



Annual Performance Report Methodology

2020–21

from
**Southern
Water** 

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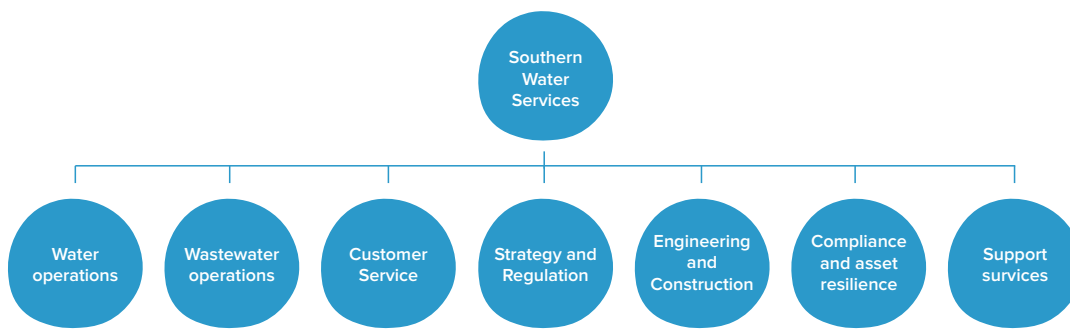
Introduction

This document sets out the methodology adopted by Southern Water Services for the production of the operating cost, revenue and fixed asset disclosure within the Annual Performance Report (APR), as required under RAG 3.12.

Background to the business

Southern Water is proud to supply drinking water to 2.5 million people and safely recycle the wastewater of more than 4.7 million people in Sussex, Kent, Hampshire and the Isle of Wight.

The organisational structure of the company for 2020–21 is shown in the diagram below.



Water operations

The water function is responsible for the abstraction, treatment and distribution of water to customers. The water network consists of 81 water treatment works and approximately 13,900 kilometres of distribution pipes.

Wastewater operations

The wastewater function is responsible for the collection of wastewater from customers and the highway and its transportation to wastewater treatment works (WTWs) and sludge treatment centres (STCs). Here the waste is removed and the water is then returned to the environment. The wastewater network consists of 367 WTWs, 16 STCs and approximately 39,800 kilometres of sewers.

Operations support

Within operations, a number of activities have been outsourced to onshore contractors. These include any significant plant repair activity, new distribution mains and network repairs as well as all sewer repair and maintenance work.

Within our scientific services team sample testing continues to be provided by contractors, with sample collection completed in house.

All tankering, skip and waste disposal activities involving transportation are carried out by a contractor as are a number of service contracts

for instruments and equipment maintenance. Property and ground maintenance activities are also managed in this way.

Customer service

The customer service team is responsible for handling any customer contact and all aspects of billing and cash collection. The function consists of a service centre (which aims to resolve customers' issues quickly and effectively), billing services (ensuring bills issued are accurate and on time) and field services (who install and read meters as well as other face-to-face activities, including vulnerable customer support).

A focused team operates across Customer Service, key internal stakeholders and our partner Capita to transform and simplify our service.

Meter installation and reading (onshore) and supporting customer written enquiries (offshore) are undertaken by external contractors.

South East Water (SEW) undertake the billing and collection activities on our behalf for customers who receive their water supply from SEW and for whom we provided the wastewater collection service. The bad debt risk associated with this activity is not transferred to the third party.

Capita is our main service partner and operates our assisted customer contact channels (voice and digital) as well as collections, back office and

print fulfilment activities. In addition they provide a number of supporting technologies that act as enablers to deliver the overall service.

Strategy and regulation

The strategy and regulation department develops our capital investment strategy

Engineering and construction

The engineering and construction department undertakes the design and delivery of our capital investment programme. It also provides connection services to developers.

Compliance and asset resilience

The compliance and asset resilience team seeks to improve our risk management, reporting processes and data integrity, as well as overseeing a programme of works to address issues arising from Drinking Water Inspectorate and Environment Agency investigations.

Support services

The support services of the business ensure that the other directorates can function successfully. These are explained in the general and support allocation section later in this document.

A number of activities within support services are undertaken by external contractors. Property and grounds maintenance is carried out onshore, while the HR helpdesk, purchase ledger and some finance activities, as well as numerous service contracts, are carried out offshore. IT is now largely onshore in house.

Cost movements from 2019–20

Details of the significant changes in costs from 2019–20 are described below:

Water

Operating expenditure for the water service decreased by £6.1 million to £106.8 million (2020: £112.9 million).

Power costs have risen above inflation due to tariff increases, leading to an increase of £1.2 million.

Following a successful appeal we received a rebate on our Cumulo Rates charges totalling £2.3 million.

A reduction in leak detection spend led to a decrease in renewals expenditure of £1.2 million

In order to prepare for the challenge of this five-year period, improve our services and reduce costs, we undertook a number of restructuring activities during 2019–20. These included transferring the majority of our customer services activities to Capita, closing our final salary pension scheme and reshaping a number of teams across the business. As a result, we incurred a number of one-off restructuring costs. These transformation activities resulted in a reduction in our ongoing operating costs for 2020–21 as a result of lower employee and pension costs. During the prior year we also incurred costs in relation to our business plan submission to Ofwat and our preparations for delivering our plans for this regulatory period. As a result our operating costs fell for this year.

Over the course of 2020–21 we have experienced a number of cost increases. The most notable of these are the impact of COVID-19 (in both facilitating remote working of staff and in water supply costs to meet the significant increase in customer demand for water) and Innovation Fund costs. The fund was introduced in 2020–21 by Ofwat to drive innovation across the water industry through a series of competitions to select projects to progress. We provided £0.7 million for water costs.

Wastewater

Operating expenditure for the wastewater service increased by £10.5 million to £207.8 million (2020: £197.3 million).

Power costs (including Income treated as negative expenditure) have risen above inflation due to tariff increases, resulting in an increase of £3.9 million from the prior year.

An increase in sewer repairs drove the £2.1 million increase in renewals expenditure.

Despite the savings outlined in Water above, there have been a number of increases in operating expenditure:

- Provisions for the innovation scheme total £2.0 million
- Costs associated with the impact of COVID-19 total £1.2 million
- Increased maintenance expenditure on our wastewater assets of £3.6 million to improve operation performance and reduce the risk of equipment failures
- An increase in insurance premium costs, together with higher losses, following a higher number of claims raised wastewater insurance costs by £1.0 million

Retail

Household retail operating expenditure has decreased by £11.6 million to £68.2 million (2020: £79.8 million). This is principally due to a reduction in debt management costs of £9.1 million to £5.1 million (2020: £14.2 million). This reduction is partly due to suspension of debt collection activity during the period of the first national COVID-19 lockdown, and partly due to the introduction of new debt collection processes.

The bad debt charge increased by £5.4 million to £34.8 million (2020 £29.4 million) as a result of assessment of the collectability of our outstanding debt in light of the anticipated impact of the pandemic on the economy and reflecting the fact that the likely recovery of debt that has reached the end of the recovery process has worsened.

Customer services costs have reduced by £4.6 million as 2020 included a one-off restructuring activity to transition customer services to an outsourced supplier.

Other operating expenditure has reduced by £2.1 million as a result of lower overhead allocation to the business unit following this outsourcing event. Meter reading costs have reduced by £0.2 million.

Allocation process

Systems and information

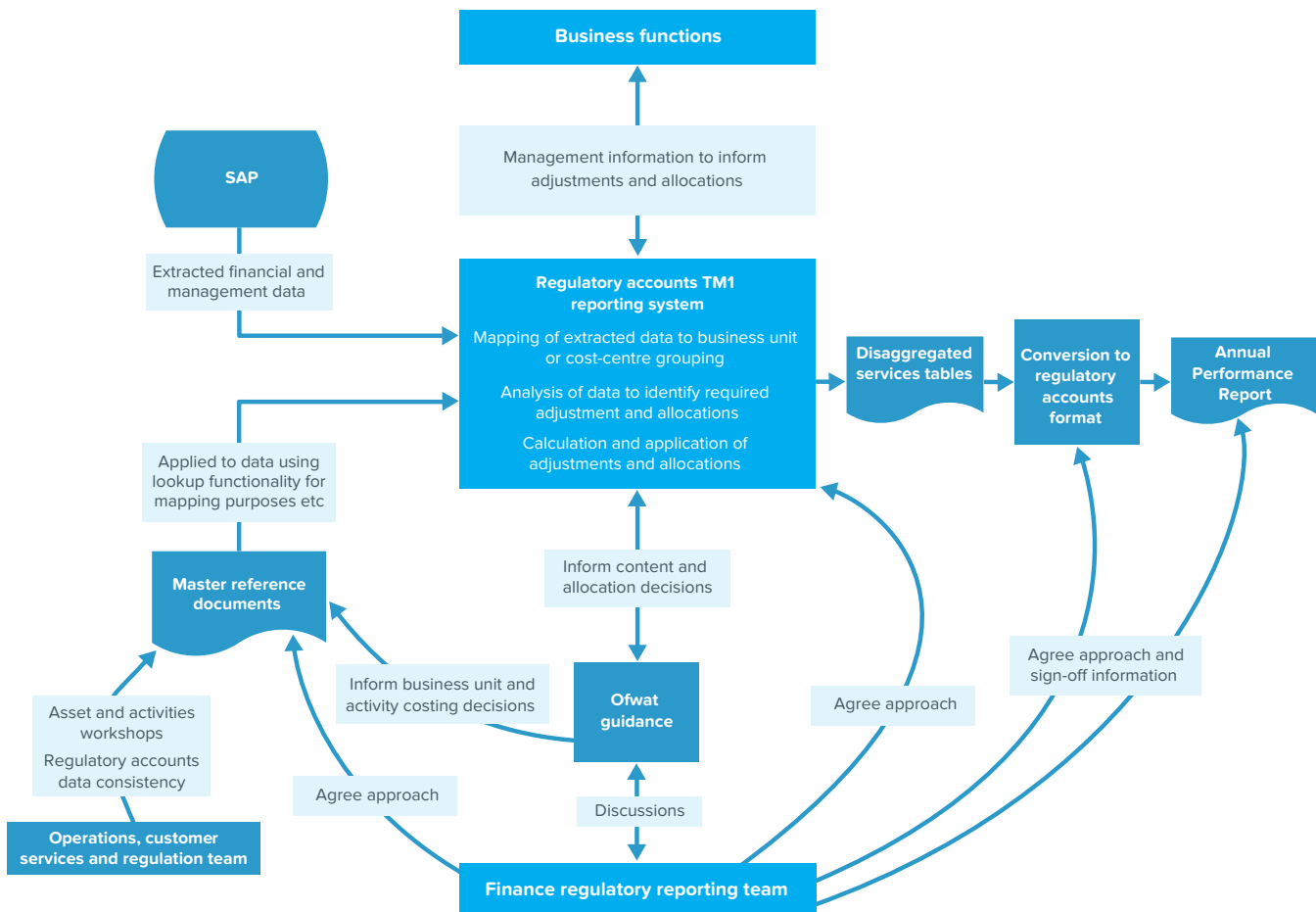
Financial and management information is extracted from the finance system, SAP. Operating costs are exported into our reporting system, which has been built to undertake the allocation in order to produce the accounting separation tables. Capital expenditure data is transferred into spreadsheets and an access database for the regulatory fixed asset analysis (described on page 15).

There were no changes to the underlying systems and sources of data in the year. The information relating to the non-appointed business, including an allocation of overhead costs, was produced in line with the guidance.

In line with the guidance for AMP7, and following our exit from the non-household retail market, all services to developers are classified within wholesale services for 2020-21.

Process and governance

The regulatory accounts are produced by the Finance team. The overall process for agreeing cost drivers and how specific costs are allocated across the different business units involves subject matter experts (SMEs) from the business and the regulation team. These allocations are agreed in accordance with the principles issued by our regulator, Ofwat, and reviewed annually to identify any changes or improvements that can be made. The final tables are reviewed and signed off by senior management before publication. An overview of the process is shown in the diagram below.



Cost allocation principles

Costs have been allocated following the six principles found in RAG 4.09 (detailed below):

Transparency – the attribution methods applied 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 should also be clearly explained to establish if they are fit for purpose.

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.

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.

No cross subsidy between price controls – there should be no transfer of costs between the price control units, in the setting of prices and preparing the accounts. This will ensure all revenue and related costs are aligned to the appropriate price control unit. As such, any transfer prices between price control units will be at market value, unless it relates to internal services, in which case cost will be used.

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

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.

Application of cost allocation principles

To ensure transparency, this methodology statement sets out the drivers and allocation methods used within our reporting process. Each of these is separately identifiable within the spreadsheets and databases used to produce the Annual Performance Report information required.

Wherever possible, costs relating to a specific business unit have been coded or subsequently directly attributed. Where the costs relate to activities that straddle business units, such as in the case of mobile teams who cover a particular geographic area or the costs of support functions, the relevant cost driver has been established and the most appropriate allocation method applied. These are described in the allocation methods section below.

Additional management information was obtained from relevant business functions where this was required for adjustment or allocation purposes. More detail is provided when explaining the allocation methods used.

The allocation methods we have used are kept as consistent as possible with the prior year. Any changes to the allocation methods used are detailed in this document.

The production of the regulatory accounting activity costing information has been overseen by a small team of senior managers from the finance, regulation, operations and customer service areas. In addition to agreeing the overall process and key mapping documents, the team reviewed the options for all the main allocations and approved the final methods selected, to ensure they are reasonable and comply with the Ofwat guidance and principles.

Allocation methods

The following are the main methods used to allocate water and sewerage service costs that were not able to be coded or directly attributed to a specific business unit. There have been no changes to last year's methodology.

Many of the allocations use Southern Waters' Full Time Equivalent staff numbers (FTE) in order to get a sufficient level of granularity when allocating to price control units and business units. This

FTE has been based on the year-end headcount. Given timesheets are not widely available, FTE has been regarded as the most appropriate. This allocations approach differs from that used in previous years where the proportion of direct costs was used for the majority of these allocations.

The table below shows the business units, and the principal costs directly attributable and allocated to them.

Business unit	Primary direct costs	Primary allocations
Abstraction licence	The licence from the Environment Agency	Other business activities
Raw water abstraction	The costs of surface water and underground sources and transporting the raw water to the water supply works	Mobile operators Other business activities Support services Water power split
Raw water transport	N/A	Other business activities
Raw water storage	The costs related to Eccles Lake	Other business activities
Water treatment	The costs of water supply works. These include chemicals, materials, contractors and power	Control centre Mobile operators Power Scientific services Support services Water power split
Treated water distribution	Water booster stations and water service reservoirs as well as labour and contractor expenses involving inspection, co-ordination and management, as well as repair and maintenance of the network	Highway liaison Insurance Mobile operators Scientific services Support services Water power split
Sewage collection	All sewer and pumping station costs, as well as discharge consents. These include all contractor costs to repair and maintain the network, chemicals and power	Developer services Mobile operators Power Property and grounds maintenance Support services
Sewage treatment (foul, surface water and highway drainage)	The costs of all pre-thickening WTWs are directly coded ahead of the sewage/sludge split (see page 9). These include discharge consents, chemicals, materials, contractors and power	Control centre Liquor treatment Mobile operators Operational contracts Property and grounds maintenance Scientific services Sewage/sludge split Support services
Liquor treatment	N/A	Liquor treatment
Sludge treatment	Sludge treatment centre costs such as chemicals, materials, contractors maintenance and repair	Insurance Mobile operators Operational contracts Power Sewage/sludge split for shared costs at co-located works Support services
Sludge transport	Tankering of costs from pre-thickening sites to those with sludge treatment capabilities	Other business activities
Sludge disposal	Transport of cake and granules to farm or landfill	Other business activities

A more detailed description of each allocation method is provided on the next page.

Mobile operational teams

Description

Certain operational and maintenance activities are carried out by employees who are not site-based, but instead form mobile teams. These mobile teams generally work specifically on water or wastewater assets and so are directly coded to the relevant price control. They do, however, work on a variety of different asset types, covering different business units across multiple locations in a geographical area. Therefore, their costs require allocation for business unit reporting.

Allocation method

Time spent on activities is electronically recorded by these mobile employees using hand-held devices and uploaded via the works management system into SAP. The time spent by each team on activities related to each business unit is collated and the cost allocated accordingly.

The costs allocated primarily relate to employment costs, but also include vehicles, tools, protective clothing and mobile phones.

Local authority rates

Description

Local authority rates refer to the business rates charges for the buildings at each wastewater site and the cumulo rates charges in respect of the water function.

Allocation method

The costs have been split differently between the business units depending on which service they belong to.

Cumulo rates have been split based upon historic gross modern equivalent asset value (GMEAV) for the relevant water sites. Each site type has been aligned to a business unit and the total value has then been used to apportion the charge.

Wastewater sites receive individual charges based on their rateable value (RV). This enables the costs to be allocated to specific business units based on the activities at a site. In general this is sewage treatment with an element at some sites being subsequently allocated to liquor treatment, as described later in this document.

We have a number of co-located sewage and sludge treatment sites. The RV associated with the sludge treatment assets has been identified in order to split the costs between sewage and sludge treatment.

Management and mechanical, electrical, instrumentation, controls and automation admin (MEICA)

Description

There are a number of technical operational teams providing support to the wholesale service, such as delivery and investigation engineers, workshops, technical support teams and their management.

Allocation method

There are a number of allocation methods, dependent on the nature of the activities performed by the team.

The costs associated with the delivery engineers have been allocated based on the plant repair jobs undertaken by contractors. Previously, this has been allocated in proportion to the direct cost incurred in each business unit.

The certification team collects sewage data and so this cost has been fully allocated to the sewage treatment business unit.

The ICA technical support team is allocated using the mobile round method detailed above.

Management costs have been apportioned out to each of the teams based on their percentage of total cost.

Operational support and control centre

Description

Operational support relates to the provision of management support to both water and wastewater wholesale services, including the systems, reporting, central purchasing and change teams. The control centre includes the security, quantity surveyor, duty manager and other out-of-hours teams.

Allocation method

Costs have been split based on FTE.

Sewage/sludge split

Description

Sewage arriving at wastewater treatment works (WTW) is treated and the water element returned to a watercourse. The sludge element is then transported to a sludge treatment centre (STC) for treatment. All STCs are co-located with WTWs, so sewage and sludge costs have to be separated and allocated to the relevant business unit.

Allocation method

These co-located sites have been classified into the following types:

- Indigenous cake
- Intermediate STC
- STC

The STCs themselves have their own cost centre, separate from the WTW, and these provide a direct split for some site-specific costs that are not detailed below. Indigenous cake and Intermediate STC sites are allocated 10% to sludge treatment, based on an estimate of activities on-site. All other sites are classified as pre-thickening, and no allocation to sludge treatment made.

Any tankering from WTWs to sludge treatment sites has been directly coded to sludge transport.

The majority of chemical expenditure is allocated to the sewage treatment business unit with the exception of costs relating to polyelectrolyte, antifoam and lime, which are allocated to sludge treatment.

As there is only a single electricity meter at each co-located site, the power costs have been split using the power ratings of the sewage and sludge assets on site.

Any ROC sales produced by Combined Heat and Power (CHP) units are included in sludge treatment as income treated as negative expenditure.

Any sludge tankered in from water supply works (WSWs) and treated at an STC has been allocated to water treatment, based on a sludge treatment unit cost rate.

Sewage collection split

Description

For reporting purposes we are required to split sewage collection costs into three business units: foul, surface water drainage and highway drainage. The wastewater from all three of these sources is received into the treatment works through one sewer system.

Allocation method

In order to derive an allocation method for these costs a model has been generated by experts in the business based on historic wastewater volumes. The model compares the amount of treated water distributed, with the amount of water received at the WTW. The volume of water discharged to the sewer by customers is generally estimated at 92.5% of input. Using certification data (detailing the volume of water arriving at the inlet of the works) we can use this to derive the surface water and highway drainage element.

A sample analysis of road and roof areas that run off into our sewers has led us to believe the split between surface water and highway drainage volumes is circa 50:50.

Further adjustments have been made to take account of costs such as jet-washing, private sewers and surface water pumping stations, which can be directly allocated.

Other business activities/strategy

Description

Other business costs relate to the costs of complying with our regulators, including the regulation team and any licences required.

Allocation method

The allocation between business units follows RAG 2.08 guidance, in which retail attracts 1/9th of the total cost with the remaining 8/9ths being split evenly between water and wastewater.

The remaining costs have been split between wholesale with 1/9th being apportioned to each historical business unit.

Third party costs

Description

The third-party costs are apportioned from the other lines of the table, and are mainly associated with an Esso facility in Hampshire and bulk supply agreements with South East Water in Kent.

Allocation method

The costs of the relevant sites are calculated and an element is allocated to third party costs based on water volumes. Any fire hydrant costs and charges for repair of damage to our assets by another party are also classified as third party costs, as per Appendix 1 of RAG 4.09.

Power

Description

All power costs are coded to the relevant site, however there are a number of sites where activities straddle more than one business unit and an allocation is required. Wastewater has already been discussed under the sewage/sludge split above.

Allocation method

With water service sites there could be a single meter abstracting the water, treating it, and then pumping it into the distribution network. The abstraction cost is calculated using pumping head data (previously reported in Table 12 of the June Return). The remaining charge is split between water treatment and treated water distribution based on the power ratings of assets based on site, with all high lift pumps classified as treated water distribution.

The carbon reduction commitment charge is allocated out proportionately, based on electricity and gas usage within the relevant business units.

The power costs relating to the sludge pipeline from Slowhill Copse pre-thickening site to Millbrook STC have been allocated to sludge transport.

Non-appointed

Description

Non-appointed activities are those the company engages in which are not within the scope of the regulated activity.

The principal activities are: land search, Homeserve insurance, letting and tankering.

Allocation method

Each non-appointed revenue stream has its own cost centre, which is excluded from the regulatory accounting calculations. There are a small number of non-appointed direct employees, and so therefore receive an allocation of any support services (e.g. Finance, HR) using an FTE allocation.

Calculations for the commercial and cess cost of tankering waste have been performed by business experts and appropriately transferred out of sewage and sludge treatment.

Support services

The table below breaks down the 2020–21 charge by support service.

Support service	Wholesale allocation (£m)	Retail allocation (£m)
Communications	0.5	0.3
Directors	5.7	0.5
Finance	2.9	0.3
HR	4.7	0.3
IT	20.1	2.3
Legal	1.9	0.1
Procurement	2.4	0.1

Description

The departments listed above provide support and management across all business units.

Allocation method

Each director was split based on their directorate's allocation (e.g. the CFO cost is allocated based on the finance team split). The CEO and non-executive directors were allocated based on the subsequent average split after all other teams had been allocated.

For the other teams detailed in the table above a list of employees was extracted from the SAP system. This was then reviewed with key management to identify the FTE split between wholesale, retail or support activities for each individual. Where individuals could easily be identified as solely performing within a business unit this was taken into account. For example, in finance this could be determined by the team or role an individual held for some members of the function, while in procurement and communications this was driven by the projects worked on.

Once the allocation to the price control units was completed, the costs were then further apportioned to business units based on the total Southern Water FTE.

Wholesale assets

Description

This relates to a number of staff who monitor and report on asset performance.

Allocation method

Any asset team-related costs that cannot be directly allocated have been split based on FTE.

Developer services

Description

Developer services deal with the administration and site inspections relating to any application to develop land for construction or where buildings require further amendments to the water supply.

Allocation method

In line with updated guidance all costs are now classified as Wholesale.

Due to the nature of the wholesale activity, the majority of these costs have been capitalised. The remaining costs have been split between business units based upon the applications made to developer services through the year.

Dispatchers

Description

The dispatchers send the mobile operational team employees out to the various jobs at the sites required. Their work can be split in to three types: schedulers, controllers and planners.

Allocation method

While no timesheets are kept, the teams are split between four categories: wastewater above and below ground and water above and below ground. These teams are allocated to the business units based on FTE.

Facilities

Description

The facilities team primarily looks after the Durrington and Falmer offices, but is also involved with those at Otterbourne and Chatham, as well as some operational sites.

Allocation method

The sites Otterbourne, Chatham, Horsham and Hastings relate solely to wholesale activities and therefore will have all costs allocated accordingly.

The floor schematics for both the Durrington and Falmer sites have been analysed to determine how much space is used by different departments. The space has been used to determine a percentage split between retail, wholesale and support services.

With the costs allocated to the services detailed above, these have then been further broken down based on the Southern Water FTE.

Highway liaison

Description

The Highway Liaison team deals with road closures required to maintain the water and sewerage network.

Allocation method

The work management system is used to determine how many jobs are related to the distribution network and how many to sewage collection.

Insurance

Description

Insurance costs can be broken down into both premiums and claims/losses.

Allocation method

Insurance premiums are comprised of a number of different items, with the most relevant allocation method used for each:

- Employee related (liability/motor/pension) – Allocated based on Southern Water FTE.
- Public, property and terrorism related – the asset values stated to determine the insurance charge. The assets are broken down by activity within the value schedule and so align to business units.
- Claims and losses – the claims history and the type of claim, whether it is due to works on the distribution network or flooding.
- Other (e.g. brokerage fees) – Pro-rated based on allocations detailed above

Liquor treatment

Description

Liquors are a by-product of the sludge treatment process which are then piped back to the inlet of the WTW for treatment.

Allocation method

A calculation has been performed involving the various sludge flows in a day. The concentration of the sludge in terms of biological and chemical oxygen demand (BOD/COD) milligrams per litre has been used to create a percentage for each site where liquor treatment occurs. This percentage is the higher of BOD and COD, although both come out at very similar values. This is then applied against the sewage treatment costs for that site to calculate the liquor treatment costs.

Operational contracts

Description

A number of asset service and maintenance contracts are held, principally for wastewater sites.

Allocation method

In order to allocate the monthly contract fee a breakdown of all contracts has been assessed with the budget owner. A split between water, sewage and sludge has been determined based on the level of activity each contract covers in each business unit. This split will then be applied to all costs identified arising from operational contracts in order to apportion all costs.

Property and grounds maintenance

Description

The maintenance of properties and grounds is managed by third parties. There are expected schedules of work available for these grounds.

Allocation method

The detailed plans for all planned and reactive maintenance jobs have been analysed on a site-by-site basis to determine where the work is operational or capital in nature. The costs for each activity performed on site have then been aligned to the relevant business unit on a similar basis to all other allocations (i.e. WTWs taken to sewage treatment).

The reactive work is extracted from SAP (where it has been directly coded) and attributed to the relevant business units.

Scientific services

Description

Scientific services involves the testing of water and wastewater from samples collected. The sampling is performed on various operational sites, developer sites and customer houses.

Allocation method

The allocation has been based on the total samples tested during the year. Each of the sampling activities has been allocated to a business unit. The total costs for scientific services have then been split based on this business unit analysis.

Transformation

Description

The transformation team co-ordinates and manages the change programme within the business.

Allocation method

Customer service has its own transformation team coded directly to Retail, so these costs are wholesale only. The allocation has then been based on the wholesale FTE, given that transformation cuts across the water and wastewater service.

Transport

Description

Transport is the costs of all vehicles in Southern Water. These costs are held within the individual budget in each department and as such are already directly allocated. However, the transport management team requires allocation.

Allocation method

The transport management team is allocated based on vehicle cost across the company.

Water efficiency

Description

Water efficiency is a team within strategy focused on helping households and schools to use less water by increasing water efficiency.

Allocation method

A split between the price control units retail and wholesale has been established for each of the teams' FTE based on a management estimate.

The activities conducted by the team have been systematically allocated based on management knowledge and judgement. Many can be directly attributed to the wholesale or retail functions (such as fitting households with water-saving products, which is a retail activity). If it is not possible to allocate the costs directly, for example school partnerships, a split based on a management estimate has been made between the services.

Wholesale costs have been split equally between raw water abstraction, treatment and distribution, with any efficiencies primarily impacting these business units.

Retail services

Allocations to retail cost lines

Costs relating to a specific retail cost types have been allocated directly to that category where possible. Where the costs span a number of different activities, a relevant cost driver has been established upon which the costs have then been allocated. Having disposed of our non-household retail business all costs sit within the household price control, save for some legacy doubtful debt.

Customer engagement costs		
Cost area	Summary of allocation to cost line	Method of allocation
Affordability	Customer services 100%	Nature of Cost
Billing Services	Customer services 98% Debt management 2%	Nature of work undertaken
Outsourced service partner	Customer services 90% Debt Management 10%	Nature of work undertaken
Transformation	Customer services 51% Debt management 25% Meter reading 24%	Nature of work undertaken
Strategy		
Billing and collections performance		
Household collections and recovery	Debt management 100%	Nature of cost
Litigation	Debt management 100%	Nature of cost
Metering	Meter reading 100%	Nature of work undertaken

Fixed assets

Process overview – fixed assets

In order to produce the regulatory fixed asset and capital expenditure information, financial and management information is extracted from the finance system, SAP, using a number of system reports. This information is saved as spreadsheets for analysis and reporting and is also imported into an access database for the regulatory fixed asset analysis.

All subsequent steps in the production of the regulatory tables are carried out offline using spreadsheet and database functionality. These information sources provide sufficient information to directly allocate costs to the business units and price controls within the regulatory tables. Assets are sorted by asset groups which define both the business unit and expenditure purpose in order to complete the regulatory tables.

Capital expenditure incurred during the year, disposal details and information on fully depreciated assets is extracted from the company's SAP accounting system. The additions, disposals and net book data are therefore consistent with those reported in the statutory accounts.

Process for producing table 2D (Historic cost analysis of fixed assets)

The base data for this table is consistent with the statutory accounts fixed assets valuations and depreciation charge. As required by RAG 1.09, interest, capitalised in the statutory accounts, is excluded from the extract from SAP for regulatory reporting. In addition to this we have separately identified intangible assets and removed the value of these to comply with the requirement of table 2D to only report tangible fixed asset information. Intangible Asset information is now included in Table 2O.

The majority of assets can be assigned directly to a specific price control. Where an asset is shared, for example a corporate asset, it is assigned to the price control of principal use. We have used our largest price control, wholesale wastewater, as our default for assigning corporate assets and retail household for any retail-only assets.

The full list of assets is extracted from SAP into a spreadsheet. This data includes all the historic information together with the movements in the year along with business unit information. Spreadsheet functionality is then used to produce the statutory and regulatory fixed asset information to ensure that there is consistency between the reporting.

Process for producing capital elements of table 2A (Segmental income statement)

The depreciation included within operating costs contains the depreciation charge analysed by price control from table 2D as described above. Recharges are then required for the shared assets allocated to the price control of principal use.

The costs which cannot be allocated to a single service are split into those that relate to wholesale only (not specifically water or wastewater), those that relate to retail only (not specifically household or non-household) and those of benefit to wholesale and retail.

The depreciation charge in the year attributable to wholesale-only assets is allocated between wholesale business units based on the wholesale headcount. This allocation uses the same data as that for allocating operating expenditure.

The depreciation charge in the year attributable to retail-only assets is allocated between household and non-household based on customer numbers and headcount.

The depreciation charge in the year attributable to wholesale and retail is made using headcount percentage that includes wholesale and retail staff. The resultant calculated recharge for retail is split into household and non-household based on customer numbers and headcount.

Process for producing capital elements of table 4D, 4E, 4J and 4K (Wholesale totex analysis)

The base data for additions is the same as that for the Statutory Accounts. Expenditure, including accruals, is extracted from SAP and listed by historic asset or scheme.

As part of our capital expenditure approval process, we maintain a database in which we assign the Quality, Base, Enhanced service levels and Growth (QBEG) purpose allocation for each scheme. When combined with the expenditure this provides the information required to complete tables 4D, 4E, 4J and 4K.

The allocation to QBEG is based on definitions provided in RAG 2.08 and RAG 4.09 and an analysis of the design of each scheme. From this the percentage, by category, is assigned to each scheme and stored in the database for application to the expenditure when it is incurred.

When a scheme is approved it is also analysed and assigned to the appropriate business unit(s). These business units are held against each scheme in SAP when the scheme is created. We have facility for a primary business unit and secondary units where a scheme has elements that fall into more than one business unit. Further

details of some of the specific assets in each business unit, and any changes made in the year, are given in the sections below.

The same process applies to the disposals.

Details of the nature of the assets in each business unit as well as some of the specific assets in each business unit are given below.

Process for producing capital elements of table 4L and 4M

The current year values for these tables employ the same source data as that used for table 4D, 4E, 4J and 4K (costs where third party contributions apply are net of the contribution). Reference number identifiers are added to the enhancement expenditure according to data definitions in Rag 4.09. Scheme costs are grouped by purpose and business unit in order to populate the current year section of the table.

The analysis produced for the current year section of the tables is combined with the previous year data containing costs on assets under construction not previously reported in the cumulative purpose tables. A scheme by scheme review is undertaken to determine those schemes substantively complete and those still under construction. Substantively complete schemes are reported in the cumulative section of the table and those still to complete are carried forward for future year reporting.

Water service

Abstraction licence

The water strategy manager confirmed that most costs associated with the negotiation and agreement of abstraction licences are treated as operational. There are some minor value assets in this business unit for significant licence variations and resource studies.

Raw water abstraction

All Southern Water's impounding reservoirs with abstraction licences associated with them are recorded as raw water abstraction. Bank-side storage assets are allocated to raw water storage.

Expenditure incurred during the year on assets associated with river intakes, borehole sources and impounding reservoirs is allocated to this business unit. The business unit remains unchanged from the previous year.

The impounding reservoirs included in raw water abstraction are:

Reservoir	Volume (MI)
Bewl Water	31,000
Darwell	4,730
Powdermill	1,060
Weir Wood	5,600
Testwood Lakes	400
Sandown	1
River Arun	75

Also included here is the raw water transfer main between the impounding reservoirs Bewl Water and Darwell.

Abstraction point	Discharge	Length (km)
Bewl Water (twin main)	Darwell	2 x 16.8

Raw water transport and raw water storage

Raw water storage assets are bankside storage. Eccles Lake has been classified as raw water storage on the grounds that no direct abstraction licence applies.

Bankside Storage	Volume (MI)
Eccles Lake	545

Raw water transport assets are mains from a reservoir to a treatment facility.

Water treatment

This business unit contains our water treatment works and remains unchanged from the previous year. Assets included are as per RAG 4.09 guidelines.

Expenditure incurred in the year is allocated based upon the specific details of schemes.

Treated water distribution

This business unit essentially remains unchanged.

Sewerage service

Sewerage collection

In order to split the sewerage collection costs and assets between foul, surface water drainage and highway drainage we have undertaken some analysis, described below, of the volumes of wastewater received at treatment works.

A model has been generated by business subject matter experts, using historic wastewater volumes, in order to compare the amount of treated water distributed, against the amount of water taken in as sewage. In general the percentage of treated water returning to the sewer is estimated to be

92.5% of the volume supplied. Therefore, 92.5% of the water distributed has been deducted from the amount of wastewater received into sewage treatment works. This, as well as other adjustments for occurrences such as leakage and pipe filtration, is then used to derive the volume of surface water and highway drainage. The model has then been applied to this year's costs in order to get the current year split and the historic fair value of our sewerage network.

The sewerage network is allocated to the contributing components for both historic assets and additions in the year as shown in the table below:

Sewer type	Percentage
Foul	70%
Surface	15%
Highway	15%

The sewerage network consists of approximately 23,000 kilometres of gravity sewers, rising mains and tunnels; their approximate lengths are shown in the table below:

Description	Length (km)
Gravity sewers	21,500
Rising main	1,500
Tunnels	48

The business unit includes the following significant tunnel assets:

Description	Volume (MI)
Fort Cumberland Road Eastney	40
Coombs Hastings	52
Portobello Brighton	147

Sewage treatment and disposal

This business unit contains our wastewater treatment works and remains unchanged from the previous year. Expenditure for the year has been allocated based on scheme-specific information.

This business unit includes sludge holding bays and thickening plant on sites not co-located with STCs.

Liquor treatment

Applying the principle of assets being recorded in the business unit of principal use, most of the assets applicable to this business unit are recorded under sewage treatment.

Table 8C line 17 – annualised cost of Capital Assets to treat liquors. The proportion of cost for Secondary Treatment has been applied to each of the Treatment works replacement value. It is assumed that liquor returns are at the start of the

secondary process, as little in the way of solids to settle will be present. Asset life is assumed at 30 years and a SL method of depreciation to arrive at an annualised cost. The annualised cost is then subjected to the BOD/Ammonia / volume proportion calculation per the Ofwat recommended methodology..

Sludge treatment

This business unit contains our sludge treatment centres and remains unchanged from the previous year. Expenditure incurred in the year is allocated based upon specifics of schemes.

Sludge holding bays and thickening plant at co-located sites are recorded in this business unit.

Sludge transport

This business unit contains a small number of sludge pipeline assets and remains unchanged from the previous year. Any expenditure for the year has been allocated based on scheme-specific information.

Sludge disposal

There are no assets in this business unit.

Management and general

For 2020–21, the management and general depreciation cost with shared benefit amounted to £21 million out of a total of £30 million. These have been assigned to the wastewater treatment business unit as the unit of principal use. Recharges to these other business units are reflected in Table 2A of the Annual Performance Report.

Retail

Retail assets largely consist of major IT systems for customer billing and telephony.

Asset records

Detailed information about the company's physical assets is held in two major corporate systems. One keeps details of our above-ground assets and the other about our below-ground assets. These systems are used primarily to schedule maintenance or replacement. Neither system holds information about the cost or value of each described asset.

Historic cost information and depreciation calculations for statutory accounting purposes are held in the company's finance system (SAP). This system holds information about schemes completed in the past and collects current expenditure information. Schemes are not to be confused with physical assets and any one scheme can affect more than one asset or only a part of an asset. Historic depreciation is calculated in the system on a straight-line basis. This data is used as the basis for the fixed asset information shown in the Annual Performance Report.

Revenue reporting

Unmeasured revenue

Unmeasured household and non-household revenue comprises customers on both rateable value charges and assessed charges. This revenue has been split into the relevant price controls. For the majority of household revenue this has been taken directly from our SAP ISU billing system, but for customers in the South East Water region this has been generated from reports provided by South East Water. Post market reform non-household billing information is no longer held in SAP ISU and therefore this information is sourced from CMOS.

The majority of data used in the production of revenues is at a level which allows for the identification of revenue type (retail, wholesale water and wholesale wastewater) and service type (water-only, wastewater-only or water and wastewater) to be determined directly. Where this is not possible, revenue has been allocated based on the proportions of the directly attributed revenues.

In order to further allocate water revenues across water resources and water network+, and wastewater revenues across wastewater network+ and bioresources we have applied a split using the relative proportions of allowed revenues for the year in question, as adjusted for ODIs and after deducting forecast Grants and Contributions (G&C).

Measured revenue

Measured revenue has been split into the relevant price controls based, where possible, on the rate categories of actual billing from our SAP ISU billing system for household customers and CMOS for non-household customers. Where this is not possible assumptions have been made as described above for our unmeasured customers.

In addition, measured revenue contains an estimate for unbilled revenue which is generated from the billing system but includes management adjustments. The unbilled revenue is analysed using the following information:

1. The unbilled revenue report from the system details revenue split by price control, on the same basis as the billing system, and so this is split in the same way as our billing. South East Water provide an accrual for customers in the South East Water region, this is added to the Southern Water accrual. Similarly, non-household revenue is accrued from data in CMOS and added to the Southern Water and South East Water accrual to form total accrued revenues.
2. Where the value of an accrual adjustment has not been sourced directly from the billing system, the allocation of price controls has been based on the same ratio as actual billing in 2020–21.

In order to further allocate water revenues into across water resources and water network plus, and wastewater revenues across wastewater network plus and bioresources we have applied a split using the relative proportions of allowed revenues for the year in question, as adjusted for ODIs and after deducting forecast Grants & Contributions (G&C).

Other revenue

All other revenue is sourced directly from our SAP BAS billing system and maps directly to a price control unit based on its coding. Those revenue types with a separate retail element are identified directly from this billing system and have been allocated appropriately, as per reporting requirements in RAG 4.09. These include trade effluent and developer services administration fees.

Price Control	Summary of allocation to cost line	Method of allocation
Water revenue	Water resources 14.29% Water network+ 85.71%	Relative proportions of allowed revenues for the year
Wastewater revenues	Wastewater network+ 88.73% Bioresources 11.27%	Relative proportions of allowed revenues for the year
Grants and Contributions and other third party		Nature of the activity

Changes in 2020–21

Revenues are no longer shown by customer type and include a further allocation across water and wastewater price controls into water resources and water network+, and wastewater network+ and bioresources respectively.



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