been reworked to ensure that they are splitting the revenue on PUC.

### Wholesale charges/retail revenue

The wholesale/retail charges are determined as part of the Charges Submission process. The agreed tariffs entered into Target by assigning each tariff to unique codes which identifies whether the tariff relates to (1) water or waste, (2) measured or unmeasured, (3) wholesale or retail charge, (4) household or non-household. Each code contains the SAP GL account (used to capture values in respect of items 1-3) and profit centre (used to capture values in respect of item 4). An interface is posted from Target to SAP to post the transactions into SAP. Selecting the required combination of GL codes and profit centre will report wholesale charges and retail revenue.

### Non price control revenue

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

Refer to table 2A for non-price control revenue assignment methodology.

Reconciliation

A reconciliation has been performed between Severn Trent Water and Water Plus to ensure that the wholesale charges recorded in tables 2G and 2H for each respective company agree to the total wholesale non-household revenue disclosed in table 2I.

## **9. APR Section 4 methodology – Additional regulatory information**

### **4A Non-financial information**

The non-financial information table includes both retail and wholesale disclosures; retail household information regarding the number of void households and per capita consumption; wholesale information regarding volume of water exported to/imported from other companies in bulk supplies and volume information regarding the average amount of potable water entering the distribution network and supplied to customers within the company's area of supply.

### **4B Wholesale totex analysis**

The Wholesale totex analysis compares adjusted wholesale totex (actual totex excluding third party adjustments, pension deficit cash payments, other rule book adjustments and adjusting for transitional expenditure) deflated to base year prices to the allowed totex based on the final menu choice.

Actual totex, third party and pension deficit cash payments values are retrieved from table 2B (Totex analysis – wholesale).

Other rule book adjustments consist of market opening costs partially included in the FD and items disallowed from totex such as exceptional pension gains arising in 2016/17.

The adjusted totex base year prices is calculated by multiplying the adjusted totex by the year average RPI index in the base year of price review setting (2012/13) and dividing by the current year average RPI index. The RPI values are sourced from the website of the Office of National statistics.

The allowed expenditure from menu in base year prices is taken from the Severn Trent Water final price control determination notice (2015-2020) published December 2014.

### **4C Forecast impact of performance on RCV**

The projected 'shadow' RCV is calculated by taking the water and waste water RCV's determined at FD and adjusting for the RCV element of Totex over/underspend and the RCV reward/penalty from ODI performance.

The water and waste RCV's determined at FD are the year's total closing RCV's as set in the FD inflated to nominal year end prices. Ofwat annually publish companies FD RCV's updated for inflation. The updated RCV's can be found on Ofwat's website by following link below:

<http://www.ofwat.gov.uk/publications/regulatory-capital-value-updates/>

The RCV element of Totex over/underspend is determined by using the guidance set out in Ofwat's PR14 reconciliation rule book and Totex menu PR14 reconciliation spreadsheet. This calculates:

- the cumulative over/underspend of totex compared to the cumulative FD allowed totex; and
- the proportion of the over/underspend that is to be adjusted through the RCV using the weighted average PAYG.

The proportion of reward/penalties on ODI's to be adjusted through the RCV is provided by the Wholesale Planning and Performance team and is zero for 2016/17.

#### **4D Wholesale totex analysis - water**

The Wholesale Water totex analysis disaggregates the Water price control costs into business units and upstream services. 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 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.

#### **OPERATING EXPENDITURE**

##### **1. Power**

##### **Definition**

All energy costs, including the climate change levy attributable to each of the Price Controls. Income from energy generation is treated as negative operating expenditure.

##### **Line population and allocation basis**

##### Price control allocation

The largest element of power costs is the purchase of electricity. A download for wholesale is taken from SAP which allocates all costs into water and waste water directly based on activity. The only shared cost not allocated within SAP to a price control is the shared Carbon Reduction Commitment payments. These are apportioned based on direct costs of power into water and waste water.

Where we generate and use our own electricity, income from energy internally generated has been directly allocated to the price control where it was generated and the costs related to this have been directly charged to the price control where the electricity was utilised at market rates.

##### Business unit allocation

To apportion the electricity cost across the four business units, a detailed site by site analysis is performed. The activities of many individual sites fall into multiple business units, so sub-site analysis is performed where necessary.

The principles used are as follows:

1. Site wholly in one business unit then directly attribute.
2. Sites straddling business units apportioned based on average pumping head.



3. Where data not available in (2) above refer to Site Energy Management Plan if available.
4. Where data not available in (2) or (3) above management estimate.

## **2. Income treated as negative operating expenditure**

### **Definition**

Direct and associated external income from energy generation is treated as negative operating expenditure.

### **Line population and allocation basis**

#### Price control allocation

Income from energy generation is allocated to the price control where the energy was generated. This is Water price control for hydro electricity generation and Waste water price control for sludge related electricity generation.

#### Business unit allocation

Income from energy generation is allocated in total to raw water abstraction being business unit where the energy was generated.

## **3. Abstraction charges**

### **Definition**

Cost of abstraction charges (water) and discharge consents (waste water) levied by the environment agency.

### **Line population and allocation basis**

#### Price control allocation

Costs are directly attributed to water and waste water via cost centre assignment.

#### Business unit allocation

Abstraction charges are directly attributable to the Water Resources business unit.

Discharge consents in relation to water treatment works are directly attributable to the Water Treatment business unit.

## 4. Bulk supply

### Definition

Costs for receiving a bulk supply (potable or non-potable supplies) from another water undertaker.

### Line population and allocation basis

#### Price control allocation

All costs are directly attributed to water.

#### Business unit allocation

Bulk Supplies include one Raw Water supply (Water Resources business unit) and numerous Treated Water supplies (Water Treatment business unit) so the costs can be directly attributed.

## 5. Other operating expenditure

In order to provide clean water and waste water services in the most efficient way, the Wholesale operations of the organisation have been organised into various teams and allocated to the relevant price control and business unit by applying the following 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;
- (4) pro-rated on the direct costs of specific expenditure lines before general and support allocations or on a FTE basis where an appropriate driver of costs has not been identified (refer to section 8 General & Support allocation for FTE allocation methodology).

Third party costs are identified in each relevant operating expense line and deducted from the gross costs in order to record separately as third party costs. Line population details can be found in the Third Party Services section.

The Wholesale team structure is as follows:

#### Wholesale Operations (East & West)

Wholesale Operations manage the front line operations for the provision of water and waste water services. Most of the front line operations are directly attributable to price control/business unit by use of cost centre assignment, however management teams combine water and waste water management and therefore require allocation to price control/business unit using the above methodology.

Wholesale Operations also use their Distribution Service Technicians (DSTs) to carry out first time visits to customer properties to investigate issues. Where no network issues are found, costs are recharged to Retail using cost information which has been recorded in SAP. All costs in relation to customer side leaks including initial visits and follow up work are transferred to Retail. Costs of recharges and related FTE are identified by using cost information recorded in SAP.

#### Regulatory Performance Assurance

Regulatory Performance Assurance is responsible for operational support services such as logistical support services, business improvement and regulatory performance.

Costs are allocated between water and waste water to price control/business unit using the above methodology.

#### Network Control and Asset Management

Network Control and Asset Management is responsible for managing the water and waste water network. Operating expenditure is therefore allocated between the water and waste water price controls/business units using the above methodology.

#### Chief Engineer

Chief Engineer is responsible for standards, totex assurance, special projects and research and development.

Most of the activities in this department relate to capital projects and so have no impact on operating expenditure. Time not allocated to capital projects therefore remains as operating expenditure and is allocated between the water and waste water price controls/business units using the above methodology.

#### Asset Creation

Asset Creation is responsible for delivering the wholesale infrastructure delivery programme.

Most of the activities in this department relate to capital projects and so have no impact on operating expenditure. Time not allocated to capital projects therefore remains as operating expenditure and is allocated between the water and waste water price controls/business units using the above methodology.

#### Finance and Performance

The Finance and Performance team works closely with all the Wholesale areas to provide support in terms of both financial and operational support and includes the Water Efficiency team costs which are transferred to Retail (see table 2C for allocation methodology). The

remaining costs of the Planning and Performance team are allocated between the water and waste water price controls/business units using the above methodology.

#### Other allocations between price controls

The Group Transformation team work on transformation projects across the business. Group Transformation costs have been allocated between price controls by assigning the transformation project to the relevant price control/business unit or allocated between price controls/business units using the above methodology.

The costs for all the teams listed above are allocated to price control by the below expense types:

### **5a. Employment costs**

#### **Definition**

Included in employment costs are the gross salaries and wages of all employees, including payments resulting from bonus and profit-related payment schemes, employer's National Insurance contributions, superannuation, pension liabilities, sick pay, sickness benefits, private health insurance, retirement awards, death in service benefits, paid leave, subsistence, travel, entertaining and conference expenses. These are offset with amounts charged to capital projects together with an element of related overhead.

#### **Line population and allocation basis**

Employment costs are recorded in the SAP general ledger by assigning employees to cost centres which fall within the Wholesale cost centre hierarchy. Some cost centres are directly attributable to Water or Waste water and respective business unit. Other cost centres will incur expenditure relating to both Water and Waste water.

SAP work force management enables employees to record their time against different cost centres with reference to the assets they are working on and will therefore allocate costs direct to price control/business unit if the receiving cost centre is assigned to a direct price control/business unit. Where employees perform activities for more than one price control their costs are allocated between the water and waste water price controls/business units using the above methodology.

### **5b. Hired and contracted services**

#### **Definition**

Contracted services include all contracted labour, professional advice (such as lawyers and consultants) computer hardware and software maintenance and support costs and hire of vehicles and plant costs.

### **Line population and allocation basis**

Hired and contracted costs which are directly attributed to a price control are those booked in SAP workforce management (WFM) coded directly to the price control and respective business unit depending upon the asset being worked on, or costs which are directly attributed to price control by cost centre assignment.

Where hired and contracted service costs relate to activities performed in more than one price control; their costs are allocated between the water and waste water price controls/business units using the above methodology.

### **5c. Materials and consumables**

#### **Definition**

This category of cost includes equipment (such as small tools and clothing), provisions, backfill materials, vehicle parts and fuel and chemical costs, but excludes all items capitalised or included within infrastructure renewals expenditure.

### **Line population and allocation basis**

Materials and consumables are directly allocated by the use of cost centres which are assigned to price controls and respective business units. Where materials and consumables relate to more than one price control they are allocated between the water and waste water price controls/business units using the above methodology.

### **5d. Other costs**

#### **Definition**

Other costs include utility costs such as rental costs of depots and offices, insurance premiums and telecoms costs.

OFWAT fees, fines and penalties (including network related GSS payments) and bad debt costs associated with the sale of network services are included in other costs.

Other items such as subscriptions, postage and printing, defined benefit administration fee, audit fees and recharges to/from group companies are also included in this category.

Net infrastructure renewals expenditure is also included within other costs.

### **Line population and allocation basis**

Other costs are directly allocated by the use of cost centres which are assigned to price controls and respective business units. Where other costs relate to more than one price

control they are allocated between the Water and Waste Water price controls/business units using the above methodology.

## **6. Local authority rates**

### **Definition**

The cost of local authority rates. This includes both local authority rates and cumulo rates.

### **Line population and allocation basis**

#### Price control allocation

Sewage works are individually rated; the rateable value for each works includes both sewerage and sludge processes. Sewage infrastructure assets are exempt from business rates, therefore no rates are paid on these assets. Water (cumulo) rates cover both water production and distribution and are calculated as one valuation for the whole company and split into England and Wales rateable values.

The rates for cumulo and sewage works are recorded in separate water and waste water cost centres.

Additional office rates costs have been assigned to price controls from the general and support costs.

#### Business unit allocation

Rates cost has been identified in total and then allocated pro rata to the gross MEAV value of infra and non-infra assets assigned to the business unit headings.

Additional office building rates costs have been assigned to Water from general and support expenditure. These are charged on the basis of floor space occupied.

## **7. Third party services**

### **Definition**

Operating costs of providing services to third parties as categorised per Appendix 1 of RAG 4.

Third party costs are included within the operating expenditure download taken from the SAP General Ledger. Third party costs (including a general and support allocation) are removed from each expense line in the business unit incurring the costs and are recorded as third party costs expense line within the same business unit.

Price control/business unit allocation

- Rechargeable works for repair of damages – Treated Water Distribution and Sewage Collection
- Fluoridation – Water Treatment
- Fire Hydrants – Treated Water Distribution
- Bulk Water – Water Resources (non-potable) and Water Treatment (potable)

**8. General and support activities (G&S)**

General and support expenditure is allocation to water and waste water price controls and respective business units using appropriate cost drivers determined for each support function and is recorded in each respective operating expense line that the expenditure was incurred in. Please refer to the section 8 for the General and support allocation methodology.

**CAPITAL EXPENDITURE**

A SAP business warehouse report produces a detailed view of infrastructure renewals expenditure and capital expenditure and income by business plan line. Each business plan line consists of a series of individual projects, with the total of c.5000 projects over the capital programme. Each business plan line is aligned to a regulatory driver and can have a one-to-one or one-to-many relationship. The regulatory mapping to both price control / business unit and infra / non-infra categorisation is assigned by a combination of the PR14 categorisation and a management view of mapping. The wholesale planning and performance programme analysts work with the relevant project managers to provide the management view and assign expenditure and income on a business plan line to price control, business unit and upstream service level together with the relevant capital expenditure type based on the purpose codes for each business plan line. The assignment of material schemes/projects are reviewed by the Strategy and Regulation team.

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 timing, change in scope or solution), the regulatory assignments are updated. The revised allocation percentages are derived by assessing the material projects in the business plan line and categorising the assets to be delivered by the project against the assets listed in the each business unit in RAG 4 guidance to determine an average calculation by business unit and infra/non-infra. The revised mapping may affect prior year reported figures, in which case the impact of the change is updated in the current year submission so that the correct cumulative position is reported.

The total expenditure is reconciled to the year end additions schedule produced by the Capital Accounting team, the net IRE expenditure is then transferred to the operating expenditure section of the relevant totex tables.

### **Maintaining the long term capability of the assets - infra**

This expenditure relates to spend on infrastructure assets that is required to maintain the long term capability of assets and to deliver base levels of service (IRE). Severn Trent Water accounting policy is to charge net IRE directly to the Income Statement, therefore this is recorded within other operating expenditure in the totex tables.

### **Maintaining the long term capability of the assets – non infra**

This expenditure relates to spend on non-infrastructure assets to maintain the long term capability of assets to deliver base levels of service. This expenditure includes projects coded to business plan lines that contain 'MNI' (Maintenance Non Infra). All spend on management and general (M&G) projects has also been included in this line item.

### **Other capital expenditure – infra**

This expenditure relates to spend on infrastructure assets other than included in 'maintaining the long term capability of the assets – infra'.

### **Other capital expenditure – non infra**

This expenditure relates to all spend on non-infrastructure assets, other than the spend included in 'maintaining the long term capability of the assets – non-infra'.

### **Third party services**

Capital expenditure in relation to providing third party services is recorded in this line item.

### **Grants and contributions**

Grants and contributions in relation to capital projects have been allocated based on the nature of the project to which the grant/contribution relates. This is based on business plan lines which categorise types of projects into blocks of similar projects.

### **M&G expenditure**

Expenditure on M&G assets has been allocated to price control/business units using the following allocation methods.

#### IT projects

Projects are assigned to business plan lines. Therefore, items of a similar nature are grouped. The capital spend on these projects has then been allocated based on the most suitable allocation method. For business plan lines relating to retail IT spend, this has been allocated entirely to retail and therefore excluded from the wholesale table. For business plan lines



that relate to wholesale, project managers have estimated the price control/business unit split for the IS portfolios which they manage.

#### Transport projects

Spend on transport projects has been allocated to price control based on the portion of transport recharges in the year to each price control/business unit.

#### Property projects

Spend on property projects has been allocated to price control/business unit on a line by line basis by establishing the nature of the spend, the area of the business it benefits and the property/site it relates to. The Property Finance business partner liaises with the relevant project manager to determine price control assignment.

### **CASH EXPENDITURE**

#### **Pension deficit recovery payments**

##### Price control allocation

Pension deficit recovery payments have been allocated by price control by pro-rating the costs against the number of employees in each price control who are members of the scheme. The number of employees in each price control is calculated by using a SAP HR report which provides number of employees by business function (Wholesale, #Customer, Business Services and Support functions).

Business Services employees are further split by regulated energy, retail non-household and developer services therefore assigned to wholesale and retail price controls. Support function employees are assigned to price controls using the same allocation percentages as the G&S costs allocation. This will give wholesale and retail employee numbers. Wholesale employees are finally split into water and waste water price controls using the Wholesale FTE percentage allocation as a basis.

##### Business unit allocation

Allocation to business unit applied the direct business unit cost percentages used in operating cost allocation. The costs are further allocated to upstream services. No costs are allocated to Abstraction licences or Raw water storage due to low value of employment costs in these services.

### **Wholesale water upstream services**

The wholesale water operating and cash 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.

### **Water resources (Abstraction licence and Raw water abstraction)**

#### **Total operating costs**

The abstraction licence costs themselves are identifiable in the general ledger and are attributed to this service. Employee and other costs have been identified and apportioned based on estimate of time spent on negotiating licences with third parties. Chemical costs have been identified and allocated between abstraction licence and raw water abstraction based on the reservoirs to which they relate. All other costs included in water resources are included in the raw water abstraction service.

### **Raw water distribution (Raw water transport and Raw water storage)**

#### **Power**

All power costs included in the raw water distribution business unit are allocated to the raw water transport service. This is on the basis that raw water storage uses negligible power.

#### **Other operating expenditure**

An allocation of the costs of the Aqueducts team, which undertakes work relating to both raw water and treated water assets, is made to the raw water distribution business unit. The entirety of this cost is attributed to the raw water transport service. An allocation of overhead costs within the water service and an allocation of general and support costs is made. This is allocated in proportion to the direct costs.

**Local authority rates**

Local authority rates included in the raw water distribution business unit are 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.

**Water treatment**

No disaggregation of water treatment to upstream services is required.

**Treat water distribution**

No disaggregation of treated water distribution to upstream services is required.

## **The derivation of the quantities used to calculate the unit cost information**

### **Licensed volume available**

The number of abstraction licenced quantities across the Severn Trent estate are recorded centrally in mega litres (ML).

### **Volume abstracted/transported**

The total daily volume data from Operator readings and telemetry data is collected across the Severn Trent estate, these numbers are then totalled for all sites for the year, giving total abstractions.

It is assumed that the total volume transported is the same as the volume abstracted.

### **Average volume stored**

The total daily volume data is recorded weekly and the average volume stored number used is an average of these weekly numbers.

### **Distribution input volume**

Water distributed into supply is calculated monthly and is based on meter readings recorded in across the Severn Trent estate.

It is assumed that the distribution input volume for water treatment and treated water distribution is the same.

## **4E Wholesale totex analysis – Waste water**

### **OPERATING EXPENDITURE**

Refer to Table 4D for the definitions of the items included in each expense line. Disaggregation cost line into business unit is outlined below:

#### **1. Power**

Where a site provides services to more than one business unit, and there is no sub metering on site, the electricity bill is allocated between Sewage Treatment and Sludge Treatment based on the Site Energy Management Plan (SEMP).

#### **2. Income treated as negative operating expenditure**

The income from internally generated energy generated by the business has been directly allocated to the business unit where it was generated, sludge treatment.

#### **3. Service Charges**

Discharges from surface water network to canals is attributed to sewage collection.

Discharges from sewage treatment works are attributed to sewage treatment.

#### **4. Other operating expenditure (including employment costs, hired and contracted services, materials and consumables and other costs)**

Other operating costs are 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 using the below methodology.

- (1) by identifying specific cost drivers by retrieving the relevant management information;
- (2) management estimate where management information is not available;
- (3) pro-rated on total direct costs of business units excluding rates, service charges, power and negative operating costs before general and support expenditure allocations.

#### **5. Local authority rates**

These are allocated to business unit based on non-infra GMEAV of waste water assets. Additional office building rates costs have been assigned to waste water from general and support expenditure. These are charged on the basis of floor space occupied.

### **Third party services**

Third party services in relation to rechargeable works for repair of damages are charged to sewage collection.

### **CAPITAL EXPENDITURE**

Refer to Table 4D for the Waste water capital expenditure line definition and price control/business unit allocation methodology.

### **CASH EXPENDITURE**

#### **Pension deficit recovery payments**

Refer to Table 4D for the price control/business unit allocation of the pension deficit recovery payments.

The costs are further allocated to upstream services. Sewage collection allocation to upstream services uses the same cost driver percentage that is used for operating cost allocation and Sewage treatment allocation to upstream services is pro-rated against the total operating costs for these services.

### **WASTE WATER UPSTREAM SERVICES**

The Wholesale Waste water operating and cash expenditure is allocated to an 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; and
- (3) management estimate where management information is not available

Capital expenditure allocated to an upstream service either 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.

## **SEWAGE COLLECTION**

### **Foul, Surface water drainage and Highway drainage**

#### **Total operating expenditure**

Costs relating to foul flows in the sewerage network have been derived by analysing power usage over a period of time to calculate daily average power usage during dry periods. Power usage levels above the average are assumed to be associated with drainage. This analysis has been undertaken for large sites (half hourly metered sites) on the sewerage network. Operating costs are pro-rated between foul and drainage based on the value of power costs attributed to each. The cost allocated to drainage is further split between surface water drainage and highway drainage based on the relative surface area associated with buildings and roads and paths using Office of National Statistics data.

## **SEWAGE TREATMENT**

### **Sewage treatment and disposal and Imported sludge liquor treatment**

The sewage treatment service includes all the activities related to the treatment and disposal of sewage. Imported sludge liquor treatment includes all activities in transporting and treating liquors at a sewage treatment plant that have been generated during the sludge treatment process. This excludes liquor treatment which is done at a self-contained sludge processing centre.

The calculated costs for imported sludge liquor treatment are deducted from total sewage treatment costs to arrive at the sewage treatment and disposal costs.

#### **Imported sludge liquor treatment costs**

The liquor load has been calculated from the measured sludge to digestion figures. The ammonia load associated with liquor treatment is X tonnes/annum. The total ammonia load treated by all sewage works can be estimated by taking 8g/head/day and the population equivalent number for the given area, giving a total of Y tonnes/annum. Therefore, liquors represent approximately X/Y% of the total loads.

The total operating costs for liquor treatment are broken down as follows:

#### **Power**

Industry calculation standards have been used to calculate the power associated with treating the load in the liquors. (The WRc equation gives a value of 4.3kg oxygen requirement to treat 1kg of ammonia, assuming 1.5kg oxygen per kWh installed aeration). This number is multiplied by the average cost per MWh for a large works to arrive at power costs.

### **Other operating expenditure**

Other operating costs are mainly made up of:

Chemical costs - there are two main drivers of chemical costs in the liquor treatment process: sodium hydroxide dosing for alkalinity correction at specific liquor treatment plants (there are currently two in operation) and anti-struvite dosing preventing scaling in pipes and equipment. Chemical costs relating to liquor treatment have been allocated to imported sludge liquor treatment based on the costs of the specific chemicals or management level at a site level.

Employment costs - mainly costs associated with dealing with the effects of struvite scaling in pipes and equipment. An allowance has been made for this by estimating the costs for one site and applying to the number of dewatering centres.

### **Local authority rates**

Local authority rates are pro-rated on the proportion of sewage treatment load represented by liquor treatment activity.

## **SLUDGE**

### **Sludge transport, Sludge treatment and Sludge disposal**

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.

### **The derivation of the quantities used to calculate the unit cost information**

#### **Volume collected – foul**

The total daily volume data from MCERT flow meters is collected across the Severn Trent estate, these numbers are then totalled for all sites for the year, giving total ML collected.

#### **Volume collected - surface water drainage**

The total daily volume data from MCERT flow meters is collected across the Severn Trent estate, these numbers are then totalled for all sites for the year, giving total ML collected.

#### **Volume collected - highway drainage**

The total daily volume data from MCERT flow meters is collected across the Severn Trent estate, these numbers are then totalled for all sites for the year, giving total ML collected.



### **Biochemical Oxygen Demand (BOD) - sewage treatment and disposal**

This figure is firstly taken direct from the reported BOD/d load figure from 'Table 14 – Waste water service – Potential explanatory variables (line 7)', that number is then multiplied by 365 (days) and divided by 1000 to give tonnes BOD/annum.

### **Biochemical Oxygen Demand (BOD) - sludge liquor treatment**

The starting point for the calculation is the reported total feed to digestion data which is extracted in tonnes of dry solids/annum by site (extracted from JRP).

The digester feed is then converted to liquors flows by assuming a digestion input thickness of 3.95%DS, solids destruction in the digesters of 70% and a cake thickness of 25%DS post digestion.

It is assumed that the average ammonia concentration is 600mg/l. The digested ammonia load is calculated as kg/annum (volume \* ammonia concentration).

Sites with liquor treatment processes are then identified, (taken from a 2014 review evaluating Severn Trent Water's sludge assets) with ammonia removal percentages for each site with liquor treatment input as follows:

- Minworth – 75% removal (feedback from the process design team)
- Stoke Bardolph – 2% removal (feedback from the process design team)
- All other liquor treatment plants – 90% removal (based on feedback for 2 sites out of 5 from the process design team).

The total digested ammonia load (kgNH<sub>3</sub>/annum) can then be calculated using these factors (or a 0% removal for sites without liquor treatment).

The line 25 BOD load value is then converted into an equivalent ammonia load in kgNH<sub>3</sub>/annum (NH<sub>3</sub> load = (BOD load/(60 \* 8))). Using this number the ratio of digested ammonia load to the equivalent sewage ammonia load can be calculated (ratio = digested ammonia load/sewage ammonia load). This ratio is then multiplied by the original Line 25 value to give an equivalent BOD load in tonnesBOD/annum.

### **Volume transported - sludge transport**

The number of tanker discharge loads are (whether performed by STW or one of our appointed contractors) are recorded at each site through a 'sludge logger' at the reception centre.

The sludge logger records date, time, volume, % dry solids and the origin site. From this data it is possible to then calculate the volume of transported dry solids.

### **Dried solid mass treated - sludge treatment**

Every digester at Severn Trent has a feed flow meter / logger, which record the flows into the digester. The data from each logger is feed into the 'JRP' web portal which is the Corporate System allowing daily reporting of feeds per site.

The total annual volume for all digesters is then extracted from the system for reporting purposes.

### **Dried solid mass disposed - sludge disposal**

This is the total volume of biosolids transported to land.

All dried solid loads being transported to land are weighed through weighbridges, where unavailable a calibrated vehicle weigh cell is used.

The sludge is sampled quarterly to give a %DS, which is fed into BIO (landbank management system) through QUIS, which is the corporate systems.

The weight data is uploaded onto the 'JRP' portal which is the corporate system. The data is then fed from 'JRP' into BIO which our corporate landbank management system.

BIO reports all deliveries made throughout the year, automatically calculating the total dried solids based on the sample % dried solids.

The total dried solids is then reported.

## **4F Operating cost analysis – Household retail**

Table 4F shows the costs of the retail household business split into the following 6 categories; household unmeasured water only, household unmeasured waste water only, household unmeasured water and waste water, household measured water only, household measured waste water only and household measured water and waste water.

### **Household costs**

All household costs from table 2C have been identified in the household costs column split by activity type (e.g. customer services, debt management, doubtful debts, meter reading, services to developers, and other operating expenditure).

These household costs are now allocated to customer types using the methods described in the sections below:

### **Customer numbers**

The customer numbers for each type of customer represent the same customer base disclosed in the table 2F Household – revenues by customer type. Please refer to the customer number split methodology in this section.

#### **1. Customer Services Cost**

Customer Service costs included in 2C are based on several cost elements. Each cost element uses different drivers to split the costs between the customer types:

##### **1.1. Billing Costs**

Billing costs are split into each customer type by using bill volumes sent to measured and unmeasured customers. Bill volumes are found in the Annual Document summary provided by the Partner Account Management team. The volumes are used to generate proportions in which to split the total cost shown in table 2C into measured and unmeasured subtotals.

Bill numbers are the sum of:

Unmeasured:

- Unmeasured Bills
- Unmeasured PP (Pay Plan) Statements
- Unmeasured Booklet

Measured:

- Measured Bills
- Measured PP (Pay Plan) Statements

Once subtotals for measured and unmeasured have been calculated, the figures are further split using customer numbers for each customer category (Water & Waste, Water Only, Waste Only), based on customer numbers in 2F.

#### 1.1. Payment handling

Payment handling costs are split into measured and unmeasured subtotals by applying total number of payments for each account type. The total costs in 2C for household payment handling costs are multiplied by the proportion of total payment volumes for measured and unmeasured accounts to calculate subtotals for each. The subtotals are then split further into customer categories by using total customer numbers from Table 2F.

#### 1.2. Vulnerable customer schemes

Splitting the vulnerable customer schemes using reports providing customer numbers for those on Health Checks, Proactive Metering, Social Tariffs and Watersure. The social tariff customer volumes are further split into measured and unmeasured using a further report which provides this information. Each of the schemes are then split into customer numbers for measured and unmeasured as below:

Health Checks: split by customer numbers on measured and unmeasured.

Proactive metering: relate to unmeasured customers only in relation to proactively finding and working with unmeasured accounts to move them on to measured.

Social Tariff: split by customer accounts as per social tariff report.

WaterSure: measured customers only.

Using these splits allows for a subtotal of total unmeasured and measured accounts, and is applied to the total cost from table 2C. The subtotal is then further split into the customer categories by customer numbers.

#### 1.3. Non network customer enquiries and complaints

Non network customer costs in 2C are split into measured and unmeasured subtotals using contact volumes provided by the Customer Service function. Unmeasured and measured subtotals are then split into the customer categories using customer numbers from table 2F.

#### 1.4. Network customer enquiries and complaints

Network customer enquiries and complaints costs from 2C are split into measured and unmeasured subtotals using contact volumes into the COSC call centre. Unmeasured and

measured subtotals are then split into the customer categories using customer numbers from table 2F.

## **2. Debt management costs**

Debt management costs are split using the value of debt over 1 year for measured and unmeasured debt. These proportions are applied to the cost in 2C and then further split using customer numbers into the customer categories using figures in table 2F.

## **3. Other Costs**

All other cost lines are split using customer numbers, with the exception of metering costs. These costs only relate to measured accounts and are split using customer numbers for measured accounts only.

### Demand-side water efficiency

The majority of the demand-side water efficiency initiatives are performed in the Water Efficiency team (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 recorded as gross expenditure.

The gross expenditure 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 against performance commitments. This element is therefore transferred back to wholesale and assigned 100% to Treated Water Distribution.

The net retail expenditure recorded in other operating expenditure is the gross expenditure less the amount funded by wholesale.

### Customer-side leak repairs

The costs of customer side leaks are recorded in the water price control. They are identified and are captured in SAP Workforce Management using specific activity types. The costs of the initial visit and follow up visit including repair costs along with the associated FTE are transferred to retail and allocated 100% to gross expenditure customer side leaks.

The gross expenditure is compared to the retail baseline set in the FD. Any expenditure above the baseline is considered to be wholesale expenditure in relation to meeting wholesale

outcomes against performance commitments. As customer side leaks activity has reduced this year due to change in company policy the baseline has not been exceeded, therefore there is no transfer to wholesale.

The net retail expenditure recorded in other operating expenditure is therefore the same value as the gross expenditure.

#### **Retail depreciation and amortisation**

Retail depreciation and amortisation is sourced from table 2A for both depreciation and amortisation values.

These numbers are split further into household unmeasured and household measured and further disaggregation using household measured and unmeasured bills, statements and booklets allocations as per 1.1 above.

#### **4G Wholesale current cost performance**

The wholesale current cost performance table outlines a summary current cost accounting income statement split between the water and waste water price controls.

##### Revenue and operating costs

The revenue, other operating income and operating expenditure (excluding depreciation) is the same as that recorded in the Segmental income statement (2A) and Totex wholesale analysis table (2B) respectively.

##### Capital maintenance charge

The capital maintenance charge includes infrastructure renewals charge for below ground asset and current cost depreciation for above ground assets.

Infrastructure renewals accounting is based on an operational assessment of activity needed to maintain the serviceability of the underground infrastructure.

The infrastructure renewals charge is calculated for water and waste water service based upon actual/forecast infrastructure renewals expenditure over AMP6, to give an indicative calculation for a medium term cost.

The current cost depreciation charge on tangible fixed assets is calculated for each price control.

The data is provided from the analysis of fixed assets table data. M&G assets are assigned to a principle user and the recharges to and from other business units are included in the overall

capital maintenance charge. Allocation is completed in the analysis of fixed assets tables. The fixed assets table used for the capital maintenance charge is the Current Cost Accounting Fixed Assets Register. This is uplifted annually for RPI, for all additions from April to February of the financial year. March additions are assumed to be at current cost.

The IRE charge for the year is deducted from the total to avoid a double count in the operating costs number which includes IRE.

#### Other income

Other income which comprises rental income is allocated between wholesale water and waste water on the proportion of operational buildings for each price control.

#### Net interest expense and fair value gains/(losses) on financial instruments

All debt is allocated to the wholesale business on the assumption that there is no material debt in the retail business. Financing costs are allocated between Water and Waste water based on the proportion of RCV determined at FD at the year end for the respective price controls.

#### **4H Financial metrics**

All debt is allocated to the wholesale business on the assumption that there is no material debt in the retail business. Financing costs are allocated between wholesale water and waste water based on the proportion of RCV determined at FD for the respective price controls.

#### **4I Financial derivatives**

The group holds a number of derivative financial instruments in order to mitigate exposure to financial risk.

#### Interest rate swaps

Interest rate swaps are held to mitigate exposure to changes in market interest rates. Nominal value by maturity is shown as the net of fixed to floating rate swaps and floating to fixed rate swaps. Mark to market value is calculated by discounting estimated future cash flows. The weighted average interest rate is calculated using the contracted interest rate. For floating rate debt, the rate as at 31 March 2017 has been included.

#### Cross currency swaps

Cross currency swaps are held to mitigate the group's exposure to exchange rate movements on amounts borrowed in foreign currencies. The group holds debt in US Dollars, Euros and Japanese Yen. All of the group's cross currency swaps are fixed to floating rate. Mark to market value is calculated by discounting estimated future cash flows, with currency cash

flows translated at the spot rate. The weighted average interest rate is calculated using the contracted interest rate. For floating rate debt, the rate as at 31 March 2017 has been included.

Although details of only derivatives relating to financing arrangements are required to be disclosed in the financial derivatives table, energy swaps information has also been disclosed in a separate narrative note in order to agree back to the financial instruments disclosure in the statutory accounts.

#### Energy swaps

Energy swaps are held to mitigate the group's exposure to changes in electricity prices. The group has entered into a series of energy swaps under which it has agreed to exchange the difference between fixed and market prices of electricity at six-monthly intervals up to March 2020. Notional values and average prices are shown as the contracted amounts. Mark to market value is calculated by discounting estimated future cash flows.



## 10. General and support allocation methodology

### Definition

General and support activities include all centrally provided services, except for any items specifically recorded in direct costs. The following services are included where not already recorded in direct costs:

- Group Commercial – Stores;
- Group Commercial – Transport;
- Group Commercial – Procurement;
- Directors;
- General Counsel;
- Human Resources;
- Strategy & Regulation – Regulation;
- Strategy & Regulation – Strategy;
- Strategy & Regulation – Communications;
- Finance, Assurance & Business Intelligence;
- Insurance;
- Miscellaneous reporting;
- Information Services (IS); and
- Property.

### Line population and allocation basis

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

Where possible, specific cost drivers are used to allocate general and support costs to price controls. For example: Transport Recharges to allocate Transport costs; or floor space to allocate Facility Management Costs.

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

### FTE Calculation

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.

Where hired and contracted labour utilise the fixed overhead support functions, the FTE allocation includes contractor resource in the calculation.

### Process

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:

- (1) Direct – employees on the payroll, including fixed term contractors
- (2) 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.

As part of the operating expenditure allocation process, cost centres have been assigned to price controls, business units or identified as shared. For cost centres whose activity falls within one price control or business unit, we have assigned all of the FTEs associated to that cost centre to the related price control or business unit.

For a number of cost centres such as Asset Creation and Developer Services where most of the costs have been capitalised, we have removed a proportion of FTEs 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.

For a number of areas where the total activity is in a price control which differs to the required price control (due to organisation structure) e.g. meter reading activities fall within the wholesale structure in Severn Trent Water but are a retail activity for regulatory purposes, we have transferred the FTE's between the price controls based on the costs associated with the activities.

Costs associated with cost centres whose activity straddles more than one price control or business unit are allocated by identifying specific cost drivers by retrieving the relevant management information to calculate this or management estimate where management information is not available.

The calculated cost drivers and the resulting allocation percentages are also applied to FTE's associated with that cost centre (therefore allocating FTE associated with the costs to the relevant price control or business unit). This approach is followed for all shared cost centres with the exception of general and support cost centres, cost centres where an appropriate driver of costs has not been identified, and shared retail costs.

Retail FTEs within shared costs centres are allocated between retail household and retail non-household price controls based on total costs (post allocations between price controls but pre G&S allocation).

This adjusted FTE calculation provides a percentage allocation between price controls, which we have used for general and support costs requiring allocation based on FTE and also for cost centres requiring allocation based on FTE (i.e. cost centres where an appropriate driver of costs has not been identified).

### Third party contractors

The above allocation is updated to include contractors where contract resource also utilises our support network. Third party contractor information is obtained from the Group Commercial Senior Contract Managers sourced directly from the suppliers. The Senior Contract Managers confirm which price control and business unit the contracts relate to and if they are shared over Business Unit or Price Controls. The average contractor FTE is calculated and added to the FTE calculation excluding contractors.

### Allocation to Retail non-household

On 1 June 2016 the disposal of the retail non-household activities to Water Plus (our joint venture with United Utilities) was completed. General and support expenditure allocated to retail non-household therefore only reflects two months of charges to reflect the utilisation of the support functions during this time.

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

General and Support Cost	Source of Information	Basis of Allocation
Group Commercial – Stores	Allocation based on timesheets.	The team have completed time sheets to allocate their time between retail, water and waste water and this has been further split to the sub categories within wholesale.
Group Commercial – Transport	Vehicle & plant recharges are downloaded from SAP.	Transport is allocated directly to water, waste water, retail household and retail non-household based on the internal vehicle and plant recharged throughout the year.  Where the recharges have been posted against general and support business areas, the costs are allocated between water, waste water, retail household and retail non-household using FTE.
Group Commercial – Procurement	Allocation based on timesheets.	Employees have estimated the proportion of their time spent in each price control

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		<p>and business unit via timesheets. Roles within Procurement Wholesale team 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.</p> <p>The Commercial Support team is slightly different consisting of Value Transformation and Performance &amp; Governance teams: the former also complete timesheets, the latter support the main Procurement team so are allocated on the same basis.</p>
Directors	Allocation based on time sheets for manpower; for non manpower based on transactional analysis.	Manpower costs are allocated based on completion of time sheets splitting out time spent working in water, waste water, retail household and retail non-household and relevant business units. A transactional analysis is carried out on non manpower to allocate any costs directly to price controls/business units.
General Counsel	Allocated on the basis of price control FTE (including 3 <sup>rd</sup> party contractors).	The costs are allocated on a basis of FTE (including 3 <sup>rd</sup> party contractors) between water, waste water, retail household and retail non-household.
Human Resources	Allocated on the basis of price control FTE (excluding 3 <sup>rd</sup> party contractors).	The costs are allocated on a basis of FTE (excluding 3 <sup>rd</sup> party contractors) between water, waste water, retail household and retail non-household as the contractors do not utilise the services of the HR team.
Strategy & Regulation – Regulation	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 non manpower costs based on transactional analysis.	<p>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.</p> <p>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></p>

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		Retail and 8/9 <sup>th</sup> water and waste water. Retail costs are further allocated based on customer numbers between retail household and retail non-household (for the applicable period pre transferring the business to Water Plus). Water and waste water are allocated equally to avoid bias between price controls.
Strategy & Regulation – Strategy	Manpower is allocated on the basis of price control FTE (including 3 <sup>rd</sup> party contractors).	Manpower costs are allocated on a basis of FTE (including 3 <sup>rd</sup> party contractors) between water, waste water, retail household and retail non-household.  A transactional review of non manpower is carried out on the transactions for items that relate specifically to water, waste water and retail.
Strategy & Regulation – Communications	Manpower is allocated on the basis of price control FTE (including 3 <sup>rd</sup> party contractors) and a transactional review of non-manpower spend.	Manpower costs are allocated on a basis of FTE (including 3 <sup>rd</sup> party contractors) between water, waste water, retail household and retail non-household.  A transactional review of non manpower is carried out on the transactions for items that relate specifically to water, waste water and retail; the remaining costs are allocated to price controls based on company FTE.
Finance, Assurance & Business Intelligence	Allocated on the basis of price control FTE (including 3 <sup>rd</sup> party contractors).	The costs are allocated on a basis of FTE between water, waste water, retail household and retail non-household.
Insurance	Allocated on the basis of price control FTE (including 3 <sup>rd</sup> party contractors).	Direct insurance costs are allocated direct to price control. Remaining insurance costs are allocated on basis of FTE between water, waste water, retail household and retail non-household.
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 based 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:

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		<p>The MOSL fees are wholesale costs and allocated to water and waste water based on revenue allocation; LTIPs costs are allocated on the same basis as Directors; DB pension Admin costs/SAYE costs are allocated on the basis of FTE (excluding 3<sup>rd</sup> party contractors).</p>
Information Services	<p>IS support costs are attributed to specific Wholesale, Retail or General &amp; Support IS systems.</p> <p>These are further allocated to price control on the basis of Wholesale and Retail FTE (including 3<sup>rd</sup> party contractors).</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 FTE numbers.</p> <p>As Severn Trent Water operates a hot-desking policy where the office space capacity is less than total number of employees at any point in time, due to annual leave, external meetings, sickness etc, it is considered that FTE is an appropriate driver to use as the allocation materially relates to number of computers.</p> <p>Wholesale is further allocated between Water and Waste water based on Wholesale FTE. Retail is allocated between retail household and retail non-household based on retail FTE.</p> <p>General and support IS costs are allocated across water, waste water, retail household and retail non-household in proportion to the value of costs that are already assigned to these areas.</p>
Property – Facility Managed (FM) sites	<p>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> <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 as a proxy for the floor space share, with the exception of the Monkspath site and Pride Park site.</p> <p>The Monkspath site contains IS servers and is allocated using the general and support IS allocations.</p> <p>Pride Park is a call centre and is solely retail and is allocated between retail household and retail non-household based on call volumes. The central cost centre contains</p>

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		<p>facility managed contract costs and the manpower cost of Service Delivery Managers who look after the FM estate and wholesale operations property estate.</p> <p>The manpower costs is 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.</p>
Property – Wholesale Operational sites	Transactional spend analysis from SAP download reports and supporting invoice documentation.	A transactional analysis of the operational site costs cost centre is analysed 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 properties.
Property Visitor Experience Team (VET) sites	SAP reports are downloaded for Portfolio Manager Cost centres cost.	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.
Property Services Manager	SAP report of Cost centre spend and price control allocation of above property services allocation.	Allocated pro-rata against the weighted average price control allocation of all other cost centres (above).

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

Summary %	Water Resources	Water Network+	Waste Nework +	Sludge	Household	Non household
Group commercial (including Transformation)	4.4%	44.5%	37.3%	12.2%	1.6%	0.0%
Transport	1.8%	35.5%	34.1%	20.6%	6.2%	1.8%
Directors	11.1%	38.0%	24.9%	10.0%	9.6%	6.4%
General counsel	5.7%	31.6%	29.8%	14.4%	16.5%	2.0%
Human resources	7.3%	36.0%	22.8%	11.0%	20.0%	2.9%
Strategy & regulation (including Communications)	8.6%	30.9%	27.0%	13.4%	18.3%	1.8%
Finance, Assurance & BI (incl. Insurance & Misc. Reporting)	6.9%	34.2%	25.9%	12.7%	18.4%	1.9%
Information systems	5.2%	28.9%	24.9%	12.2%	27.5%	1.3%
Property	8.2%	29.5%	41.5%	4.7%	15.4%	0.7%
Total	7.1%	32.5%	30.1%	9.7%	19.1%	1.5%

## **11. Capital expenditure process**

### **Capital investment framework**

The company's capital investment framework (CIF) process is well defined. Within the framework process, large capital programmes are managed, controlled and monitored. For each project the project manager is required to submit a business case template outlining the extent to which they believe the costs represent operating and capital expenditure. These proposals are submitted at approval bodies (such as programme boards) where project managers (typically engineers) discuss their projects with finance professionals from the Analyst teams. The Analyst team, in consultation with the Investment Governance analyst, scrutinises these applications and assesses the accuracy around 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. However, 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 judgement on the issue.

Periodically, the Analyst team may request that 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. The objectives of these guidance notes is to provide an overview of the issue, describe the relevant accounting principle and recommend an appropriate course of action, in a manner that will benefit both finance and non-finance professionals in the future.

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

This is the mechanism in place to enable the recovery of costs from departments (primarily Support) whose activities are indirectly linked to the capital programme. We have a process that calculates these costs and allocates them to capital accordingly.

The burden rate that is entered into the system, to be applied to all capital coded expenditure, is calculated as follows:

- Staff and support function costs to be recovered as a percentage of the total capital programme = overhead rate.

This information is refreshed at half year and then finalised at the year end.

Information is downloaded from the ledger to ascertain gross costs and then there are two methods of calculating the figure to capitalise:



- Liaison with the business determines the appropriate allocations of both manpower and non-manpower costs e.g. Finance and Purchasing.
- A proportion of direct manpower recharges to gross manpower costs are applied to the remaining areas e.g. Human Resources and Property Services.

## **12. Capital expenditure accounting policy**

### **1. Introduction**

The capital expenditure accounting policy applied by Severn Trent Water Limited is prepared in accordance with IAS 16 'Property, Plant and Equipment' and the appropriate Regulatory Accounting Guidelines. The content of this document is the responsibility of the Group Financial Control and Regulatory Reporting department (Group Finance) who through their own research, and regular interaction with external auditors, keep abreast of changes in the accounting landscape that may impact the company's accounting policies. The capital expenditure accounting policy falls within the scope of this work and consequently is updated to reflect such changes as required. In recent years there have not been any significant changes in the UK accounting framework with regards to the treatment applied to tangible fixed assets.

The company's capital expenditure accounting policy is structured to address both the requirements of the accounting standards and the needs of the business. Specifically, it addresses the following issues:

- The range of tangible fixed assets employed by Severn Trent Water;
- The accounting principles that determine which costs should be capitalised;
- The accounting treatment applied to infrastructure assets;
- Depreciation; and
- Disposals and assets taken out of commission.

#### **1.1 Objectives**

The objective of the Severn Trent Water Capital Expenditure accounting policy is to provide users with sufficient guidance to apply the correct accounting treatment to each stage of the investment life cycle.

#### **1.2 Definition of capital investment**

Capital investment provides a benefit over a period of years and normally involves the construction, provision, replacement, improvement or major renewal of an asset.

#### **1.3 Severn Trent Water accounting policy**

The Company's accounting policy for capital investment is compatible with new UK GAAP FRS101 and IAS 16.

### **2. What type of tangible fixed assets does Severn Trent Water employ?**

The fixed assets employed by the company fall into two broad categories: infrastructure assets and other assets.

## **2.1 Infrastructure assets**

In general terms infrastructure assets are those assets that form the fabric of the water network used by the Company in its day to day activities.

The Regulatory Accounting Guidelines define infrastructure assets as comprising a network of systems being mains and sewers, impounding and pumped raw water storage reservoirs, dams and sludge pipelines. Further assets such as raw water aqueducts, river outflows and zonal investigation records also fall within this category.

## **2.2 Other assets**

Other assets include all assets not classed as infrastructure. These fall under the headings

- Freehold land
- Buildings
- Operational structures
- Fixed plant
- Vehicles, mobile plant and computers
- Assets under construction

These assets are held on the fixed asset register at their cost less accumulated depreciation. Assets under construction are depreciated once the assets are available for use.

## **2.3 Assets held under finance leases**

This category includes assets financed by leasing arrangements which are treated as if they are owned by the Company. This is because a financing leasing arrangement transfers substantially all the risks and rewards of ownership from the lessor (the leasing company) to the lessee (Severn Trent).

The assets are accounted for as if they had been purchased and the corresponding capital cost is shown as an obligation to the lessor through the creation of a finance lease creditor.

At the inception of the lease the transaction should be recorded as both a fixed asset and a finance lease creditor. This value should be the present value of future lease payments which is derived by discounting them at the interest rate implicit in the lease.

Lease payments are treated as consisting of a capital element and a finance charge, the capital element reducing the obligation to the lessor and the finance charge being written off to the profit and loss account over the period of the lease in proportion to the capital amount outstanding.

## **2.4 Operating leases**

Under the terms of an operating lease the Company acquires the right to use an asset without obtaining the risk or rewards associated with that asset. The Company will be charged a fee for this service. Usually the Company does not have the obligation to repair the asset in the event of it breaking down. Consequently, assets held under operating leases are not included in the fixed assets register and the only accounting entries that should be made relate to the monthly rental charge.

## **3. Capitalising costs**

### **3.1 Overview**

IAS 16 requires that tangible fixed assets should initially be measured at cost, which should include only those costs directly attributable to bringing the asset into working condition for its intended use. This concept is explained in further detail below.

### **3.2 Directly attributable costs**

Directly attributable costs include

- Production costs: the price of raw materials plus the direct costs of production;
- Labour costs of the Company's own employees arising in the construction or acquisition of the tangible fixed asset;
- Incremental costs incurred by the Company that would have been avoided only if the tangible asset had not been constructed or acquired; and
- Costs of dismantling and removing an asset, and restoring the site.

Specific examples:

Only the directly attributable costs associated with bringing an asset into its intended use should be capitalised. Therefore:

- Costs of renting alternative office space whilst construction of a new office takes place are expenses incurred in the normal course of business and should not be capitalised;
- Migration costs associated with an IT project are not directly attributable to bringing the asset into its intended use and should not be capitalised; and
- Costs of construction of a diversion to enable overhaul of a water pump should not be capitalised as they represent work undertaken to enable the company to continue its day to day operations, rather than being directly attributable to bringing the asset into its intended use.

- Costs relating to staff training may only be capitalised where they relate to training materials, which can be retained to provide a future benefit to the company. Other costs incurred during the training of staff should not be capitalised as the company cannot control when employees leave the company, making their training redundant.

### **3.3 Treatment of specific costs**

Other specific costs are treated as follows:

#### **3.3.1 Borrowing costs**

Company policy is to capitalise borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset, in accordance with IAS 23. A capitalisation rate is applied to the expenditure on assets, based on the weighted average of the borrowing costs applicable to the borrowings of the entity that are outstanding during the period.

#### **3.3.2 Overheads**

Currently, costs incurred on a project comprise a raw cost (the invoice cost) and a 'burdening' cost. The burdening cost relates to overheads which would not have been incurred in the absence of capital works. The capital burdening comprises two categories:

- Staff costs that cannot be directly attributed to specific projects. Typically this would include staff undertaking strategic or programme management activities across the entire programme; and
- Support function costs that would not be incurred if the capital programme did not exist. The burdening cost is the percentage that is applied to the raw cost of each transaction to reflect its element of overheads that are directly attributable to bringing the asset into its intended use.

An overhead recovery rate is established at the beginning of each period to include an appropriate apportionment of these costs. At the end of the accounting period an exercise is performed to 'true-up' the overhead absorption to reflect actual costs observed during the period. These tasks are performed by the Financial Performance department.

#### **3.3.3 Labour costs**

Only those labour costs that relate to the time spent by employees on constructing or acquiring a specific asset should be capitalised. Therefore, if an engineer spends only 25% of their time on developing a particular asset then only 25% of their labour costs should be capitalised.

### **3.4 Subsequent expenditure**

The Company should only capitalise further expenditure on an asset that has been brought into use under the following circumstances:

- It results in an improvement to the original performance of the asset beyond the previous estimate or extends the life of the asset;
- It replaces a component of an asset that has been treated separately for depreciation purposes and depreciated over its individual useful economic life; and
- It relates to a major overhaul of the asset and restores the economic benefits that have been used up by the Company that have already been reflected in the depreciation charge.

### **3.5 Start-up costs**

Costs associated with a start-up or commissioning period should be capitalised only where the asset is available for use but is incapable of operating at normal levels without such a start-up or commissioning period.

A distinction should be drawn between those costs incurred because an asset is incapable of operating at normal levels, and those costs incurred because demand has not yet built up. In the latter of these cases the costs would be expensed.

### **3.6 De minimis rule**

Where the total expenditure on a project is less than £3,000 it is Company policy that these costs will not be capitalised.

Exceptions to this rule are as follows:

- When the asset is less than £3,000, and it relates to an initial equipping or a major equipping exercise where the total cost is in excess of £3,000, this may be treated as capital.
- Where a project is made up of a large number of jobs which can vary in size, e.g. housing mains, road works diversions, all jobs of that type should be charged to capital expenditure.
- Specialist attachments or additions to vehicles or items of mobile plant which are purchased some time after the vehicles are to be treated as capital expenditure if they are individually more than £3,000 or relate to an initial or major equipping exercise where the total cost is in excess of £3,000.

- Purchase of new office furniture as part of a major re-equipping exercise which in total costs more than £3,000 will be treated as capital expenditure. The occasional replacement of desks, cabinets etc. will be charged to revenue expenditure when purchased.

## **4. Accounting for infrastructure assets**

### **4.1 Overview**

Expenditure on infrastructure assets relating to increases in capacity or enhancements of the network is treated as an addition and included at cost after deducting grants and contributions.

Capital and operating expenditure arising from each project in the investment programme must be identified based on the Regulatory Analysis categories defined in SAP.

The actual values ascribed to IRE and capital for each project are calculated automatically within SAP, as there is a one to one relationship between the Regulatory Analysis Codes and the Purpose Codes (which define the driver for the capital investment), ascribed to the project.

The automatic calculation of the actual values ascribed to revenue and capital for each project are based on the promoted purpose codes. There is a requirement for this data to be reviewed by Project Owners during the life of the project as defined in the Capital Investment Manual.

### **4.2 Apportionment of costs**

Each project is apportioned between the categories below and a percentage is calculated for each category. Costs associated with all but the first of these categories should be capitalised.

#### **4.2.1 Infrastructure renewal**

This is expenditure necessary to maintain or restore the original operating capability of the system in terms of its original capacity, qualitative performance and condition; i.e. expenditure on the fabric of infrastructure assets which does not lead to an extension to or enhancement of the system.

Infrastructure assets are depreciated and IRE spend is expensed to the Income Statement.

#### **4.2.2 Quality**

This category comprises expenditure to bring an infrastructure system capability up to a new quality standard imposed either internally or externally.

#### **4.2.3 Level of service**

This includes costs incurred to bring an infrastructure systems capacity or capability up to a new level of service standard imposed either internally or externally.

#### **4.2.4 Non-infrastructure**

This is expenditure on the creation or renewal (resulting in an extension of asset life), of non-infrastructure assets.

#### **4.2.5 Supply and demand balance**

These costs relate to growth from existing customers (determined by the difference between current and anticipated future consumption) and/or entirely new capacity for new customers.

#### **4.2.6 Unfunded**

These are costs that are incurred on self-financed projects that fall outside the scope of the Ofwat funding.

### **5. Depreciation**

Freehold land is not depreciated. Other assets are depreciated over their estimated economic lives, which are principally as follows:

- Buildings 30 - 80 years
- Fixed plant and equipment 20 - 40 years
- Vehicles, mobile plant and computers 2 - 15 years

Assets in the course of construction are not depreciated until commissioned.

### **6. Disposals and assets taken out of commission**

#### **6.1 Overview**

When an asset is disposed of, the book value of that asset should be written off. This is deducted from the net proceeds received to calculate the profit or loss on disposal.

#### **6.2 Costs incurred at the end of an asset's life**

Before the asset is disposed of, additional costs may be incurred to bring the asset into a saleable condition or to meet a contractual or legislative requirement to dismantle the asset and/or restore the site to its original condition.



### **6.2.1 Dismantling an asset or restoring a site**

IAS 16 requires a provision for the liability for dismantling the asset and/or restoring the site to be recognised when the asset is capitalised (if there is a constructive or legal obligation). This is included in the cost of the asset. Costs are then booked against this provision as they are incurred prior to the disposal.

The Company has a range of assets that were constructed prior to the implementation of IAS 16 and IAS 37. Consequently, no provision was established at inception for the future costs of dismantling or restoring the site. When this is the case the costs are recognised in the profit and loss account as they are incurred.

### **6.2.2 Costs to bring the asset into a saleable condition**

If costs are incurred bringing an asset into a saleable condition and there is a reasonable expectation that the costs will be recovered from the sale of the asset then these costs may be capitalised. Costs are posted to the relevant disposal code on the balance sheet.

If there is not a reasonable expectation that the costs will be recovered from the sale of the asset then these costs are expensed through the profit and loss account.

Activities that are undertaken bringing an asset into saleable condition often occur over an extensive period. A biannual review is performed to determine whether the same level of certainty exists regarding the realisation of these costs. If either market or non-market conditions suggest that recovery of these costs is no longer probable the costs are expensed to the profit and loss account immediately.

These conditions can be applied to the following examples:

- A company incurs costs in obtaining planning permission for the site prior to sale (with a view to enhancing the value of the land). These costs should be capitalised if there is a reasonable expectation the property will be sold at a profit.

If the company is unsuccessful in obtaining planning permission, and therefore a profit will not be made on sale, then the costs which had been previously capitalised should be written off.

- A company incurs marketing costs when disposing of an asset. Again these costs should only be capitalised if there is a reasonable expectation that they will be recovered through the sale of the asset.

If the company ceases to market the asset due to a change in market conditions but has the intention to use this information in future to recover costs through sale it is appropriate to continue to capitalise the costs. However, if it does not

expect to recover the costs they should be written off. If the company then incurs further marketing costs in later periods then these are considered separately.

### **6.2.3 Abandonment**

A number of options may be evaluated before the company decides how a capital scheme will be delivered. Costs will be incurred in evaluating each option. These costs may only be capitalised if they are directly attributable to assets which are finally constructed.

For example, if three options of delivering the same capital project are initially investigated, then the costs of determining which of these should be selected are all directly attributable to the final assets and should be capitalised.

However, if there are three possible projects which are evaluated to resolve a particular issue then only the costs of investigating the project which is pursued can be capitalised. The costs of investigating the other projects should be recognised in the profit and loss account. An example of this would be where a number of sites are considered for construction. The costs of investigating the site which is finally developed are capitalised and the other costs are expensed.