Dŵr Cymru
Welsh Water

Accounting Methodology Statement 2022/23

dwrcymru.com

Accounting Methodology Statement 2022/23

Section	Page
1: Overview	
1.1: Company structure	2
1.2: Systems	2
1.3: Structure underlying core customer services activity	3
1.4: Capitalisation policy	4
1.5: Additional analysis or adjustments the company has made to data extracted from systems	5
1.6: Changes to the company's systems year-on-year	6
2: Price control segments	
2.1: How the company has applied the principles set out in RAG 2.08 and RAG 4.11	7
2.2: Method used to calculate revenues over each price control	8
2.3: Cost drivers used for allocating costs between price control segments	8
2.4: Changes in the methodology compared to previous year	8
2.5: Significant changes in costs at price control level compared to previous year	9
2.6: Significant changes in a particular cost type between price control segments	17
2.7: Percentage split of power costs and other operating expenditure	17
2.8: Disaggregation of power costs when consumed at sites with more than one price control unit	17
2.9: Management and general costs split across price control units	17
2.10: Planned improvements for future years	18
2.11: Principal use rules applied	19
2.12: Recharges to non-appointed activities	20
3: Wholesale upstream services	
3.1: Disaggregation of operating costs across upstream services	20
3.2: Disaggregation of power costs across upstream services	20
3.3: Bulk supply imports	20
3.4: Significant changes in costs at upstream service level compared to previous year	20
3.5: Significant movement in a particular cost type between upstream service level compared to previous year	21
3.6: Completion of tables 4D and 4E	21
3.7: Methodology for the derivation of sludge liquor treatment costs	21

Section	Page
Appendices	
Appendix 1: Disaggregation of Wholesale activities – upstream services	22
Appendix 2: Retail: Wholesale cost allocation	31
Appendix 3: Wholesale cost allocation	33
Appendix 4: General and support allocation	36
Appendix 5: Retail: household/non-household split	40
Appendix 6: Retail (household): measured/unmeasured split	43

1: Overview

Each company must produce and publish an accounting methodology statement alongside its Annual Performance Report (APR). The purpose of this statement is to enable Ofwat and other stakeholders to understand the systems, processes and allocation methodologies used to populate the totex and operating cost analysis tables in Parts 2 and 4 to 11 of the Dŵr Cymru Cyfyngedig (DCC) 2022/23 APR.

This report has been prepared in accordance with the following Regulatory Accounting Guidelines (RAGs) and Information Notices:

- RAG 1.09: Principles and guidelines for regulatory reporting under the 'new UK GAAP' regime;
- RAG 2.08: Guideline for classification of costs across the price controls;
- RAG 2.09: Guideline for classification of costs across the price controls;
- RAG 3.14: Guidelines for the format and disclosures for the APR;
- RAG 4.11: Guideline for the table definitions in the APR;
- RAG 5.07: Guideline for transfer pricing in the water and sewerage sectors
- Information Notice 23/03: Expectations for monopoly company annual performance reporting 2022-23

1.1: Company structure

DCC is a 'not-for-profit' company which has been wholly owned by Glas Cymru since 2001. Glas Cymru does not have shareholders, and any financial surpluses are reinvested in the business for the benefit of customers. DCC is the group's principal trading company. Its principal activity is the supply of water and treatment and disposal of wastewater under the instrument of Appointment made by the Secretary of State for Wales under the Water Act 1989.

The group purchased two companies in 2017/18, Welsh Water Organic Energy Ltd and Welsh Water Organic Energy (Cardiff) Ltd. Welsh Water Organic Energy (Cardiff) Ltd operates a waste recycling plant generating energy which is sold to DCC for use at its co-located waste water treatment works in Cardiff. Power is charged at commercially negotiated arm's length prices and therefore adheres to the principles set out in RAG 5.07.

In March 2019 a new group company, Welsh Water Organic Waste Ltd, started trading, offering trade effluent disposal facilities to new business customers through existing DCC assets. Trade effluent charges to this company are levied by DCC at published rates. Other cost recharges follow the principles set out in RAG 5.07.

There are no other associated companies that trade with DCC.

Structure

DCC is split into two reporting areas: Chief Executive Officer and Chief Financial Officer which are the responsibility of Executive Directors of the Company. The Chief Executive Officer is responsible for operations which comprises the Water, Wastewater and Retail services, headed by a Managing Director of Water, Wastewater and Retail respectively (none of whom is an Executive Director of the company).

The finance team provides dedicated support to the operational teams and support functions. Monthly management accounts are prepared which highlight variances against budget; the finance department and the budget holder work together to identify reasons for the movement. Following this, at the department's team meeting, cost performance against budget is reviewed.

At year end, the finance team, working with the operational and support teams, extracts income and cost data from SAP and formats this into the regulatory reporting table structures for each area of the business, primarily using Excel spreadsheets. These spreadsheets are consolidated and their outputs are used to populate the APR. The processes used to generate the regulatory reporting allocations are reviewed each year to reflect any organisational and regulatory changes.

There are governance review processes to ensure that all the information within the regulatory financial statements is consistent with the latest regulatory guidance before the financial statements are published. Further details can be found in our Data Assurance Plan which is published at the same time as the APR and can be found at www.dwrcymru.com .There is no change to this process from last year.

1.2: Systems

DCC uses SAP as an integrated financial and business management system. SAP information is either downloaded into spreadsheets or extracted using Business Warehouse. All operating costs are recorded in SAP against an account code and a cost centre and are aligned to regulatory business units and their relevant regulatory cost group, as shown below. Each time a new account or cost centre is created within the corporate finance system, it is linked to the appropriate business unit or cost type with reference to the latest RAGs.

- Power
- Power income/income treated as negative expenditure
- EA service charge
- Bulk supply
- Employment cost

- Hired and bought-in services
- Materials and consumables
- Other direct costs
- Doubtful debts
- General and support costs
- Rates

Further adjustments are made for third party and non-appointed costs following a full analysis of costs and with reference to guidance in the income categorisation table in RAG 4.11

For the population of the APR a cost centre hierarchy has been created in SAP which is different from the internal management accounting structure (which is based on budget holder accountability). This means that directly coded Water, Wastewater and Retail operational costs can largely be assigned to the appropriate regulatory unit and cost headings. Where costs cannot be directly allocated, allocations are used which are summarised in the following appendices:

- Appendix 2 - Retail: Wholesale cost allocation
- Appendix 3 - Wholesale cost allocation
- Appendix 4 - General and support allocation
- Appendix 5 - Retail: household/non-household split
- Appendix 6 - Retail (household): measured/unmeasured split

We use the RapidXtra billing system which was designed specifically for the water sector and is currently used by a number of UK water companies. We are continuing to improve our debt collection system, Tallyman, which interfaces with RapidXtra, and will continue to develop new strategies into AMP7. In 2018/19 we upgraded our SAP operational customer platform by introducing C4C, the cloud version of SAP. In 2019/20 we leveraged the functionality in previous upgrades to our website to deliver an improved online interface to customers. This development continued into 2020/21 when we launched a full 'My account' online service to customers, improving the user interface and automation of underlying system data. In early 2020 we also implemented a major upgrade to the contact centre telephony platform, enabling all of our front-line agents to work remotely (in response to the pandemic).

Power costs include all energy costs (including climate change levy costs). Electricity costs are allocated to assets using DCC's energy management system in SAP, which receives electronic bills (EDI's) from the energy suppliers and, by reference to the Meter Point Administration Number (MPAN), charges the cost to an asset's cost centre.

Where an MPAN provides electricity for more than one price control unit, a percentage split is applied that is specific to the associated MPAN. The percentage split is determined by estimating the electricity cost per price control unit by undertaking site audits. These involve cataloguing all the electrical equipment on site. The running hours and loading of each piece of equipment are estimated/determined to calculate annual electricity consumption and this is allocated to regulatory cost accounting areas. The equipment's electricity use as a proportion of the total site's electricity consumption is used to establish the cost centre splits. The Power costs category also include fuel costs, which are allocated to the cost centres where the asset which consumes the fuel is located. For assets that support more than one price control segment, the costs are allocated based on the most appropriate cost centres based on Ofwat's hierarchy of cost drivers.

We also have SAP work management systems (including SAP Work Manager). The systems recognise the asset upon which we are working, its geographical location and the type of work being performed. Based on this information the system charges costs to predetermined revenue or capital cost collectors.

1.3: Structure underlying core customer services activity

The structure is as follows:

- Income collection and billing services are provided by the Retail service (RETL). This part of the business is independent of the Wholesale activities and has its own Managing Director, support staff and a unique SAP company code. Support service costs such as HR, IT and finance which are provided at group level are allocated across price controls based on the most appropriate cost driver (as shown in appendix 4);
- DCC also has outsourced arrangements with local authorities and water companies for billing and collection which are all reported within RETL. The risk of collection is transferred to the local authority/water company and a commission is paid to them to reflect this arrangement; and
- The company does not issue bills addressed to 'the occupier'. Our policy is to write off debt when it has been established that a debt is not collectable. A debt is regarded as not being collectable when one of the following conditions has been satisfied:
    - the debtor has been declared bankrupt;
    - the debtor cannot be traced;
    - the debtor has died without an estate;
    - all reasonable legal remedies have been exhausted and two collection agencies have failed to recover the debt; or
    - the debt is too small to pursue beyond specified recovery action.

All debt that has gone through the full recovery process listed above is held in a ring-fenced account pending write-off. Write-offs are scheduled as part of a routine procedure. However, initiatives continue to be taken in respect of debt with a low likelihood of recovery to review the probability of collection and debts are currently only written off post completion of these initiatives. Generally when debt is deemed irrecoverable, the debt will have been fully provided for in the bad debt provision. As a result the timing of the write-off has little impact on the overall charge for bad debts in any year – and the level of write-offs throughout the year is therefore not monitored in isolation but as a component of the overall movement in collections when considering the level of bad debt provision required.

- DCC operates an operational call centre which is part of RETL. Calls which require a visit to a customer are passed to schedulers who make the appropriate arrangements for an initial visit.
    - For calls relating to the water network the costs within Retail also include inspectors' time if after investigation it is found that the fault was not a network issue. For those that did relate to a network issue the costs of the customer liaison team (who call the customer advising that the issue has been resolved) are treated as Retail costs; and
    - For calls relating to the Wastewater network, a team is despatched so that any network issue can be resolved as soon as possible. If, when attending the site, they find that this is not a network issue then the call is aborted and these costs are included as Retail. For those that do relate to a network issue the costs of the customer liaison team (who call the customer advising that the issue has been resolved) are treated as Retail costs;
- DCC has inspectors who attend customer premises in relation to metering billing queries. The costs included in Retail relate to visits made in relation to the following activities resulting from a customer's request:
    - final meter reading;
    - check meter reading;
    - customer billing meter query; and
    - meter-reading work - abortive; determine property supplied by meter and site meeting to show location of meter.

  The latter two relate to billing and customer–facing activities hence they are treated as Retail costs;
- Support costs: all of RETL direct costs are allocated to Retail, along with a proportion of support costs which are incurred by DCC. DCC support costs are allocated to Retail based on various costs drivers, as shown in appendix 4; and
- Other business activities include Ofwat fees, Water UK costs and regulation department costs; 1/9th of these costs has been allocated to Retail in line with the RAG guidance. The split between household and non-household is based on customer numbers.

This is the same approach as for the 2021/22 report year, with no changes made for 2022/23.

1.4: Capitalisation policy

Costs charged to capital follow the company's accounting policy. This states that capital expenditure includes the following categories of cost:

- Property, plant and equipment;
- Infrastructure assets (i.e. mains and sewers, impounding and pumped raw water storage reservoirs, dams, sludge pipelines and sea outfalls); and
- Other assets (including properties, over ground operational structure and equipment, and fixtures and fittings).

The cost of property, plant and equipment additions includes a provision for a contractual "pain/gain" share. Forecast final expenditure associated with completed, or substantially completed, Capital Alliance-delivered projects is compared to either the business plan or unit cost database-derived value, with significant differences being provided for in accrued "pain" or "gain"-share calculations at half-year and year-end.

For accounting purposes, the Water and Wastewater system is segmented into components representing categories of assets with similar characteristics and useful lives. In accordance with RD 06/02, all leakage monitoring and reporting costs are treated as operating expenditure. The cost of maintaining the level of leakage is also classified as such, unless it falls clearly into other areas e.g. replacement of capital items. The costs of leak detection and repairs which contribute to achieving the economic level of leakage are treated as infrastructure renewals expenditure and are expensed in the income statement. Any leakage spend incurred which reduces the level of leakage is included as capital additions.

Additions are recorded at cost, and reflect the purchase price together with any expenditure directly attributable to bringing the asset into use, including directly-attributable internal costs. Costs incurred on development projects are recognised as intangible assets when the relevant recognition criteria are met.

Capitalisation of salaries

The cost of employees working directly on capital projects is calculated using an hourly recharge rate which is reviewed by management annually. Each set of rates is broken down by bands based on average salary and overhead costs.

Individuals can charge time to capital projects either by submitting timesheets or by recording time on handheld devices ("toughbooks"). The planned maintenance and Switch systems, as well as Field IT are integrated in SAP and they record labour, materials and bought-in services costs at asset level. Job-types determine the classification of work as operating or capital expenditure using predefined settlement tables held within SAP.

Capitalisation of overheads

DCC's internal costs incurred in supporting the capital programme are capitalised as overheads using an appropriate recovery rate (normally a percentage of annual salary costs). The percentage recovery rate is generated from a review undertaken to identify costs which demonstrate a clear link to the capital programme. The assumptions and the recovery rate used are reviewed annually by the finance team.

1.5: Additional analyses or adjustments that the company has made to data extracted from systems

Fixed assets overview

Additions

The principal data source for the fixed asset tables is the capital expenditure regulatory reporting database which is extracted from SAP. This information source provides sufficient information to allocate most costs directly to the accounting separation business units.

The regulatory reporting and accounting separation databases hold scheme information analysed by asset type. For the purpose of completing the regulatory accounts, they also identify whether the assets are 'infrastructure' or 'non-infrastructure' and categorise Retail assets separately.

- Infrastructure assets include the following: underground systems of mains and sewers, impounding and pumped raw storage reservoirs, dams, sludge pipelines and sea outfalls. Some information about infrastructure assets (general mapping and updating of network records) is also regarded as an infrastructure asset;
- Operational assets include the following: intake works, pumping stations, treatment works, boreholes, operational land, offices, depots, workshops, residential properties directly connected with Water and Sewerage services. Land which is not currently in operational use but is expected to come in to use in the foreseeable future is included, as is plant, machinery and telemetry inherent in the nature of the works. Also included are non-operational plant, non-operational machinery, vehicles, surplus land and all assets not previously listed; and
- Retail operational assets include the following: buildings and offices, fixtures and fittings, IT systems and other operational assets directly involved in providing the Retail service.

New expenditure incurred during the year is added to the database and is analysed as follows: costs are recorded at scheme level and are allocated to business type based on an analysis of the scheme design and target costs. This is the same principle for allocation of capital expenditure to business units that has been used in previous years. The aim is to map expenditure incurred to either a one-to-one relationship, or on a proportional allocation basis as directed in the RAGs.

On the assumption that the Quality, Base, Enhancement and Growth (QBEG) analysis continues to be a regulatory requirement, the asset categories are further extended to allow for those four descriptions of asset purpose. For the purpose of our systems' data capture, the above translates to an asset classification list of eight-digit codes.

Example: 0946Q50S

The first two digits denote asset type and follow the requirements of the previous June Return table 32 line item:

- 09 = Sewage treatment works

The third and fourth digit represents business activity areas as shown below:

Code		
Infra	**Non-infra**	**Description - Water**
11	12	Abstraction licence
21	22	Raw water abstraction
31	32	Raw water transport
41	42	Raw water storage
-	52	Water treatment
61	62	Trunk treated distribution
71	72	Local treated distribution
81	82	Management and general

Code Infra	Infra	Description - Waste
15	16	Foul
25	26	Surface water drainage
35	36	Highway drainage
-	46	Sewage treatment and disposal
55	56	Sludge transport
-	66	Sludge treatment
-	76	Liquor treatment
85	86	Sludge disposal
95	96	Management and general

The fifth digit denotes the purpose:

- M = Base/maintenance
- E = Enhanced service level
- N = New development
- G = Growth
- Q = Quality

The sixth to eighth digits denote purpose-type drivers:

- 50S = NEP – Reduction in sanitary parameters.

The database queries use the data contained in the classification code to sort and group the year-end figures to allow grouping by asset type, business activity and QBEG classification as necessary. Some 95% of expenditure in the year was suitable for this classification method. The remaining 5% is for items of IT and management and general costs that cannot be directly allocated to a specific business unit. This expenditure has been proportionally allocated across the business activities using FTE numbers as the cost driver.

The IRE programme is included in the above costs and analysed across price controls accordingly. DCC's (IFRS-based) policy is to expense IRE to the income statement unless there is an enhancement element to the cost; these costs are adjusted out of capital and included within other operating expenditure, renewals expensed in year (infrastructure).

Fixed asset register

The company maintains its fixed asset register in the SAP accounting system. The assets are split by service type using evaluation class. For assets under construction, this is allocated to price controls using the capital expenditure regulatory reporting database. Management and general assets are split using FTE numbers as a cost driver.

The majority of the fixed asset and depreciation data in the APR use the IFRS basis of reporting, adjusted for the reversal of borrowing cost capitalisation (IAS 23) as required by the RAGs.

Asset lives

ChandlerKBS provide an asset life assessment service to DCC. Individual assessments are carried out at project level based on detailed cost records, and DCC's accounting policy to assign appropriate asset lives. DCC also applies asset life models generated from a ChandlerKBS database where appropriate. ChandlerKBS also produce asset life assessments for several other water and sewerage companies. Using this knowledge and experience, the assessments are checked and reviewed to ensure that they remain consistent within the water industry.

1.6: Changes to the company's systems year-on-year

During the last year we have had very limited system change as we have been very busy moving all of our On Premise Datacentre systems to the Azure Cloud. As of end of June 2023 we have moved 98% of our Applications to the Cloud either using Software as a Service providers or have moved to Infrastructure as a Service using the Azure Cloud. These changes have allowed us to reduce our Physical IT environments by 40% whilst adding higher levels of Security control.

There have been no other changes to the DCC's systems.

2: Price control segments

2.1: How the company has applied the principles set out in RAG 2.08 and RAG 4.11

RAG 4.11 details the guidelines for the table definitions in the APR.

RAG 2.08 covers the principles and cost drivers to be used to attribute and allocate capital and operating costs in the APR between:

- Appointed and non-appointed activities within the appointee (APR parts 1 and 2);
- Price control units (APR part 2, 4 to 11);
- Household and non-household Retail services (APR parts 2); and

We have applied the principles and guidance as set out in these RAGs to prepare the APR.
RAG 2.08 states that the cost allocation principles need to comply with the following general principles:

- Transparency**:** the cost attribution and allocation methods applied to allocate costs within the APR need to be transparent. The costs and revenues apportioned to each service and business unit should be clearly identifiable, with clear explanation of cost and revenue drivers:

- As part of DCC's overall accounting separation cost centre group, alternative cost centre structures have been created in SAP in a format that facilitates the completion of the APR data tables. These contain specific cost centre groups for the business activities. A number of 'work management systems' result in greater accuracy of cost allocation and reduced reliance on manual allocations across activities. Asset-related cost centres and most operational support staff can be attributed directly to a business activity. Non-operational staff costs are allocated directly to activities where possible. Where this has not been possible cost drivers have been used to apportion departmental costs in line with Ofwat's hierarchy of cost drivers.

- Each business area prepares its costs in the accounting separation format and forwards to the Regulatory Accountant for consolidation. The consolidated spreadsheet details the costs for each business area which can be traced back to SAP. The costs drivers used are shown in the following appendices:
  - Retail: Wholesale cost allocation *Appendix 2*
  - Wholesale cost allocation *Appendix 3*
  - General and support allocation *Appendix 4*
  - Retail: household/non-household split *Appendix 5*

  Transparency is provided by the production and publication of this methodology statement.

- 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.
  - In respect of costs that are directly attributable to a business activity, costs are allocated to these activities; and
  - Where any costs are not directly attributable, the most appropriate cost drivers are used relating to that specific cost.

- 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.
  - Transport activities are recorded in a standalone SAP company code where costs are recharged to price control units using predetermined rates for the assets based on asset value deterioration and maintenance costs. We do not have any other internal transfer charges. Any general and support costs that are allocated over price control units are based on cost drivers shown in appendix 4;
  - Rental charges for the use of our operational appointed assets are calculated on an arms length basis in line with RAG 5.07:
  - Power from other group companies is purchased at market value in line with RAG 5.07;
  - Cost allocated to non appointed sludge trading business uses a model created to allocate costs appropriately; and
  - Cost allocation is made on an objective basis without any intention of discrimination.

- 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 controls 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.
  - There is a separate SAP company code for Retail activities. This means that the majority of Retail costs can be directly attributed;
  - Head office costs such as human resources, IT and finance activities require allocation across all business areas. The allocation methods used are shown in appendix 4;
  - All costs allocated such as power are based on cost and not on market price; and
  - For water used at sewage works, the appropriate tariff has been used by Water to recharge to Wastewater.

- Objectivity: the cost and revenue allocation criteria need to be objective and should not intend to benefit any price control unit or appointed/non-appointed business. Cost allocation must be fair, reasonable and consistent.
  - The allocation methods that we have used are not intended to benefit any business unit or service and have been applied objectively.

- Consistency: costs should be allocated consistently from year to year to ensure meaningful comparison of information across the sector and over time; regulatory incentives from comparative analysis apply fairly across companies and enable monitoring of companies' performance against price control assumptions. Changes to the attribution methodology from year to year should be clearly justified and documented in the Accounting Methodology Statement.
  - We aim to be as consistent as possible. However, if we identify an opportunity to use another cost driver that is more appropriate then we will use this and explain our rationale for the change in this Methodology Statement; and
  - Any changes in treatment of costs included in the RAGs will affect the consistency of our treatment of costs. These will also be disclosed in this Methodology Statement.

- Principal use: where possible, capital expenditure and associated depreciation should be directly attributed to one of the price control units. Where this is not possible as the asset is used by more than one service, it should be reported in the service of principal use with recharges made to the other services that use the asset reflecting the proportion of the asset used by the other services.
    - Assets that are used by more than one service such as IT costs are attributed to the service of principal use. Recharges made to the other services are based on depreciation.

2.2: Method used to calculate revenues over each price control unit

Revenue is split between each price control based on each tariff component. Each bill is broken down between each tariff and the revenue is split accordingly to the price control based on the tariff split.

2.3: Cost drivers used for allocating costs between price controls

- Where costs relate explicitly to a specific business unit, the expenditure has been coded directly to the business unit that consumed the good or the service. Where direct coding is not possible, an appropriate allocation has been made using specific cost drivers;
- The Retail/Wholesale cost allocation table (appendix 2) provides an explanation of how operating costs have been allocated to Retail for each line of the table;
- Wholesale cost allocation is included in appendix 3;
- General and support costs allocation is included in appendix 4; and
- The Retail household/non-household table (appendix 5) provides detail of cost drivers used to allocate costs.

Why these allocations are considered appropriate

- We consider that the allocations are appropriate as, in most cases, we have used the cost drivers mentioned in the RAGs: in certain cases other costs drivers have been used, i.e. where we believe that these are more appropriate;
- A high proportion of employment costs is allocated directly to business units, however some costs are allocated using assessment cycles. In the majority of cases these are cycled to the same business unit, however there is a small amount that is allocated to other business activities. These cost assessment cycles are monitored on a regular basis, and a thorough review takes place every six months;
- We have discussed the RAGs with the business to ensure that we are adhering to the guidance with regard to network customer enquiries and complaints. For the split between household and non-household we have used job types or customer numbers;
- We have confirmed that the customer numbers that we are using in the household/non-household split is in line with the definition set out in the RAGs;
- Where management judgement has been used we have examined the rationale to satisfy ourselves that it is reasonable; and
- In allocating the bad debt charge (households 96.5%: non households 3.5%) we have used the customer specific aged debt profile and the bad debt write-offs. This approach is in line with previous years.

How the company's management are satisfied that they are reasonable

- Most cost drivers are applied on a consistent basis, however where there has been a change this is discussed with the relevant department to ensure that it is reasonable. Any changes are disclosed in the Methodology Statement.
- Managers are rewarded on their performance and this includes financial performance. Monthly reports are produced by the finance team which they and the budget manager examine closely to highlight any cost variances and to identify any costs that should not be included in that area. This will include extraneous cost assessment cycles. Any costs that should not be included within a particular area will be transferred out. Therefore, due to this rigorous approach, management is satisfied that the costs are being reported in the correct area.

Assurance process

All non financial data reported in the APR is subject to a structured three-tier assurance process:

- In the first line of assurance management has accountability for identifying risks and managing these by developing and maintaining sound processes, systems and controls (in the normal course of operations);
- In the second line of assurance the Regulation and Finance teams have accountability for providing the framework and governance for regulatory reporting; and
- The third line of assurance provides independent audit and assurance activity through our Business Assurance team, who both review the assurance framework and provide risk based assurance on individual elements. The information contained within this document is also reviewed by our independent external auditor or the Technical Auditor.

The auditors' findings are reported to the Dŵr Cymru Executive team, the Audit Committee and the Board of Directors, each of which reviews and approves documents prior to their publication.

2.4: Changes in the methodology compared to previous year

There has been no change to the methodology.

2.5: Significant changes in costs at price control level compared to previous year

Totex analysis - Wholesale Water and Wastewater (Table 2B)

Totex (including cash items) for Wholesale activities is £140m (23%) higher than last year; higher net operating expenditure (£87m) and net capital expenditure (£53m).

Wholesale Water: Totex including cash items is £95m (30%) higher than last year; increases in Water Resources (£22m) and Water Network+ (£73m). The increase relates to higher net capex spend (£41m), and net opex costs (£54m).

Wholesale Wastewater: Totex including cash items is £45m (16%) higher than last year; £38m relates to increases in Wastewater+ and £7m in Bioresources. The increase relates to higher net capex spend (£12m), and net opex costs (£33m).

Movements and explanations are shown in the tables overleaf.

Changes compared to last year: Wholesale

(For further details see appendix 1)

	Movements (£m)				Movements (%)		
	Water resources	**Wholesale water network+**	**Total**		**Water resources**	**Wholesale water network+**	**Total**
	£m	**£m**	**£m**		**%**	**%**	**%**
Base Operating expenditure							
Power	1.386	3.387	**4.773**		15%	11%	**12%**
	The increase amounting to £4.8m compared to last year, reflects the increase in wholesale price. In addition consumption increased by 10% due to severe weather events; the freeze thaw event accounted for an additional 4GWh in January.						
Income treated as negative expenditure	1.428	0.282	**1.710**		-17%	-8%	**-14%**
	Lower water resources income of £1.4m is associated with ESPRIT hydro generation income. Decrease in Water network+ relates to operational issues at one of the treatment work.						
Abstraction charges/discharge consents	0.013	(0.025)	**(0.012)**		0%	21%	**0%**
	Increase in NRW abstraction charges.						
Bulk supply	0.024	0.180	**0.204**		21%	21%	**21%**
	The increase in water network+ relate to increased power and chemical costs.						
Other operating expenditure – renewals expensed in year (infra)	(0.363)	8.215	**7.852**		-36%	22%	**20%**
	Water network+ has increased as a result of increased activity on network ancillaries , leakage and trunk mains.						
Other operating expenditure	5.151	29.344	**34.495**		57%	40%	**42%**
	Overall other operating costs are £34m higher than last year; atypical cost movement relating to one off pension service charge, compensation claims for freeze thaw event and cost of living payment account for £27m of this increase; £4m water resources and £23m water network+. The remaining increase in water resources of £1m is due to dry weather pumping costs as well as dam safety inspection fees. The remaining increase in water network+ of £6m relate to increased chemical costs driven by market volatility (£5.8m), outsourced contracts relating to minor works (£3.6m) and tankering costs as a result of the prolonged dry weather (£1.9m) which is offset by reduction in employment costs following capitalisation as a result of increased capital projects (£3.3m)						
Local authority and cumulo rates	1.444	(1.591)	**(0.147)**		183%	-10%	**-1%**
	Overall cumulo rates has decreased by 1%, although within price controls the charge allocated to water resources has increased by £1.4m with a subsequent reduction in water network+. The reason for this is that a new MEAV model has been created which we have used to apportion the cumulo costs over the price controls.						
Total base operating expenditure	9.083	39.792	**48.875**		41%	26%	**28%**

	Movements (£m)		Movements (%)

Changes compared to last year: Wholesale

(For further details see appendix 1)

	Water resources	Wholesale water network+	Total		Water resources	Wholesale water network+	Total
	£m	£m	£m		%	%	%
Other operating expenditure							
Enhancement operating expenditure	-	-	-		-	-	-
	There is no movement in the year as £0.2m is reported as enhanced opex which is the same value as last year. This relates to improvement to taste and odour and addressing raw water deterioration.						
Developer services operating expenditure	-	13.084	**13.084**		-	103%	**103%**
	This relates to the increase in the non price control diversions (NRSWA) of £8.4m mainly due to the Head of the Valley schemes together with S185 diversion cost increase of £4.1m and new connections £0.6m.						
Total operating expenditure excluding third party services	9.083	52.876	**61.959**		41%	32%	**33%**
Third party services	(0.149)	1.395	**1.246**		-4%	80%	**22%**
	Water resources movements relate to non-potable decreases of £0.2m . The Network+ increase relates to an increase in power in non potable water supplies as well as increase in rechargeable costs.						
Total operating expenditure	8.934	54.271	**63.205**		35%	32%	**33%**
Grants and contributions	-	9.128	**9.128**		-	128%	**128%**
	Water network+ increase relates to s185 diversion increase of £2.5m, other contributions (in price control) £2.4m, NRSWA diversions of £4.6m which is offset by lower connection income of £0.5m.						
Total operating expenditure after grants and contribution	8.934	45.143	**54.077**		35%	28%	**29%**

	Movements (£m)		Movements (%)

Changes compared to last year: Wholesale

(For further details see appendix 1)

	Water resources	Wholesale water network+	Total		Water resources	Wholesale water network+	Total
	£m	£m	£m		%	%	%
Capital expenditure							
Base capital expenditure	3.793	20.578	**24.371**		40%	29%	**30%**
	The increase in water resource costs amounting to £3.8m relates to our continued impounding reservoir programme. The increase in water network+ relates to increase in water treatment works of £7.5m and treated water distribution of £15m. The increase in water treatment costs relate mainly to Ancillaries and maintenance work and for treated water distribution the above ground expenditure account for £7m of the increase which include increased customer meters (£2m), bulk meters (£1m), Service reservoirs and pumping stations (£3m) . The remaining increase relates to enhanced infrastructure expenditure relating to network ancillaries and trunk mains.						
Enhancement capital expenditure	3.120	3.560	**6.680**		12%	13%	**12%**
	Further detail is available in the commentary for table 4L which can be found in the Annual Performance report 2022-23 parts 4 to 11. Water resources enhancement schemes have increased by £3.1m relating to lower impounding reservoir scheme costs within our Dam Safety programme as some schemes have come to a close which is offset by increased spends on our visitor centre at Lisvane and Llanishen (£7.8m) .						
Developer services expenditure	(0.025)	2.229	**2.204**		-100%	24%	**24%**
	The increase relates to increased activity on requisitioned mains.						
Total gross capital expenditure (excluding third party)	6.888	26.367	**33.255**		19%	25%	**23%**
Third party services	1.477	0.021	**1.498**		61%	60%	**61%**
	The cost movements relate mainly to the s20 operating agreements in water resources which are higher than last year.						
Total gross capital expenditure	8.365	26.388	**34.753**		22%	25%	**24%**
Grants and contributions - capital expenditure	(4.483)	(1.478)	**(5.961)**		-69%	-22%	**-45%**
	The decrease in Water Resource mainly relates to income received from the NRW for work carried out on impounding reservoirs under the s20 operating agreement . The reduction in Network+ reflects lower connection charge income £1m reported in capex and £0.8m lower requisition mains income.						
Net totex	21.782	73.009	**94.791**		38%	28%	**30%**
Cash expenditure							
Pension deficit recovery payments	-	-	**-**		-	-	**-**
	There were no payments in the current or prior year.						
Totex including cash items	21.782	73.009	**94.791**		38%	28%	**30%**

	Movements (£m)		Movements (%)

Changes compared to last year: Wholesale

(For further details see appendix 1)

	Wastewater network+	Bioresources	Total		Wastewater network+	Bioresources	Total
	£m	£m	£m		%	%	%
Base Operating expenditure							
Power	4.975	(0.441)	**4.534**		13%	-42%	**12%**
	£5m cost increase YOY. Average wholesale prices have increased by 8%. Additionally, consumption recorded 10% higher than prior year due to severe weather events, the freeze thaw event accounted for an additional 4GWh in January, having the greatest impact on pumping stations and drying of sludge. £0.3m increase relates to other fuel costs partly driven by price and partly driven by consumption. Continuous improvement activity has improved the consumption at treatment works by upgrading Bioresources is benefiting from increased rates of self sufficiency.						
Income treated as negative expenditure	(0.093)	2.029	**1.936**		15%	-21%	**-19%**
	Aeration efficiency improvements at Cardiff WWTW and Nash reducing consumption by circa 2GWh in sewage treatment but were offset by a 15% increase in import charges. In bioresources reactive engine breakdowns, long lead times for electrical spares reduced generation, particularly at Cardiff and Afan, resulting in a YoY reduction of 8.4% in volumes.						
Abstraction charges/discharge consents	(0.016)	(0.001)	**(0.017)**		0%	-3%	**0%**
	No material change from last year.						
Other operating expenditure – renewals expensed in year (infra)	1.674	0.000	**1.674**		8%	-	**8%**
	The increase in the year reflects increased activity in reactive maintenance in sewage collection						
Other operating expenditure	16.746	4.779	**21.525**		28%	22%	**27%**
	Overall other operating is £22m higher than last year; atypical cost movement relating to one off pension service charge, PSC claim and cost of living payment account for £11m of this increase; £9m wastewater resources network+ and £2m bioresource+. The remaining increase in wastewater network+ (£8m) relates to additional chemical costs driven by market constraints resulting in significant price increases for key operational chemicals including Polymers (+70%), used for the separation of suspended solids (£3.5m) The usage of chemicals has also risen by around 30%, to meet compliance requirements as waste entering the system was more concentrated during the drought periods. Sewerage contractor costs have risen by £2.0m driven by market rate pressures and tankering activity to protect compliance and measures of success. Employee costs net of capitalisation have increased by 9% (£3m) incremental pay awards driving a 12% increase in gross employee costs have been offset in part by the 17.2% increase in capitalisation due to the increase in capital expenditure in the year						
Local authority and Cumulo rates	0.439	0.068	**0.507**		6%	12%	**6%**
	No material change from last year.						
Total base operating expenditure	23.725	6.434	**30.159**		18%	49%	**21%**

Changes compared to last year: Wholesale

(For further details see appendix 1)

	Movements (£m)				Movements (%)		
	Wastewater network+	Bioresources	Total		Wastewater network+	Bioresources	Total
	£m	£m	£m		%	%	%
Other operating expenditure							
Enhancement operating expenditure	(0.156)	0.000	**(0.156)**		-14%	-	-14%
	These costs mainly relate to enhanced opex for phosphorous removal schemes amounting to £1.1m.						
Developer services operating expenditure	2.115	0.000	**2.115**		73%	-	**73%**
	This increase relates to increased NRSWA diversion costs of £2.2m						
Total operating expenditure excluding third party services	25.684	6.434	**32.118**		19%	49%	**22%**
Third party services	(0.659)	0.000	**(0.659)**		-45%	-	**-45%**
	The decrease in costs relate to lower rechargeable works (£0.2m) , bad debt charge (£0.2m) and Build over sewer costs (£0.2m)						
Total operating expenditure	25.025	6.434	**31.459**		18%	49%	**21%**
Grants and contributions	(1.849)	0.000	**(1.849)**		-39%	-	**-39%**
	Last year 1.8m was received relating to work carried out on a rising main which was included within other contributions (price control) in table 2E..						
Total operating expenditure after grants and contribution	26.874	6.434	**33.308**		20%	49%	**23%**

	Movements (£m)		Movements (%)

Changes compared to last year: Wholesale

(For further details see appendix 1)

	Wastewater network+	Bioresources	Total		Wastewater network+	Bioresources	Total
	£m	£m	£m		%	%	%
Capital expenditure							
Base capital expenditure	(3.379)	(2.461)	**(5.840)**		-5%	-19%	**-7%**
	The decrease in network+ mainly relates to sewage collection where the capex spend is £4m lower and relates to reduced spend on Event Duration monitoring schemes (£1m) partly because in 2023 these schemes are being reported as enhancements in line with the FD. In addition there have been lower activity on inline pumping station costs (£2.5m). The decrease in expenditure for bioresources mainly relates to the completion of some large schemes last year - Centrifuge schemes (£0.9m), Advanced Digestion schemes at Cog Moors and Queensferry (£2m)and Afan degrit scheme £0.6m which has been offset by smaller schemes incurring costs in the year for some Centrifuge, dryer and sludge schemes.						
Enhancement capital expenditure	15.471	3.070	**18.541**		33%	717%	**39%**
	Further details on the costs relating to the enhancement schemes can be found in the 4M commentary in the Annual Performance Report part 4 to 11. Waste water network+ increases relate mainly to the increased activity in the P removal schemes and increase in event duration monitoring costs for sewage collection costs. Bioresources increase of £3m include costs for several sludge schemes , such as Queensferry £1.1m, Magor SPS £1.1mm , Cardiff and Afan AD plants (£1.1m).						
Developer services expenditure	4.780	-	**4.780**		90%	-	**90%**
	Increased requisition schemes (£5.2m) and other price controlled activity (£0.6m) is offset by lower infrastructure network reinforcements (1m)						
Total gross capital expenditure (excluding third party)	16.872	0.609	**17.481**		13%	4%	**13%**
Third party services	-	-	**0.000**		-	-	**-**
	This movement in value is immaterial						
Total gross capital expenditure	16.872	0.609	**17.481**		13%	4%	**13%**
Grants and contributions - capital expenditure	5.720	-	**5.720**		136%	-	**136%**
	The increase in income from the previous year relates to increase for receipts for on site work of £5.6m.						
Net totex	38.026	7.043	**45.069**		26%	-	**16%**
Cash expenditure							
Pension deficit recovery payments	-	-	**-**		-	-	**-**
	There were no payments in the current or prior year.						
Totex including cash items	38.026	7.043	**45.069**		15%	26%	**16%**

Changes compared to last year: Operating cost analysis - Retail (Table 2C)

Total operating costs for Retail activities are £15.3m (26%) higher than last year; increase of 26% household and 20% non-household.

	Movements (£m)				Movements (%)		
Operating expenditure	**Household**	**Non-household**	**Total**		**Household**	**Non-household**	**Total**
	£m	**£m**	**£m**		**%**	**%**	**%**
Customer services	1.95	0.33	**2.28**		15%	18%	**16%**
	Total customer service costs increased by 16% driven by inflationary pressure on postage costs, increased headcount and returns to pre Covid levels of network customer enquiries generating additional operational work.						
Debt management	(0.61)	(0.01)	**(0.62)**		(11%)	(1%)	**(10%)**
	Debt management costs have decreased by 10% attributed to savings on successfully repatriating customers previously managed by local authorities and social landlords offset by an increase in costs following higher late stage recovery activity as we return to pre Covid operations.						
Doubtful debts	4.87	0.18	**5.05**		26%	27%	**26%**
	Total doubtful debt costs have increased by 26% with the main contributor being an increase in revenue following a 4% rise in the tariff basket. There was an increase in the underlying doubtful debt charge of £1.7m. We have also seen a change in the timing of collections, which has resulted in a £1.1m increase in charge. The balance of the movement reflects the release of a Covid related provision in the previous year which reduced the charge in the accounts.						
Meter reading	0.18	0.06	**0.24**		10%	12%	**10%**
	Meter reading costs have increased by 10% driven by inflationary pressures and a review of a more appropriate unit cost allocation.						
Services to developers	-	(0.07)	**(0.07)**		-	(14%)	**(14%)**
	No material increases from last year.						
Other operating expenditure	8.17	0.59	**8.76**		(99%)	(77%)	**(97%)**
	Other operating expenditure has increased by 97% of which the majority relate to atypical pension recovery costs. Other notable movements include the reclassification of software costs (SaaS) previously recognised as CAPEX, payments to employees in response to the cost of living crisis and a reallocation of human resources costs using a more appropriate cost driver.						
Total operating expenditure	14.56	1.08	15.64		31%	22%	**30%**
Depreciation - tangible	0.14	0.03	0.17		53%	125%	**58%**
	The increase is a result of updating our methodology for the allocation of principle use back to depreciation						
Depreciation – intangible	(0.52)	(0.04)	(0.56)		(12%)	(7%)	(13%)
	The decrease is a result of updating our methodology for the allocation of principle use back to depreciation						
Total operating costs	14.23	1.11	**15.34**		26%	20%	**26%**
Debt written off	(6.88)	(0.12)	**(7.00)**		(27%)	(11%)	**(26%)**
	£7m decrease in total write offs as a result of significantly lower actual write offs in year. The HH/NH write-off split for actual and accounting write offs has remained consistent with last year. The allocation of total write off between HH and NHH is based upon actual write-offs per internal data records.						

Appendix 1

Disaggregation of Wholesale activities – upstream services

2.6: Significant movement in a particular cost type between price control segments

We have changed the basis of splitting out the cumulo rates between price controls . The split is still based on an MEAV valuation , but we are now using the model that has been created for DCC. As a result water resources have increased by £1.4m with water network costs reduced by £1.4m.
The difference in % allocations across the price controls is shown below :

MEAV	Water Resources	Water network
Revised splits based on new MEAV model	19%	81%
Previous split used	11%	89%

There have been no other movements of cost types between price control segments.

2.7: Percentage split of power costs and other operating expenditure

- The percentage allocation split of power costs between directly coded and indirectly coded (allocated based on consumption) is as follows:

Power	Water Resources	Water network	Wastewater network	Bioresources
Directly coded	84%	55%	52%	65%
Indirectly coded	16%	45%	48%	35%
	100%	100%	100%	100%
Savings from power generation	-	-	-	100%

The percentage allocation split of other operating expenditure between directly and indirectly coded excluding renewals expensed in the year is as follows:

Other operating expenditure - excluding renewals	Water Resources	Water network	Wastewater network	Bioresources	Retail
Directly coded	46%	59%	61%	70%	63%
Indirectly coded	54%	41%	39%	30%	37%
	100%	100%	100%	100%	100%

The allocation split of other operating expenditure after including renewals expenditure in year (infrastructure) is as follows:

Other operating expenditure - excluding renewals	Water Resources	Water network	Wastewater network	Bioresources	Retail
Directly coded	49%	70%	70%	70%	63%
Indirectly coded	51%	30%	30%	30%	37%
	100%	100%	100%	100%	100%

The % splits between direct and indirect for have changed compared to last year as a result of the pension service charge of £30m which is regarded as indirect – these costs have been apportioned based on the Defined benefit members at the time of the scheme closure as reported in the PR19 tables.

2.8: Disaggregation of power costs when consumed at sites with more than one price control segment.

This is covered in section 1.2 above

2.9: Management and general costs split across price control segments

Capital expenditure: Management and general costs for those that cannot be directly allocated are allocated across price control segments using FTE as the cost driver. The cost splits are as follows:

Capital expenditure - management and general	Water Resources	Water network+	Wastewater network+	Bio resources	Retail	Total	% split
Allocated by:	£m	£m	£m	£m	£m	£m	%
FTE	1.1	10.7	8.8	2.3	0.8	23.7	92%
Direct					2.0	2.0	8%
Total	1.1	10.7	8.8	2.3	2.8	25.7	100%

Appendix 1

Disaggregation of Wholesale activities – upstream services

Capital expenditure - management and general	Water Resources	Water network+	Wastewater network+	Biores ources	Retail	Total
Split:						
FTE	100%	100%	100%	100%	29%	92%
Direct	0%	0%	0%	0%	71%	8%
Total	5%	41%	25%	8%	21%	100%

Operating expenditure: Management and general costs (including other business activities) for those that cannot be directly allocated are allocated across price control segments using cost drivers as reported in appendix 4.

Operating expenditure-General and support and other business activity costs	Water Resources	Water network+	Wastewater network+	Bio-resources	Retail	Non-appointed	Total	% split
Allocated by:	£m	£m	£m	£m	£m	£m	£m	%
Allocated using cost drivers [1]	7.8	35.8	24.0	6.3	13.0	4.6	91.4	86%
Directly allocated	0.3	1.0	1.2	0.4	8.7	0.0	11.6	11%
Other Business Activities	0.4	1.3	0.7	0.7	0.4	0.0	3.5	3%
total	8.5	38.1	25.9	7.4	22.1	4.6	106.6	100%

[1] Cost drivers used are shown in appendix 4.

	Water Resources	Water network+	Wastewater network+	Bio-resources	Retail	Non-appointed	Total
Split:							
Allocated using cost drivers	92%	94%	93%	85%	59%	100%	86%
Directly allocated	4%	3%	5%	5%	39%	0%	11%
Other Business Activities	5%	4%	3%	10%	2%	0%	3%
	100%	35%	100%	100%	100%	100%	100%

2.10: Planned improvements for future years

Planned improvements for future years (Retail)

In 2022/23 the following capabilities were delivered resulting in improved customer service and a reduction in underlying costs:

- Successfully awarded BSI accreditation
- Completed the repatriation of circa 36,000 customers on previously outsourced agreements.
- Implemented natural language using interactive voice response as well as identification and verification systems thereby reducing average handling time.
- Enhanced our MyAccount portal and increased customer take up with the introduction of auto enrol and logged in forms.
- Improved automation rates with the introduction of queueing functionality so that we can pend requests whilst Rapid is offline.
- Completed inbound SMS with our contractor Morrisons to help reduce time associated with job bookings.
- Achieved the European Contact Centre Silver award winner for our target operating model/Role progression.
- Onboarded new debt collection agency providers.
- Improved meter sequencing through our meters in wrong jobs initiative supporting efficiencies.
- Upgraded our Debt Management system.
- Implementation of speech analytics functionality to support the quality assessment of inbound contact and service provided.

In 2023/24 we will focus on delivering the following planned improvements:

- Implementation of the whitemail/email solution adding to the consolidation of social media, inbound SMS and voice into Genesys portal.
- Completed another interactive voice response exercise to improve % pass rates.
- Introduction of open banking functionality.
- Implementation of dual billing functionality to support elements of our metering strategy.
- Reduction and automation of our unstructured emails
- Further improvements to our automation tools
- Introduction of additional payment offerings such as Global Pay and Apple Pay
- Process to better support our management of Landlords

Appendix 1

Disaggregation of Wholesale activities – upstream services

- Discovery and development of 'Welsh Water' app
- Implementation of NHH Portal to support and increase our MyAccount uptake and offering for commercial customers.
- Upgrade of our website infrastructure
- Commencement of the procurement activity to support the introduction of a new debt management system.
- Key database upgrade of our billing system
- Procurement exercise to support introduction of new knowledge base and web chat.

Planned improvements for future years (Wholesale)

Planned improvements for Wholesale are:

- Over the past 18 months DCC have moved all of its non-Software as a Service IT systems, onto Microsoft Azure Infrastructure as a Service platform. This will allow DCC by July 2023 to close its 2 legacy Data Centres, whilst further allowing DCC to reduce its IT footprint by circa 30%. Having DCC IT assets in the Microsoft Azure cloud, should further allow us to quickly recover from a Cyber Incident, should it fall foul to one in the future;
- At the start of 2023, DCC participated in the NATO Cyber Marvel exercise, along with over 30 other Government, Defence and National Security Cyber teams. The exercises were based around Operational Technology Cyber attacks and we are pleased to say that a DCC Combined IT, Cyber and OT team came a respectable 3rd, with less than 1% separating the top 3 teams;
- Over the coming 12 months ITS will be focussing on Data Cleansing of the SAP system, in readiness for a move to S4-Hana early in 2025, whilst the team will be completing a major upgrade of our corporate web site along with starting to look at the replacement of the Tallyman Debt Management system;
- Continued focus on minimising the amount of energy used to deliver compliance and customer service objectives, whilst increasing levels of self-generated energy wherever feasible and economic to do so;
- Continued enhancement of an asset-specific, risk-based maintenance strategy to improve performance, reducing costs by moving from a reactive way of working by increasing levels of preventative maintenance plus a more considered approach to strategic spares availability.
- Retendering of third-party contracts where applicable to ensure access to the latest technologies and working practices at competitive rates;
- Continued advancements in the latest "SMART" operational technology and predictive data analytics to improve controls and preventative modelling to minimise incidents; and
- Ensuring lessons learnt from Covid-19 in relation to remote working are exploited fully to keep operating costs of offices and travel expenses low.

2.11: Principal use rules applied

Principal use applies where an asset is used by more than one service: it should be reported in the service of principal use with recharges made to other services that use the asset, reflecting the proportion of usage by those other services. In 2022/23 we have applied the principal use rule as follows:

- £8.5m of capex spend in the year has been reported in the service of principal use and relates to IT and other 'management and general' items.
- Recharges made to the other services are reported in table 4J and 4K and is included in other operating expenditure. This recharge is based on the depreciation on these assets with no financing adjustment. The amount recharged in the year amounts to £8.7m (2022: £11.4m).

Principal use recharge	**Water Resources**	**Water network+**	**Wastewater network+**	**Bioresources**	**Retail**	**Total**
	£m	£m	£m	£m	£m	£m
Recharges from	(1.0)	(1.4)	(7.5)	(2.1)	(0.5)	(12.5)
Recharges to	-	12.1	0.4	-	-	12.5
Net impact	(1.0)	10.7	(7.1)	(2.1)	(0.5)	-

- The recharges made to other services use FTE numbers as the cost driver as the assets are "management and general" in nature. The split between household and non-household has been based on customer numbers; and
- For tables 2B (Totex analysis Wholesale), 2C (Operating cost Retail), 4D (Totex Water), 4E (Totex Wastewater), 4J (Base expenditure water) and 4K (base expenditure waste water) assets are included in the service of principal use and recharges are included In other operating expenditure. The reason for this treatment is that this aligns with the treatment of these costs in the PR19 submission. This is different to AMP6 where the costs were reported in the business area where they were being used, i.e. not on a principal use basis. The reason for this treatment was to reflect the PR14 submission.

Appendix 1

Disaggregation of Wholesale activities – upstream services

2.12: Recharges to non-appointed activities

Costs relating to tankered Wastewater and property searches and restaurant and visitor centres are allocated directly to non-appointed activities with no recharges made for these costs. Tankered Wastewater costs are allocated to non-appointed activities using the Mogden formula.

3: Wholesale upstream services

3.1: Disaggregation of operating costs across upstream services

This is detailed in appendix 1.

3.2: Disaggregation of power costs across upstream services

This is covered in section 1.2 above.

3.3: Bulk supply imports

Bulk supply import costs of £1.1m have been allocated across the regulatory units using the average cost of the exporting company (as reported in their APR).

3.4: Significant changes in costs at upstream level service compared to previous year

The costs below are included as atypical costs in table 4D and 4E.

Restructuring costs

Last year following a reassessment of the restructuring provision we released £4.8m back to the income statement as a result of natural attrition and lower expected headcount reductions. The regulatory provision was split over the regulatory areas based on the original restructuring plans and the impact of this over the price controls is shown below:

	Water Resources	Water network+	Wastewater network+	Bioresources	Retail	Total
	£m	£m	£m	£m	£m	£m
Other operating expenditure	(0.11)	(1.71)	(1.57)	(0.33)	(1.10)	(4.82)

Pension past service cost

We have recognised an exceptional item totalling £30.8 million in this report year. This item represents the award of pension increases above a 5% cap. Under a 'best endeavours' clause in our pension scheme rules full RPI increases could only be awarded if certain criteria were met. In the current year scheme awards above a 5% cap have been paid by the pension scheme and, as the scheme is now in surplus, these conditions are expected to be paid in the future. Therefore, the expense in the year represents the additional awards given. In the future it is expected that changes to this assumption will be presented in Other Comprehensive Income as required under IAS19. This is disclosed as exceptional as the accounting treatment of these increases through the profit and loss account will only occur this year, it is of a significant value, and it does not closely reflect day-to-day operational expenditure.

The costs have been split across the price control period using the PR14 table output as this included a split per price control of those that were included in the DB scheme. As the scheme has closed the % allocation has remained the same

The movement of costs at price control levels and cost types is shown below:

	Water Resources	Water network+	Wastewater network+	Bioresources	Retail	Total
	£m	£m	£m	£m	£m	£m
Other operating expenditure	3.72	15.23	5.42	1.10	5.33	30.80

Compensation

During the winter, we experienced a freeze-thaw event which led to additional maintenance costs and compensation of £3 million to customers for supply interruptions. We have included the £3m as atypical as it is a one off event.

The movement of costs at price control levels and cost types is shown below:

	Water Resources	Water network+	Wastewater network+	Bioresources	Retail	Total
	£m	£m	£m	£m	£m	£m
Other operating expenditure	-	2.62	-	-	-	2.62

Appendix 1

Disaggregation of Wholesale activities – upstream services

Cost of living payment

During the year the company awarded the employees a cost of living payment as a result of the economic crises.

The movement at costs over price control levels and cost types is shown below:

	Water Resources	Water network+	Wastewater network+	Bioresources	Retail	Total
	£m	£m	£m	£m	£m	£m
Other operating expenditure	0.29	2.70	2.06	0.6	1.46	7.10

Personal search claims

During the year we settled some claims relating to personal searches. This is shown as atypical as it a one off event.

	Water Resources	Water network+	Wastewater network+	Bioresources	Retail	Total
	£m	£m	£m	£m	£m	£m
Other operating expenditure	-	0.91	0.91	-	-	1.82

See appendix 1 for further detail on significant changes in cost at upstream level.

3.5: Significant changes in a particular cost type at upstream level compared to previous year

Leakage and per capita consumption restatement

We have restated performance data for leakage and PCC which was reported to Ofwat for the financial years 2021 and 2022. We have provided for Customer rebates of £15 million to be credited to customers' accounts as soon as possible in 2023-2024. This provision has reduced revenue in treated water distribution by £15m

3.6: Completion of Tables 4D and 4E

The cost allocations used to complete tables 4D and 4E are included in the attached Appendices.

3.7: Methodology for the derivation of the sludge liquor treatment costs

The means of determining the mass of BOD in dewatering liquors returned to the treatment process at the Sludge Treatment Centre (STC) depends on data available at that site. The methods used to cover all STCs to determine the flow are as follows:

The first method uses the mass of sludge cake produced for each STC which is measured at weighbridges at our AAD advanced digesters using data stored on DCC's database. This is used to determine an estimate of liquors generated from the dewatering of the raw sludge (assumed at 2.5% dried solids) against an assumed concentration of the sludge cake (25% dried solids). Using a sludge cake density of 1.1 tonnes/m3 the volume of liquors can be calculated.

The second method uses total flow meter readings available on site to measure the actual liquor total flow. The total sludge treated and the volume of return liquor are determined as in the first method.

Typical BOD values determined from previous liquor sample analysis are used depending on the source of the sludge (e.g. surplus activated, raw primary or digested) to calculate the total BOD in the sludge liquors for the specific STC. However, in many cases, if actual samples have been taken for that STC, these are used for BOD concentration. The total BOD for all the STCs in DCC is determined by adding the mass of BOD in return liquors foreach STC.

To calculate the costs of liquor treatment the % ammonia at each works (calculated above) is applied to the total % load treated at each works and multiplied by the cost of the works to derive the cost of sludge liquor.

Appendix 1

Disaggregation of Wholesale activities – upstream services

Introduction

RAG 4.11 requires companies to disaggregate their totex costs further in tables 4D ,4E, 4J and 4K into the following upstream services:

Wholesale Water	Upstream services
Water Resources	Abstraction Licence
	Raw Water Abstraction
Network +	Raw Water Transport
	Raw Water Storage
Network +	Water Treatment
Network +	Treated Water Distribution

Wholesale Wastewater	
Network+	Sewage Collection - foul
	Sewage Collection - surface water drainage
	Sewage Collection - highway drainage
Network +	Sewage Treatment and Disposal
	Sludge Liquor Treatment
Bioresources	Sludge Transport
	Sludge Treatment
	Sludge Disposal

The following details each individual upstream service and assumptions applied.

Appendix 1

Disaggregation of Wholesale activities – upstream services

Water Services: operating expenditure

Abstraction Licence

Guidance

This service has been identified separately from the Raw Water Abstraction service because of the potential for a market to emerge in the future, which would enable abstraction licences to generate a separate income stream.

This service includes activities related to negotiating with third parties to obtain abstraction rights and to agree charges, as well as the annual cost of the licence itself. This service should not include activities that are incurred in choosing abstraction sites, optimising abstraction or ensuring compliance with licence conditions. All such abstraction planning activities and licence administration activities should be included in the Raw Water Abstraction service. This also includes transfer licences where they are to support another transaction.

Methodology

There are no changes to the methodology from last year.

Raw Water Abstraction

Guidance

The water abstraction service includes activities related to the operation of existing water resource sites, identification of new sources, catchment management, licence management, management of schemes in accordance with Acts of Parliament and other legal obligations, and the abstraction infrastructure which may include pre-treatment where it is upstream of Raw Water transport.

Pre-treatment processes can vary, from a relatively simple physical separation of the largest impurities, to more complex chemical treatments.

In some circumstances, transport from the water abstraction site is included within the abstraction service rather than in Raw Water Transport. Where raw water is transported between Water Resources assets, the assets supporting this transport should also be included in Water Resources – Raw Water Abstraction.

The activities relating to the inspections, operation and maintenance of assets in this price control unit are included in this service.

Methodology

There are no changes to the methodology from last year.

Raw Water Transport

Guidance

This service includes the activities related to transporting the raw water or pre-treated water from the boundaries of the abstraction site/assets or pre-treatment assets through a transport network to a treatment works, a Raw Water Storage facility (balancing reservoirs/tanks), or to customers that require untreated or non-potable water (including third party water companies).
It can also include blending of water from different sources.

Where a water abstraction site and water treatment works are co-located on the same site, then the raw water effectively 'by-passes' the Raw Water Transport stage.

The activities allocated to this service primarily include the development and maintenance of the physical Raw Water Transport network. This includes pipelines and aqueducts.

Methodology

There are no changes to the methodology from last year.

Raw Water Storage

Guidance

This service includes activities related to the construction, operation and maintenance of Raw Water Storage facilities. In general, no Raw Water Transport costs should be allocated to this service, since the cost of Raw Water Transport should be included within the Raw Water Transport service.

Associated activities, such as inlet flow control to prevent overfilling and outflow control (which ensures continuity of availability of supply) and planned and emergency drawdown and discharge facilities (with associated permitting) are included in this service.

Activities related to determining losses due to leakage and to ensuring security of the site from contamination are also included.

Appendix 1

Disaggregation of Wholesale activities – upstream services

Reservoirs/other storage assets that are not covered by the definitions in Raw Water Abstraction and have less than 15 days' usable storage should be included as Raw Water Storage.

Where pre-treatment is downstream of Raw Water Storage it should be included in Raw Water Storage. (Note the location of pre-treatment determines whether it should be accounted for as Raw Water Abstraction or Raw Water Storage).

Methodology

There are no changes to the methodology from last year.

Water Treatment

Guidance

Receive raw or partially treated (non-potable) water from the raw water transport network and undertake treatment processes. This may include water softening.

Inputs: Raw water and pre-treated (non-potable) water from raw water distribution network.

Outputs: Treated water (potable and non-potable) fed into the distribution network or directly to an end user customer. Waste by-products from treatment processes into the sewerage network.

Methodology

There are no changes to the methodology from last year.

Treated Water Distribution

Guidance

Treated Water Transport includes activities related to distributing treated water from the treatment works to the customer and includes secondary disinfection and other chemical dosing. This includes all trunk and distribution network repair and maintenance activities, as well as activities associated with any new network development.

Inputs: Treated (potable) water from treatment sites and third parties.

Outputs: Supply of treated (potable) water to customers and new appointees.

Methodology

There are no changes to the methodology from last year

Sewerage services: operating expenditure

Foul, surface water and highway drainage

Foul

Guidance

This service is for the collection of foul sewage from customers' properties. This includes development, repair and maintenance of the Sewage Collection infrastructure. Other specific activities are the provision and maintenance of ancillaries such as overflows, screens, on-line and off-line retention tanks, rising main wells and pumps and flow measurement.

Surface water drainage

Guidance

This service is for the collection of surface water from exterior areas of customers' properties. This includes development, repair and maintenance of the Sewage Collection infrastructure. Other specific activities are the provision and maintenance of ancillaries such as overflows, screens, on-line and off-line retention tanks, rising main wells and pumps and flow measurement.

Highway drainage

Guidance

This service includes the activities related to collection of surface water that runs off roads and pavements. The activities included in this service relate to the development, repair and maintenance of the Sewage Collection infrastructure. Other activities that should be considered within this service may include the provision and maintenance of ancillaries such as overflows, screens, on-line and off-line retention tanks, rising main wells and pumps and flow measurement.

Methodology

Prior to 2015, the split between surface water and highway drainage was based on a study prepared in 1999 by external consultants. This study was used as the basis for setting our tariff charges.

During 2014/15 we commissioned a further study by external consultants to update the findings of this original report, and to produce a model that could be used to split the costs between the upstream activities. This report incorporated the following improvements compared to the original study:

Appendix 1

Disaggregation of Wholesale activities – upstream services

- Increasing the number of modelled catchments from two to sixteen. The hydraulic modelling capability has improved significantly since the original report. The hydraulic modelling of all 16 chosen catchments had been reviewed under the Sustainable Drainage Planning programme. A mix of small, medium and large catchments was chosen, to provide understanding about how each could impact on the flows. The sixteen catchments were also chosen to include two catchments from each of the eight DCC operational areas, to ensure that the overall average would be representative of the range of DCC's catchments.
- The method for applying a flow split between surface water flows that derive from customers' properties, and those that derive from highways and footpaths, was previously based on small sample areas. With the improvements in technology, we reviewed the entire catchment using data included within OS mapping layers on ArcGIS. This gave a far greater confidence in the split between surface water drainage and highway drainage.
- The updated hydraulic modelling review used the latest verified data for DWF, plus it also used the diurnal flow profile which had previously been ignored.
- The hydraulic model simulations have been run with the typical year dataset rather than estimates for the 1997/98 flows that had been used in the 1999 report (based on proportioning from the 1985 rainfall data);
- CSO spills were previously ignored, with the 1999 report only considering storm flows spilling at the treatment works. With advances in hydraulic modelling we have additional data to understand the storm flow discharged from the system in a typical year; and
- The cost split in 1999 included the cost of treatment, whereas the requirement for Ofwat in 2015 was to provide the split for sewerage costs only.

Quality assurance of model

- The criteria for inclusion within the study were that the hydraulic models had to show reasonable accuracy, be geographically spread across the operating area and also show a mix of catchment sizes. To assess what could count as 'reasonable', all selected hydraulic models had been utilised on modelling schemes within the last five years which would indicate a reasonable level of confidence in modelling methodology and best practice. The majority of the catchments have had Sustainable Drainage Plans (SDP) completed in AMP5. The total population equivalent represented by the chosen catchments equated to over half a million people;
- The model data was sense checked by our external consultants (Mouchel). In addition, further checks were undertaken by our Asset Capability team, including re-running three of the 16 models to verify the results. The outputs from the analysis were also compared to other catchments to determine whether the results were sensible; and
- One of the areas that was identified to improve on was the confidence in the assigned split of 'Other operational expenditure' as these splits were based on engineering estimates and did not reflect the nature of the work. An exercise was carried out to determine the most accurate method of splitting out these costs between foul, surface water and highway drainage. Working alongside network managers and taking samples of incidents to record the nature of the work, a new split was derived as follows and applied in this report year.

The % allocation is reviewed annually and as a result the % changes within areas have not changed and are as follows:

Operating expenditure (excluding IRE) splits used for report year	2021/22	2022/23
Foul	62%	62%
Surface water	25%	25%
Highway drainage	13%	13%

In addition the capital spend in Sewerage has been analysed between the three business units for 2022/23 resulting in the following allocation:

Capital expenditure	Maintenance	Other capital expenditure
Foul	58%	61%
Surface water	27%	25%
Highway drainage	15%	14%

There are no changes to the methodology from last year.

Sewage Treatment and Disposal

Guidance

This activity comprises the receipt of untreated sewage from the Sewage Collection system into treatment works, undertaking treatment processes and the discharge of treated wastewater into rivers, etc., and the transport of sewage sludge to sludge treatment processes. This includes all direct costs associated with Sewage Treatment including terminal pumping costs. The activities of emptying septic tanks or very small sewage works, by transporting the contents periodically to the inlet of a larger sewage treatment works, are also Sewage Treatment activities.
Inputs: Untreated sewage from the Sewage Collection network.

Appendix 1

Disaggregation of Wholesale activities – upstream services

Outputs: Treated wastewater into receiving watercourses, discharge of sewage sludge for transporting to sludge treatment processes.
Excludes imported liquor treatment.

Methodology

There are no changes to the methodology from last year.

Sludge Liquor Treatment

Guidance

This includes all activities in transporting and treating liquors at a sewage treatment plant that have been generated during the Sludge Treatment process. This includes transporting and treating liquors that have been partially treated and are returned for final treatment at a sewage treatment plant.
It excludes liquor treatment which is carried out at a stand-alone liquor treatment plant (which will be included in the Sludge Treatment upstream service).

Methodology

There are no changes to the methodology from last year.

Sludge Transport

Guidance

This service includes the transport of sludge from the sewage treatment plant to the sludge treatment plant. All types of transport, and associated fuel costs, are included within this service. However, transport within the sludge treatment plant or between sludge treatment plants is not included in this service, which is instead an activity of the Sludge Treatment service.

Methodology

Costs of our internal and contracted Sludge Transport service are used to manage routine haulage work and these costs are separately identifiable.
There are no changes to the methodology from last year.

Sludge Treatment

Guidance

All Sludge Treatment activities including;

- Thickening of treated sludge;
- De-watering of thickened sludge;
- Incineration of non-treated sludge; and
- Treatment of sludge liquors in a stand-alone liquor treatment plant.

While different technologies exist for sludge treatment, Sludge Treatment is defined as a technology-neutral service for the purpose of the APR. Where income is received for energy generation then this should be shown as 'negative expenditure' in table 4E.

Methodology

There are no changes to the methodology from last year.

Sludge Disposal

Guidance

The collection of treated sludge from collection point, onward transport and disposal to landfill, agricultural land, land reclamation sites and to other end users in various forms including:

- Treated sludge;
- Incinerated sewage sludge ash (ISSA);
- Composted sludge; and
- Sludge cake.

If incineration of completely treated sludge takes place, then this should be included in Sludge Disposal.
Where income is received for treated sludge, then this should be shown as 'negative expenditure' in table 4E.

Methodology

There are no changes to the methodology from last year.

Upstream Services: capital expenditure

As mentioned earlier, the majority of capital expenditure can be allocated directly to the business areas as a result of its coding structure and model.

Management and general assets are allocated using FTE numbers split based on direct labour(see section 2.8 for further information)

Appendix 1

Disaggregation of Wholesale activities – upstream services

Explanation of cost movements from prior years

In RAG 3.14 there is a requirement to report costs that have significantly moved from last year.

The commentary below provides explanations for all significant movements (above 10% or £0.5m) compared to 2021/22

Water Resources		Operating expenditure		
Service		Abstraction Licence	Raw Water Abstraction	Total
Total cost 2021/22	£m	10.9	14.8	25.7
Movements	£m	0.1	8.9	9.0
Total cost 2022/23	£m	11.0	23.7	34.7
Movement since last year		1%	60%	35%

Significant movements (>10% or £0.5m) compared to last year are summarised below.

Abstraction licence opex costs have remained in line with last year

Raw Water Abstraction operating costs have increased by 60% (£8.9m). The reasons include:

- Power increase (£1.4m) reflect increase in wholesale price
- Power income has reduced due to hydro assets not performing as well as last year
- Other operating expenditure has increased by £5m; atypical costs (see 3.4 for further detail) amount to £4m, as well as increase in chemical costs.
- Cumulo rates have increased by £1.4m and is a result of using a new MEAV valuation model.

Capex has increased by £7m (19%). Base capex has increased by £3.8m reflecting the ongoing costs of the Dam safety programme and the enhancement increase of £3.8m relates to the cost of the visitor centree at Llanishen. In addition there was £4.5m lower capital income due mainly to lower NRW income.

In summary, Raw Water Abstraction totex (including cash items) has increased by £21.8m (38%); a £9m increase in opex and £13m increase in capex .

Table 5B

Water Resources costs are further disaggregated into the following asset type in table 4V:

- impounding reservoir;
- pumped storage;
- river abstraction;
- ground water excluding MAR water supply schemes;
- artificial recharges water supply schemes;
- aquiver storage and recovery water supply schemes; and
- other.

Direct costs that are coded to sites are allocated directly to asset type. The cost driver used for costs that cannot be directly allocated are:

- Cumulo rates - MEAV;
- Scientific services - asset allocation;
- Water recharged to waste – EA licences; and
- Other costs - direct cost proportions.

Appendix 1

Disaggregation of Wholesale activities – upstream services

Significant movements (>10% or £0.5m) compared to last year are summarised below.

Raw water distribution		Operating expenditure		
Service		Raw Water Transport	Raw Water Storage	Total
Total cost 2021/22	£m	5.1	1.0	6.1
Movements	£m	0.9	0.2	1.1
Total cost 2022/23	£m	6.0	1.2	7.2
Movement since last year		18%	20%	18%

Raw Water Transport operating costs and raw water storage have increased by 18% (£1.1m) : £0.5m relate to atypical costs and £0.6m increased power costs .
Raw Water transport capex has increased by £1.6m due to a WRMP scheme .

Water Treatment		Operating expenditure
Total cost 2021/22	£m	42.7
Movements	£m	12.1
Total cost 2022/23	£m	54.8
Movement since last year		28%

Significant movements (>10% or £0.5m) compared to last year are summarised below.

Water Treatment operating costs have increased by 28% (£12.1m). Reasons include:

- Atypical costs of £6m
- Chemical and consumable increase of £5m as a result of the price increase due to volatility in the market
- Power costs have increased by £0.5m due mainly to price pressure.

Capex has increased by £6m: base maintenance has increased by £7m relating WWTW ancillaries.

In summary, Water Treatment totex (including cash items) has increased by £17.5m (23%); £12.1m increase in opex and £6m increase in capex

Treated Water Distribution		Operating expenditure
Total cost 2021/22	£m	119.1
Movements	£m	41.0
Total cost 2022/23	£m	160.1
Movement since last year		34%

Significant movements (>10% or £0.5m) compared to last year are summarised below.

Treated Water Distribution operating costs have increased by 34% (£41m). The reasons include:

- Other operating expenditure – renewals expensed in the year - infra has increased by £12m (30%): this includes increased spend on network ancillaries and leakage as well as increase in the NRSWA diversion costs in the year
- Other operating costs excluding renewals have increased by £17.5m (38%): increases in atypical cost (£14.7m) account for most of this increase
- Power has increased by £2.3m (12%) reflecting the wholesale price increase

Capex has increased by £19m; Base maintenance has increased by £16m and relates to IRE schemes being classed as enhancement, increase in customer meters (£2m), and other large schemes for bulk meters , service reservoirs and water pumping stations.

In summary, totex (including cash items) for treated water distribution has increased by £53m (30%); increase in opex of £41m and capex of £12m.

Appendix 1

Disaggregation of Wholesale activities – upstream services

Sewage Collection		Operating expenditure			
Service		Foul	Surface water	Highway drainage	Total
Total cost 2021/22	£m	36.1	14.5	7.4	58.0
Movements	£m	5.5	4.1	1.4	11.0
Total cost 2022/23	£m	41.6	18.6	8.8	69.0
Movement since last year		15%	28%	19%	19%

Significant movements (>10% or £0.5m) compared to last year are summarised below.

Overall total Sewage Collection operating costs have increased by £11m (19%)

- Power increase £1.9m (33%) due to wholesale price increase
- Renewals expensed in the year (infrastructure) £1.4m higher than last year and includes costs for reactive and private pumping stations
  Other operating expenditure has increased by £6.0m; £5.1m relates to atypical costs
- Third party services have increased by £1.5m and relates to increase in NRSWA diversions

Capex overall has decreased by £1m for Sewage Collection; the increase in network reinforcement costs (£10m) offsets the decrease in the other areas.

Sewage Collection totex (including cash items) has increased by £10m (10%); £1m lower capex, and £11m increased opex

Sewage Treatment		Operating expenditure		
Service		Sewage Treatment	Imported Sludge Liquor	Total
Total cost 2021/22	£m	72.3	5.6	77.9
Movements	£m	13.9	0.0	13.9
Total cost 2022/23	£m	86.2	5.6	91.8
Movement since last year		19%	0%	18%

Significant movements (>10% or £0.5m) compared to last year are summarised below:

Sewage Treatment operating costs have increased by £14.0m (18%); the main reasons for this are:

- Power costs have increased by £3.7m due to wholesale price increases as well as increased consumption
- Other operating expenditure (excluding renewals) has increased by £10m (31%); £3.2m of this relates to atypical costs, £3.5m of additional chemical costs driven by market constraints, resulting in significant price increases for key operational chemicals including Polymers (+70%), used for the separation of suspended solids. The usage of chemicals has also risen by around 30%, to meet compliance requirements as waste entering the system was more concentrated during the drought periods. Sewerage contractor costs have risen £2.0m driven by market rate pressures and tankering activity to protect compliance and measures of success.

Capex has increased by £14m (18%) which mainly relates to the enhancement scheme increase of £12m relating to P removal schemes

In summary, Sewage Treatment totex (including cash items) has increased by £27.9 (19%); £14m higher opex and capex (£14m) .

Imported Sludge Liquor totex has remained in line with last year

Appendix 1

Disaggregation of Wholesale activities – upstream services

Sludge		Operating expenditure			
Service		Sludge Transport	Sludge Treatment	Sludge Disposal	Total
Total cost 2021/22	£m	5.8	3.1	4.4	13.3
Movements	£m	1.3	4.3	0.8	6.4
Total cost 2022/23	£m	7.1	7.4	5.2	19.7
Movement since last year		22%	139%	18%	48%

Significant movements (>10% or £0.5m) compared to last year are summarised below:

Overall Sludge operating costs have increased by 48% (£6.4m).

Sludge Transport costs have increased by £1.3m relating to other operating expenditure.
Capex has remained in line with last year.

In summary, totex (including cash items) for Sludge Transport has increased by £1.3m (22%); £1.3m opex.

Sludge treatment opex costs have increased by £4.4m (35%) and reflect:

- Power (fuel) decrease £0.6m (45%); this includes all the fuel costs of the sludge transport fleet
- Income reduced by £2m (7%) due to assets breaking down and being repaired.
- Other operating expenditure increased by £2.9m (16%) ; £1m relate to atypical costs,

Sludge treatment capex costs are in line with last year

In summary, Sludge Treatment totex (including cash items) has increased by £4.7m which relate to opex increase.

The Sludge Disposal costs increase of £0.9m (20%) relate mainly to opex and reflect:

- Other operating expenditure increased by £0.8m (18%) ; £0.3m relate to atypical costs and £0.2m increase in hire costs.

Appendix 2

Retail: Wholesale cost allocation

Cost Allocation	Cost Driver
Customer Services	
Billing	Wholly in Retail.
Payment handling and remittance	Wholly in Retail.
Non – Network customer enquiries and complaints	Wholly in Retail.
Network customer enquiries and complaints	
Dŵr Cymru Waste Wholesale	
Scheduling jobs	A team within the Wastewater services schedules the first job following its trigger by a customer contact. Management estimates the time spent on the initial call made to the customer to schedule a visit.
Aborted jobs	A SAP report identifies the cost of all jobs aborted as a result of customer contact.
Call to customer for customer call to be resolved	Management estimates the time spent on customer contact to close off the call as the contact is made directly by the wholesale team to the customer and not via the retail call centre.
Dŵr Cymru Water Wholesale	
Scheduling jobs	Management estimates the time spent on the initial call made to the customer to schedule a visit.
Inspector's first visit	The number of jobs requiring a customer visit is despatched from the Operational call centre within retail and filtered by cause to establish the cost of non-network visits.
Call to customer for customer call to be resolved	Management estimates the time spent on customer contact to close off the call as the contact is made directly by the wholesale team to the customer and not via the retail call centre
Debt Management	
Debt management	Wholly in Retail.
Customer Doubtful Debt	
Customer doubtful debt	Partly in Retail, as doubtful debt in Wholesale relates to bulk supplies or third parties.
Meter Reading	
Meter reading	Wholly in Retail.
Services to Developers	
Services to developers	Costs are apportionment by management estimate. Costs in retail are only for providing developer information and administration for new connections.
Other operating expenditure	
Demand-side water efficiency	
Costs incurred by Wholesale	These are treated as Wholesale activities as they relate to Wholesale outcomes (a sole exception is a small amount of Retail expenditure which reflects customer service advisors' time linked to affordability initiatives promoting the potential benefits of metering).
Customer side leaks	
Costs incurred by Wholesale	These are treated as Wholesale activities as they relate to Wholesale outcomes
Other direct costs	
Retail segment	Wholly in Retail.
Dŵr Cymru insurance costs	Insurance costs are allocated to Retail by FTE.
Dŵr Cymru actuarial charges	Defined benefit and defined contribution pension scheme costs are allocated based on membership numbers.
Disconnections and reconnections	
Disconnections and reconnections	Decision and administration costs only are allocated to Retail.
General and support expenditure	
IT Costs:	
Retail segment	Wholly in retail.

Appendix 2

Retail: Wholesale cost allocation

Cost Allocation	Cost Driver
Dŵr Cymru IT department	Allocation is based on a combination of company revenues, FTEs, number of computers and system types.
Finance:	
Retail segment	Wholly in retail.
Dŵr Cymru Finance	Allocated directly where appropriate and management assesses the cost apportionment of roles which cover for company-wide activities which includes using company revenues.
Dŵr Cymru Charges team	Allocation is based on company revenues.
HR:	
Retail segment	Wholly In Retail.
Dŵr Cymru HR department	Allocated directly where appropriate only and by FTEs where this is not possible.
Executive team:	
Dŵr Cymru Chief Executive and Finance Director	Allocation is based on company revenues.
Dŵr Cymru Company Secretariat, Executive, Non-Executive Directors and Members' costs.	Allocation is based on company revenues.
General management:	
Retail segment	Wholly In Retail.
Facilities:	
Retail segment	Wholly in Retail.
Dŵr Cymru	Allocation is based on FTEs.
Other general and support costs:	
Retail segment general and support costs:	
Meter reading	Wholly in Retail.
Training and quality	Wholly in Retail.
Web	Wholly in Retail.
Business change	Wholly in Retail.
Compliance	Wholly in Retail.
Key and business customers	Wholly in Retail.
Dŵr Cymru general and support costs:	
Communications team	Allocated directly where appropriate and, where this is not possible, by management judgement.
Quality and assurance	Management time spent on Retail/Wholesale audit work.
Health and safety	Allocated directly where appropriate and management assesses the cost apportionment of roles which cover company-wide activities.
Tax and capital markets	Allocation is based on company revenues.
Finance planning	Allocated directly where appropriate and management assesses the cost apportionment of roles which cover company-wide activities.
New business	Management assessment
Trade effluent sampling	Management assessment of sampling activity
Other business activities	
Regulation costs	1/9th to Retail.
Local authority rates	
Local authority rates	Allocation is based on FTEs.

Appendix 3

Wholesale cost allocation

Allocation bases

Cost Driver A – Direct costs can be mapped directly from a cost centre to the relevant accounting separation business unit.
Cost Driver B – Mapping is not direct, but a specific cost driver is used to allocate the cost to the appropriate accounting separation business unit.
Cost Driver C – Mapping is not direct, allocations are worked out using appropriate judgements based on available data and understanding of the business.

	Water Resources	Raw Water Distribution	Water Treatment	Water Distribution	Sewerage	Sewage Treatment	Sludge Transport & Treatment	Sludge Disposal
	£m	£m	£m	£m	£m	£m	£m	£m
Power	A/B	A/B	A/B	A/B	A/B	A/B	A/B	A/B
	Power costs include all energy costs (including climate change levy costs). Electricity costs are allocated to assets using DCC's energy management system in SAP, which receives electronic bills (EDI's) from the energy suppliers and, by reference to the Meter Point Administration Number (MPAN), charges the cost to an asset's cost centre. This data is used for regular financial reporting against budget so any large discrepancies between actual and budget are reviewed. Where an MPAN provides electricity for more than one price control unit, a percentage split is applied that is specific to the associated MPAN. The percentage split is determined by estimating the electricity cost per price control unit by undertaking site audits. These involve cataloguing all the electrical equipment on site. The running hours and loading of each piece of equipment are estimated/determined to calculate annual electricity consumption and this is allocated to regulatory cost accounting areas. The equipment's electricity use as a proportion of the total site's electricity consumption is used to establish the cost centre splits. Where there is submetering of some of the equipment this is used in preference to the site audit data in order to improve the accuracy of the cost centre split. The Power costs category also include fuel costs, which are allocated to the cost centres where the asset which consumes the fuel is located. For assets that support more than one price control segment, the costs are allocated based on the most appropriate cost centres based on Ofwat's hierarchy of cost drivers. For income from power generation all the stand alone hydros are reported in water resources. The remaining hydros embedded in the treatment works and the solar income has been spread across the regulated areas that are associated with the works. For waste water all the CHP & Gas to grid revenues are reported within the sludge price control and the remaining revenue associated with wind & solar reported within the treatment price control.							
EA Service Charges	A	-	A	-	A	A	-	-
	Abstraction charges received from the Natural Resources Wales are allocated to water resources. Discharge consent payments to the Environment Agency are supported by a site-by-site breakdown and this is used to allocate the cost to the appropriate activities and processes.							
Bulk Supply Imports	A/B	A/B	A/B	A/B	-	-	-	-
	Bulk supply imports relate to the purchase of potable water and non-potable water. The non-potable element is allocated to Water Resources. The cost of imported potable bulk water supplies are split between Water Resources and Water Network+ using the cost split of the exporting company as reported in their latest published Annual Performance Report.							

Appendix 3

Wholesale cost allocation

Allocation bases

Cost Driver A – Direct costs can be mapped directly from a cost centre to the relevant accounting separation business unit.
Cost Driver B – Mapping is not direct, but a specific cost driver is used to allocate the cost to the appropriate accounting separation business unit.
Cost Driver C – Mapping is not direct, allocations are worked out using appropriate judgements based on available data and understanding of the business.

	Water Resources	Raw Water Distribution	Water Treatment	Water Distribution	Sewerage	Sewage Treatment	Sludge Transport & Treatment	Sludge Disposal
	£m	£m	£m	£m	£m	£m	£m	£m
								Other operating expenditure
Employment Costs	A/B	A/B	A/B	A/B	A/B	A/B/C	A/B/C	A/B
	Following the introduction of SAP work management systems, the majority of operational staff's workload and the related allocation of cost is automated. As a consequence, the need for manual allocations of people's time is minimised. Furthermore, many operational staff and their associated cost centres can be attributed to one particular activity and instances of staff working across more than one activity are relatively low. For example, Water Distribution employees rarely work on Water Resources, Raw Water Distribution or Water Treatment assets, while Water Treatment operatives rarely carry out any work within Water Distribution. The situation is similar within the Sewerage business, where sewerage operatives rarely perform Sewage Treatment and Sludge Treatment activities. However at co-located sludge centres, management estimates are used to allocate costs between sewage treatment and sludge activities. Managers' estimates are used to allocate any under or over-recoveries in operatives' home cost centres.							
Hired and Contracted Services	A	A	A	A	A	A	A	A
	Hired and contracted services are charged directly to business units by procurers who are generally dedicated to that activity. Where the costs relate to Switch, AGA or ME&I generated work, they are charged directly to a works order which is a unique cost collector for a specific job. These works orders settle costs to the cost centres or capital internal orders associated with the asset, job type and location.							
Chemicals	A	A	A	A	A	A	A	A
	Chemicals are charged directly to assets and activities by procurers who are generally dedicated to those activities. Where the costs relate to Switch, AGA or ME&I generated work, they are charged directly to a works order which is a unique cost collector for a specific job. These works orders settle to the cost centres or capital internal orders associated with the asset, job type and location.							
Materials and Consumables	A	A	A	A	A	A	A	A
	Materials and consumables are charged directly to assets and activities by procurers who are generally dedicated to those activities. Where the costs relate to Switch, AGA or ME&I generated work, they are charged directly to a works order which is a unique cost collector for a specific job. These works orders settle to the cost centres or capital internal orders associated with the asset, job type and location.							
Other	B/C	B/C	B/C	B/C	B/C	B/C	B/C	B/C

Appendix 3

Wholesale cost allocation

Allocation bases

Cost Driver A – Direct costs can be mapped directly from a cost centre to the relevant accounting separation business unit.

Cost Driver B – Mapping is not direct, but a specific cost driver is used to allocate the cost to the appropriate accounting separation business unit.

Cost Driver C – Mapping is not direct, allocations are worked out using appropriate judgements based on available data and understanding of the business.

	Other costs include insurance costs relating to wholesale activities. Insurance costs have been allocated based on FTE for employer's liability and for uninsured provision based on claims history.							
	Water Resources	**Raw Water Distribution**	**Water Treatment**	**Water Distribution**	**Sewerage**	**Sewage Treatment**	**Sludge Transport & Treatment**	**Sludge Disposal**
	£m	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**
General and Support Expenditure	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**
	The cost allocation for general and support expenditure is shown in appendix 4.							
Scientific Services	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**
	Laboratory services costs are allocated across the various activities based on management estimates which used the amount of samples plus other relevant cost factors.							
Other Business Activities	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**
	This includes the cost of regulation, including all incremental managerial costs of regulation associated with a periodic review, licence fees payable to Ofwat in respect of regulation, certification fees associated with the Licence requirements and staff and associated costs incurred in the preparation of submissions to, and liaison with, regulators. Costs are allocated equally across nine activities (four for water services, four for sewerage services and one for retail services.							
Local Authority Rates	**B**	**B**	**B**	**B**	**B**	**A/B**	**B**	**B**
	This relates to the cost of local authority rates and includes both local authority rates and Cumulo rates. Cumulo (water-only) rates are allocated across activities in proportion to the gross MEA value of assets assigned to the business. Cumulo rates associated with the Environment Agency operating agreement are charged to third party services. Non-domestic rates relating to sewerage sites are allocated primarily to the sewage treatment activity. Where there is a sludge treatment activity at a sewage treatment site, a percentage (based on rateable values) is charged to the sludge treatment activity.							
Third Party Services	**A/C**	**A/C**	**A/C**	**A/C**	**-**	**-**	**-**	**-**
	Third party services include costs associated with the supply of non-potable water, the supply of standpipes, ships water, bulk supply, reservoir agreements and rechargeable works. Rechargeable works, standpipes, ships water and reservoir agreement costs are extracted from our accounting system and an element of general and support costs are added to this. Bulk supply third party costs consist of the abstraction licence relating to this together with allocation for general and support costs							

Appendix 4

General and support allocation

Cost Category	Base for split of costs that are not directly allocated – Cost Driver	Rationale	Water Resources	Water Network+	Sewage Network+	Sludge	Retail	Non-Appointed
Chief Executive Officer	Company revenues	Considered most appropriate driver for Chief Executive of whole organisation	7%	33%	49%	5%	6%	-
UK Water	Equal split across nine business units	Per Ofwat guidance for 'regulatory' costs	11%	33%	22%	22%	11%	-
Finance Director	Company revenues	Considered most appropriate driver for FD of whole organisation	7%	33%	49%	5%	6%	-
General Counsel	Company revenues	Considered most appropriate driver for company-wide function	7%	33%	49%	5%	6%	-
Legal Costs	Management assessment	Head of Legal detailed analysis of costs	3%	26%	(10%)	5%	75%	1%
Regulatory Compliance	Equal split across nine business units	Per Ofwat guidance for 'regulatory' costs	11%	33%	22%	22%	11%	-
Company Secretary	Company revenues	Considered most appropriate driver for company-wide function	7%	33%	49%	5%	6%	-
HR								
HR other	Company FTEs and management assessments	Considered most appropriate driver for HR function that supports whole organisation	4%	39%	30%	9%	16%	2%
Business Assurance								
Business Assurance	Management assessment	Time sheet together with management estimate	4%	36%	28%	8%	23%	2%
Communications								
Communications	Management assessment	Communications Director assessment of costs over the business areas	4%	31%	32%	10%	18%	5%
Planning & Regulation								
Planning & Regulation Director	Equal split across nine business units	Per Ofwat guidance for 'regulatory' costs	11%	33%	22%	22%	11%	-

Appendix 4

General and support allocation

Cost Category	Base for split of costs that are not directly allocated – Cost Driver	Rationale	Water Resources	Water Network+	Sewage Network+	Sludge	Retail	Non-Appointed
Planning & Regulation (continued)								
Economic & Charges	Company revenues	Considered most appropriate driver for company-wide function	7%	33%	49%	5%	6%	-
Economic regulation - team	Equal split across nine business units	Per Ofwat guidance for 'regulatory' costs	11%	33%	22%	22%	11%	-
Regulatory Strategy	Equal split across nine business units	Per Ofwat guidance for 'regulatory' costs	11%	33%	22%	22%	11%	-
Finance								
Tax and Treasury	Company revenues	Considered most appropriate driver for company-wide function	7%	33%	49%	5%	6%	-
Commercial Finance	FTEs within Finance team	Direct allocation where appropriate and manager assessment of split roles	4%	37%	32%	9%	9%	9%
Corporate Finance	FTEs and Mgt assess't	Considered most appropriate cost driver	7%	35%	43%	6%	6%	2%
Release of GR/IR	Split in proportion to direct costs	Split of purchases in 2021/22 considered most appropriate	11%	40%	45%	4%	-	-
Environment								
Environment	Management assessment	Head of Department assessment of budget split – wholesale only	7%	24%	59%	10%	-	-
Business Information Services								
Business Information Services	Direct allocation, equipment and FTE split	This has changed from using number of computers and FTE. Considered most appropriate cost driver in line with the RAG guidance.	3%	39%	26%	6%	23%	2%

Appendix 4

General and support allocation

Cost Category	Base for split of costs that are not directly allocated – Cost Driver	Rationale	Water Resources	Water Network+	Sewage Network+	Sludge	Retail	Non-Appointed
Health and Safety								
Health and Safety	Management assessment	Considered most appropriate cost driver	7%	39%	36%	10%	6%	2%
Operational Services								
Emergency Planning	Management assessment	Head of Department assessment of cost split	6%	80%	9%	4%	-	-
Other operational services	Management assessment	Head of Department assessment of cost split	2%	51%	32%	7%	7%	1%
Procurement and Estates								
Head of Procurement and Estates	Management assessment	Head of Department assessment of cost split	11%	40%	45%	4%	-	-
Facilities	Site based headcount	Headcount occupation at sites	4%	38%	26%	7%	23%	2%
Procurement	Bought in service costs	Split in proportion to WWR bought-in services costs	11%	40%	45%	4%	-%	-
Estates	Net book value of non-infra assets	Split in proportion to WWR NBV of non-infra assets	4%	29%	63%	3%	-	-
Insurance	Based on MEAV, FTEs and claim history	Considered most appropriate driver	25%	34%	24%	15%	2%	-
Energy Team	Power costs	Considered most appropriate driver	10%	36%	48%	5%	1%	-
Dŵr Cymru Retail segment	Wholly Retail		-	-	-	-	100%	-
Total General and Support			8%	36%	24%	7%	21%	4%

Appendix 5

Household: Non-household split

Cost Category	Cost Driver used for Regulatory 2021/22 Accounts	Cost Driver used for Regulatory 2022/23 Accounts	H : NH split	
			H	NH
Customer services				
Billing			**90%**	**10%**
Billing	Bills raised	Unchanged from 2022 basis	90%	10%
Billing resolutions team	Volume of billing queries and work orders	Unchanged from 2022 basis	87%	13%
Payment handling and remittance	Volume of payments as per RAG 2.08	Unchanged from 2022 basis	**97%**	**3%**
Non-network customer enquiries and complaints			**85%**	**15%**
Customer relations	Correspondence contacts	Unchanged from 2022 basis	86%	14%
BPO	BPO contacts	Unchanged from 2022 basis	94%	6%
Postage	Printing and postage charges – Non-billing	Unchanged from 2022 basis	79%	21%
Call centre and training	Call centre contacts	Unchanged from 2022 basis	92%	8%
Customer retail team	All non-household	Unchanged from 2022 basis	-	100%
Network customer enquiries and complaints			**85%**	**15%**
OCC	Volume of operational contacts logged	Unchanged from 2022 basis	85%	15%
Postage	Printing and postage charges – Non-billing	Unchanged from 2022 basis	80%	20%
Webchats and social media	Volume of webchats and social media contacts	Unchanged from 2022 basis	96%	4%
Dŵr Cymru Waste				
Schedulers	Total volume of waste calls received	Unchanged from 2022 basis	90%	10%
Aborted jobs	Total volume of waste calls received	Unchanged from 2022 basis	90%	10%
Call to customer for call to be resolved	Total volume of waste calls received	Unchanged from 2022 basis	90%	10%
Trade effluent sampling	All non-household	Unchanged from 2022 basis	-	100%
Dŵr Cymru Water				
Scheduling jobs	Customer numbers	Unchanged from 2022 basis	93%	7%
Investigation of problem	Volume of network inspector aborted jobs raised	Unchanged from 2022 basis	85%	15%
Call to customer for call to be resolved	Customer numbers	Unchanged from 2022 basis	93%	7%

Appendix 5

Household: Non-household split

Cost Category	Cost Driver used for Regulatory 2021/22 Accounts	Cost Driver used for Regulatory 2022/23 Accounts	H : NH split	
Customer services (continued)			**H**	**NH**
Vulnerable customer schemes	All household	Unchanged from 2022 basis	**100%**	**-**
Debt management			**87%**	**13%**
DCCS: collections	Collections work	Unchanged from 2022 basis	84%	16%
Affordability	Affordability	Unchanged from 2022 basis	100%	-
DCA charges	Accounts referred to DCAs	Unchanged from 2022 basis	100%	-
Postage	Printing and postages charges – Non-billing	Unchanged from 2022 basis	79%	21%
Water company commissions	Customer numbers	Unchanged from 2022 basis	93%	7%
Council commissions	Affordability	Unchanged from 2022 basis	100%	-
Customer doubtful debt			**96%**	**4%**
Local authority bad debt	All household	Unchanged from 2022 basis	100%	-
Doubtful debt	Write offs	Unchanged from 2022 basis	96%	4%
Meter reading			**79%**	**21%**
Field operations support	Volume of rejected/abnormal meter reading	Unchanged from 2022 basis	75%	25%
Filed operational work	Number of attempted meter read visits (with NHH weighting)	Unchanged from 2022 basis	81%	19%
Dŵr Cymru water inspectors	Volume of network inspector meter jobs	Unchanged from 2022 basis	73%	27%
Other operating costs				
Disconnections and reconnections	Entirely non-household	Unchanged from 2022 basis	-	100%
Customer side leaks	Customer numbers	Unchanged from 2022 basis	93%	7%
Dŵr Cymru customer services team	Cost identified that could be directly attributed and remaining costs split using customer numbers	Unchanged from 2022 basis	93%	7%
General and support expenditure				
Dŵr Cymru Retail			**93%**	**7%**
Other general and support costs	Customer numbers	Unchanged from 2022 basis	93%	7%

Appendix 5

Household: Non-household split

Cost Category	Cost Driver used for Regulatory 2021/22 Accounts	Cost Driver used for Regulatory 2022/23 Accounts	H : NH split	
General and support expenditure (continued)			**H**	**NH**
Dŵr Cymru				
IT department	Headcount and nature of support and customer numbers	Unchanged from 2022 basis	93%	7%
Facilities	Customer numbers	Unchanged from 2022 basis	93%	7%
Quality and assurance	Customer numbers	Unchanged from 2022 basis	93%	7%
Health and safety	Customer numbers	Unchanged from 2022 basis	93%	7%
Tax and capital markets	Customer numbers	Unchanged from 2022 basis	93%	7%
Other business activities (Regulation costs)	Customer numbers	Unchanged from 2022 basis	**93%**	**7%**
Developer Services				
Developer services	All non-household	Unchanged from 2022 basis	**-**	**100%**
Regulatory Accounts 2022/23			**91%**	**9%**

Appendix 6

Measured and unmeasured split

In prior years costs between water-only, wastewater-only, and water and wastewater customers were split based on customer numbers (including dual service weighting); the following therefore refers to the allocations between household measured and unmeasured customers only. In accordance with the latest RAG guidance the Measured / Unmeasured splits are no longer required in preparing the APR tables.

	Cost	Cost Driver	Justification
Customer services	Billing	Bills raised for each customer type	As per RAG 2.08 guidance
Customer services	Billing Resolutions Team	Volume of billing queries by customer type	This data was only available from 2019/20. Enables a more accurate allocation by customer types as per RAG 2.08
Customer services	Payment handling, remittance and cash handling	Number of payments received from each customer type	As per RAG 2.08 guidance
Customer services	Vulnerable customer schemes	Number of customers on affordability tariffs from each customer type	As per RAG 2.08 guidance
Customer services	Non network customer enquiries and complaints: Customer Relations Team	Number of non-network customer enquiries to this team from each customer type	As per RAG 2.08 guidance
Customer services	Non network customer enquiries and complaints: Compensation Payments - NOT USED	Directly attributed	As per RAG 2.08 guidance
Customer services	Non network customer enquiries and complaints: Postage	Printing and postage charges (excluding billing) for each customer type	Reflects the cost of postage incurred in responding to contacts
Customer services	Non network customer enquiries and complaints: call centre costs	Number of non-network customer enquiries to this team	As per RAG 2.08 guidance
Customer services	Network customer enquiries and complaints: OCC	Volume of network customer enquiries and complaints recorded in SAP for each customer type	As per RAG 2.08 guidance
Customer services	Network customer enquiries and complaints: Postage	Printing and postage charges (excl. Billing) for each customer type	Reflects the cost of postage incurred in responding to contacts
Customer services	Network customer enquiries and complaints: waste: Schedulers	Customer numbers with dual service weighting for each of the six customer types	Reflects the most appropriate basis for allocating costs as we do not record customer type for this work
Customer services	Network customer enquiries and complaints: waste: Aborted jobs	Customer numbers with dual service weighting for each of the six customer types	Reflects the most appropriate basis for allocating costs as we do not record customer type for this work
Customer services	Network customer enquiries and complaints: waste: Call resolution	Customer numbers with dual service weighting for each of the six customer types	Reflects the most appropriate basis for allocating costs as we do not record customer type for this work
Customer services	Network customer enquiries and complaints: water: Schedulers	Customer numbers with dual service weighting for each of the six customer types	Reflects the most appropriate basis for allocating costs as we do not record customer type for this work
Customer services	Network customer enquiries and complaints: water: Investigation	Customer numbers with dual service weighting for each of the six customer types	Reflects the most appropriate basis for allocating costs as we do not record customer type for this work

Appendix 6

Measured and unmeasured split

In prior years costs between water-only, wastewater-only, and water and wastewater customers were split based on customer numbers (including dual service weighting); the following therefore refers to the allocations between household measured and unmeasured customers only. In accordance with the latest RAG guidance the Measured / Unmeasured splits are no longer required in preparing the APR tables.

Debt management	Debt collection agency (DCA) charges	Number of accounts referred to DCAs by customer type split by debt outstanding for more than 30 days	Enables an accurate allocation of DCA costs
Debt management	Debt Management Postage	Printing and postage charges (excluding billing) for each customer type	Reflects the cost of postage incurred in contacting customers
Debt management	Commissions payable to other water companies	Customer numbers (with dual service weighting)	We do not have access to other water companies' customer data thus we make the assumption that their proportion of customer types is similar to ours.
Debt management	Council commissions	Affordability Team staff time spent on each customer type	Distribution of measured and unmeasured customer types for which council commissions are payable is assumed to be in line with the work of the Affordability team whose work is focussed on similar customer groups.
Doubtful debts	Doubtful debts charge excluding Local Authorities	Write-offs	Direct attribution to customer types
Doubtful debts	Doubtful debts charge for Local Authorities	Write-offs excluding non-household	Assumes local authority household metered and unmetered property proportions are in line with the rest of our household customers.
Meter reading	Meter reading (includes cost of Motor Vehicles)	100% performed for metered customers	Does not apply to unmetered customers
Other operating expenditure	Other direct costs	Customer numbers (with dual service weighting)	As per RAG 2.08 guidance
Other operating expenditure	General and support (excluding Motor Vehicles)	Customer numbers (with dual service weighting)	As per RAG 2.08 guidance
Other operating expenditure	Other business activities	Customer numbers (with dual service weighting)	As per RAG 2.08 guidance

In accordance with the RAG 2.09 it states that retail costs are split into six customer groups split measured and unmeasured, however since the start of AMP7 there are no longer any Retail APR tables where this data is required