

Accounting Separation Methodology Statement

Upstream Services YW 2014/15

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Blueprint for Yorkshire



YorkshireWater

Accounting Separation Methodology Statement

Upstream Services Split - Yorkshire Water
2014/15

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1. Introduction

1.1 Purpose

As part of a trial Ofwat require water companies to publish additional information about their costs in delivering the less customer-facing 'upstream' services they deliver.

The upstream split of the 2014/15 total operating costs line has been completed in line with the Accounting Separation Methodology Statement. In order to reflect the extended Regulatory Accounting Guidelines (RAGs), including Network Plus categories, this statement shows for each service:

- The Ofwat definition.
- YW methodology and assumptions.
- Volumes / drivers used for unit costing (where possible YW has used drivers linked to PR14 tables or CCC tables).

Where possible the most appropriate cost driver has been used. Where this has not been feasible the next best available measure has been used.

A year on year comparison of costs by service is included in section 3.

1.2 Scope

- This document is limited to the upstream services of the appointed business of YW.
- It has been prepared in accordance with the following documents published by Ofwat:
 - Information Notice (IN) 13/01 'Revised regulatory reporting requirements for 2012-13 and onwards' which includes:
 - i) RAG4.04 'Guideline for the definitions for the regulatory accounting tables'
 - IN 14/05 'Expectations for company reporting 2013-14 – regulatory accounts, accounting separation and performance information' which includes:
 - i) 'Disclosure requirements for companies' accounting separation and upstream services data methodology statements 2013-14'; and
 - ii) 'Accounting separation guidance clarifications'.
 - iii) Best practice guidance – Upstream services methodology statement disclosures
 - IN 15/01 'Future company performance reporting and assurance' in which Ofwat have set out that for the financial year 2015/16 and onwards the requirements for reporting will change. A review has been undertaken of the new requirements and a plan is place to deliver the changes required.

1.3 Changes in methodology

The cost driver for sludge transport has been changed from cubic metres to tonnes of dried solids. This is due to this being a more appropriate cost driver as it is a like for like measure that can be used for both sludge liquid and sludge cake transportation.

The cost driver for IRC within Wholesale water has been changed. This is explained in more detail in section 4.1

2. Wholesale Water

2.1 Abstraction Licences

2.1a Ofwat definition

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.

2.1b YW methodology and assumptions

Abstraction licence costs payable to the Environment Agency are held on a separate general ledger code within the accounting system SAP.

Other costs included are salaries and related costs of dealing with new negotiations. No time was spent on this activity by the Water Resources Planning Team during 2014/15. A review of this team's salary costs takes place each quarter, and this will identify if any time should be allocated to this service in the future.

2.1c Volumes / drivers used for unit costing

Number of licences.

2.2 Raw water abstraction

2.2a Ofwat definition

Start: none.

End: supply of raw and partially treated (non-potable) water through a pump or gravity fed through a valve into the raw water distribution system.

The water abstraction service includes activities related to the identification of new sources, including catchment management, licence management, and the abstraction infrastructure.

Pre-treatment processes can vary, from a relatively simple physical separation of the largest impurities, to more complex chemical treatments, depending on the source of abstraction and on the type of treatment plant to which the raw water is transferred. Therefore, it seems appropriate to combine activities related to abstraction and pre-treatment within the same service. Moreover, any transport from the water abstraction site is included within the abstraction service, although these costs are expected to be very small. For example, transport between reservoirs where both reservoirs have an abstraction licence is considered to be part of the raw water abstraction service. However, transport which occurs between a reservoir with an abstraction licence and a reservoir/storage tank without an abstraction licence would be considered to be part of the raw water transport service. The activities relating to the inspections, operation and maintenance of impounding reservoirs are included in this service.

All activities related to planning are to be included in 'water abstraction' and it is only the administrative costs involved in obtaining the licence and the cost of the licence itself that should be included in the 'water licence' service.

2.2b YW methodology and assumptions

The Yorkshire Water (YW) costing structure is set up in such a way that the cost centres within the accounting system SAP reflect the definition, although not all costs are posted to resource type level. It is assumed that impounding reservoirs are under raw water abstraction. All YW impounding reservoirs have abstraction licences either individually, or as a group e.g. those in the Washburn Valley.

Current Cost Depreciation (CCD) in this service is the figure identified for Water Resources in the Regulatory Accounts as no further subdivision is required.

2.2c Volumes / drivers used for unit costing

Megalitres abstracted is used as a cost driver for total abstraction costs. No split by resource type is available as not all costs are posted at this level.

2.3 Raw water transport

2.3a Ofwat definition

Start: raw and partially treated (non-potable) water that has been pumped or gravity fed through an outlet valve.

End: raw and partially treated (non-potable) water entering treatment works or raw water storage facilities or being delivered to the end customer or to a third party water company.

This service includes the activities related to transporting the raw water from the boundaries of the abstraction site to a treatment plant, a raw water storage facility, or to large industrial customers that require untreated water in their production processes.

The activities allocated to this service include primarily the development and maintenance of the physical raw water transport network.

2.3b YW methodology and assumptions

The YW costing structure is set up in such a way that the cost centres within the SAP system reflect the definition of raw water transport.

In line with operating costs, CCD relating to en-route storage reservoirs has been moved to raw water storage. The remaining raw water distribution CCD is classified as raw water transport. The Infrastructure Renewals Charge (IRC) figure identified as relating to raw water distribution in the regulatory accounts has been apportioned between transport and storage on the basis of CCD.

2.3c Volumes / drivers used for unit costing

For length of main, the number of kilometres of raw water aqueducts is used as a cost driver. This measure was also used for PR14 table W5.

2.4 Raw water storage

2.4a Ofwat definition

Start: raw water and partially treated (non-potable) water entering the storage facility.

End: raw water and partially treated (non-potable) water pumped or gravity fed out of the storage facility.

This service includes activities related to the construction, operation and maintenance of raw water storage facilities. In general, no transport costs should be allocated to this service, since the cost of transport should be included within the 'raw water transport' service. Reservoirs that do not have an abstraction licence attached to them and are used to

store raw water should be included under raw water storage. Associated activities, such as control of the inflow to prevent overfilling and outflow (which ensures continuity of availability of supply) and planned and emergency drawdown and discharge facilities (with associated permitting) should also be included in this service. Activities related to determining losses due to leakage and to ensuring security of the site from contamination are also expected to be included.

2.4b YW methodology and assumptions

The YW costing structure is set up in such a way that the cost centres within the SAP system reflect the definition of raw water storage.

In line with operating costs, CCD relating to en-route storage reservoirs has been moved to raw water storage. The IRC figure identified as relating to raw water distribution in the regulatory accounts has been apportioned between transport and storage on the basis of CCD. This has resulted in a small allocation to raw water storage.

2.4c Volumes / drivers used for unit costing

The number of reservoirs has been used as a cost driver. Volume data (maximum contents) is not available for all en route storage reservoirs, so this has not been used.

2.5 Water treatment

2.5a Ofwat definition

Start: input of raw and partially treated (non-potable) water from raw water distribution system into treatment plant.

End: discharge of treated water through a pump or gravity fed into the treated water distribution network.

This service includes all the activities involved in the treatment of raw water, including both chemical and physical treatment. This also includes activities within the treatment plant.

The water treatment process may result in the production of sludge. In such cases, an appropriate share of the costs incurred during treatment and/or disposal of this sludge should be allocated to the water treatment service, regardless of whether the treatment and disposal of this sludge occurs at the water treatment or at the sludge treatment plant.

2.5b YW methodology and assumptions

Not all costs are posted to individual treatments works, for example salary costs are posted at service level. Provision of unit costing for individual works or at large / small works type is therefore not currently available

2.5c Volumes / drivers used for unit costing

Total megalitres per day input to distribution from all water treatment works has been used as a cost driver. This data is also used for CCC table 10.

2.6 Trunk and local treated water distribution

2.6a Ofwat definition

Trunk

Start: treated (potable) water that has been pumped or gravity fed into the treated water distribution network.

End: input of treated (potable) water into local distribution network or delivered to a third party company.

Trunk treated water distribution assets are strategic, that is, they are important or essential to the supply of water across the company area.

Trunk treated water transport includes activities related to transporting treated water from the treatment works to local distribution areas including secondary disinfection and other chemical dosing. This service includes all trunk network repair and maintenance activities, as well as activities associated with any new network development. In addition to directly attributable costs, other activities that might need to be considered within this service may include the provision and maintenance of storage towers and reservoirs and ancillaries such as booster pumps, pressure reduction, hydrants, air release valves, washouts and flow measurement

Local

Start: discharge of treated (potable) water within a district metered area (DMA).

End: supply of treated (potable) water to retail customer.

Local treated water distribution assets are local assets serving the immediate, or a restricted, area.

Local treated water distribution includes the activities related to distributing treated water to customers within DMAs including secondary disinfection and other chemical dosing. This service includes all distribution network repair and maintenance activities, as well as the activities associated with any new network development.

Other activities that may be considered within this service include the provision and maintenance of district and customer meters, storage towers and reservoirs and ancillaries such as booster pumps, pressure reduction, hydrants, air release valves, washouts and flow measurement.

2.6b YW methodology and assumptions

The YW costing structure is set up such that treated water distribution costs are at the level of Treated Water Transmission Section (TWT). Each section contains both above and below ground assets with no split between trunk treated water transport and local treated water distribution. Some larger assets, e.g. Grid Pumps, do have their own cost centre.

In order to complete the upstream services table the above and below ground assets within each TWT were assigned to either trunk or local with the following assumptions being made.

Above Ground Assets

The following types of assets were split between trunk and local.

Water Pumping Stations (WPS)
Water Towers (WTR)
Service Reservoirs (SRE)
Critical Supply Reservoirs (CRE)

The treated water storage assets (towers, services reservoirs and critical supply reservoirs) could be either trunk or local – but only a small number are deemed by operational colleagues to be local. Therefore all treated water storage costs have been dealt with as trunk.

Water pumping stations could be deemed to be either trunk or local so an exercise has been carried out to determine of the operational Water Pumping Stations into which category they belong. Power costs by metered supply have been assigned based on this data. Other costs such as maintenance have been split pro rata.

There is no specific field in the asset database to identify whether treated water distribution assets relate to trunk or local mains. However CCD is only found on above ground assets within this business unit, and the CCD value has been allocated in a consistent manner to operating costs.

Below Ground Assets

Below ground assets within the YW Asset Inventory System have a flag attached to them, indicating whether they are 'Main Treated' or 'Distribution Management Area' For the purposes of the 2014/2015 return, 'Main Treated' assets have been classed as trunk and 'Distribution Management Area' as local.

Based on this assumption, analysis of main repair costs via the Work Management System (WMS) suggests that very little is coded to trunk mains. Analysis of job data shows that repair jobs are very rarely raised against the trunk main but to the distribution management area within which the trunk main is located (therefore coded to local). If an assumption is made that bursts on these types of assets tend to be major and are usually coded to Capital then this does not cause a problem. However, if this is not the case, a split of costs between trunk and local is not currently available unless a change is made to the business process of how jobs are raised within the WMS.

The leakage 'proactive find and fix' activity on mains is dealt with differently from that mentioned above but does not cause any problems in relation to the split between trunk and local as detailed below.

- The find activity is carried out by both external contractor and by YW staff. Very little proactive leakage work is done on trunk mains so all contract costs and salary allocations for the leakage team have been allocated to local.
- The fix activity is not coded to the treated water transmission section but to area based codes. Few of the repairs carried out are as a result of find activity on trunk mains so all repair costs have been allocated to local.

The IRC figure identified as relating to treated water distribution in the regulatory accounts has been apportioned between trunk and local distribution on the basis of CCD.

Repairs to trunk mains are more likely to be capital in nature and this means a large proportion of the IRC value relates to trunk treated distribution.

2.6c Volumes / drivers used for unit costing

The length of main has been used as a cost driver on the assumption that mains $\geq 320\text{mm}$ are trunk mains and that communication pipes and mains $< 320\text{mm}$ are local. This information was also used for PR14 table W5.

3. Wholesale Wastewater

3.1 Foul sewage collection and Surface / Highways drainage

3.1a Ofwat definition

Foul

This service includes the activities related to collection of foul sewage from customers' properties. 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.

Surface

This service includes the activities related to the collection of surface water from exterior areas of customers' properties. 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.

Highways

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.

3.1b YW methodology and assumptions

YW splits its sewage collection assets into four categories, foul, surface water, highways and combined. However from a costing perspective, sewage collection costs are held on cost centres at drainage area zone (DAZ) level for both above and below ground assets with no split between foul, surface, highways or combined.

An exercise was carried out in 2013/14 to look at sewer lengths in each of the three 'Network plus' categories. The first table below shows the asset data which has been reported from YW's asset system and aligns with how costs are collected. The second table below shows the derived split for foul, surface and highways.

Split by function, as recorded in YW mapping system

Function	Length, kilometres	Split by function, %
Combined	16,694	56%
Foul	5,974	20%
Surface water	7,140	24%
Total	29,808	100%

Allocation to Network plus definitions

Derived cost driver	Length, kilometres	Split by function, %
Foul = Combined + foul	22668	32%
Surface water = Combined + surface water	23834	34%
Highways drainage = Combined + surface water	23834	34%
Total	70336	100%

Above Ground Assets

YW's operational (non-terminal) stations are categorised as foul, surface or combined. No pumping stations have been identified specifically under the highways drainage category.

Power costs have been booked direct to appropriate service (ie. foul, surface) with the costs attributed to combined being split foul 32%, surface 34% and highways 34% - see table above.

All other costs have been split foul 32%, surface 34% and highways 34%.

In line with the treatment of operating costs, CCD relating to sewage pumping stations has been apportioned based on the relative number of operational foul, surface water and combined pumping stations.

CCD on all assets carrying combined flows have been split foul 32%, surface 34% and highways 34% - see table above.

Below Ground Assets

Repair and maintenance work (cyclical or reactive) is carried out by contractors on jobs raised via the WMS (job costing). Costs are collected at drainage area zone level only.

Costs have been allocated as follows - foul 32%, surface 34% and highways 34% - see table above.

The IRC has been apportioned between foul and surface water and highways sewage collection on the basis of CCD.

3.1c Volumes / drivers used for unit costing

YW does not collect data on peak daily flow and only have data on volume of sewage collected (daily average) but this data is not split between foul, surface and highways. No data is available in respect of permeable area drained. For these reasons the cost driver used is sewer length based on allocation to network plus definitions (see table above).

3.2 Sewage treatment and disposal

3.2a Ofwat definition

Start: sewage arriving at the boundary of sewage treatment works.

End: discharge of treated wastewater to receiving watercourse and discharge of sludge from sewage treatment works into pipework or holding tanks for transport to sludge treatment processes.

This service includes all the activities related to the treatment and disposal of sewage. This includes the costs of development, repair and maintenance of treatment plants and sludge holding tanks, as well as any intra-plant transport required.

3.2b YW methodology and assumptions

Not all costs are posted to individual sewage treatment works treatments works, for example salary costs are posted at service level. Provision of unit costing for individual works or at large / small works type is therefore currently available.

3.2c Volumes / drivers used for unit costing

The cost driver used is equivalent population served (number of residents).

3.3 Sludge transport

3.3a Ofwat definition

Start: point of discharge of sludge from holding tanks or sewage treatment process into pipework or tankers for transport to sludge treatment processes.

End: input of sludge into sludge treatment works.

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

3.3b YW methodology and assumptions

Transport costs are held in two places within YW's costing structure. The largest element of cost is held under the Product, Logistics and Recycling team but costs are also assigned to individual works managers codes.

It is assumed that both liquid sludge and cake movements are included under transport.

Transport costs within individual works manager's cost codes are difficult to identify as they are included within costs associated with other general types of hired and contracted services. Therefore these costs have not been included under sludge transport.

Sludge transport assets include vehicles used in the transport of sewage sludge from one site to another, and also equipment found at treatment facilities used in loading such vehicles, for example tanker loading pumps.

3.3c Volumes / drivers used for unit costing

Tonnes of dried solids is now used as this covers both liquid sludge and cake transportation. This is a change in the cost driver from previous years.

3.4 Sludge treatment

3.4a Ofwat definition

Start: storage of sewage sludge in holding tanks and input into sludge treatment sites.

End: point at which the treated sludge is collected for disposal.

This service includes all the activities related to sludge treatment. While different technologies exist for sludge treatment, sludge treatment is defined as a technology-neutral service for the purpose of accounting separation.

3.4b YW methodology and assumptions

The YW costing structure is set up in such a way that the cost centres within the SAP system reflect the definition of sludge treatment. Not all costs are posted to sludge treatment facility, for example salary costs are posted at service level. Provision of unit costing for individual works or at large / small works type is therefore not currently available.

CCD in this area relates to assets at sludge treatment facilities, excluding equipment used in loading sludge tankers, which is contained within sludge transport.

3.4c Volumes / drivers used for unit costing

Total sewage sludge produced in tonnes of dried solids as a pre-treatment weight has been used as the cost driver. This is a measure that is available on CCC table 15.

3.5 Liquor treatment

3.5a Ofwat definition

Start: pipework from sludge treatment process to liquor treatment plant or sewage works.

End: discharge of treated liquor to receiving watercourse.

Includes all activities in transporting and treating liquors generated during the sludge treatment process. The liquors may be treated either on site at a sludge treatment plant or at a sewage treatment plant.

3.5b YW methodology and assumptions

A small proportion of direct costs are allocated to this activity as most of the liquor is gravity returned to the front in-let of a sewage treatment works and therefore incurs very little cost

Salary costs are posted at service level based upon management assessment and power costs are a split of whole site costs based on management assessment of power usage on liquor treatment.

CCD in this area is for liquor pumps and inter-process pipework used to transfer sludge liquor back into the sewage treatment process.

3.5c Volumes / drivers used for unit costing

Ofwat's guidance of volume and strength (kg NH₄-N/day) is not recorded by YW and we do not have an alternative unit of measurement.

3.6 Sludge disposal

3.6a Ofwat definition

Start: point at which the treated sludge is collected.

End: sludge disposed.

This service includes all the activities related to the storage and disposal of treated sludge, regardless of the method of disposal. The most commonly used sludge disposal methods include land spreading, ash from incineration, landfilling, forestry, land reclamation and combustion.

3.6b YW methodology and assumptions

The YW costing structure is set up in such a way that the cost centres within the SAP system reflect the definition of sludge disposal. Not all costs are posted at site level, for example salary costs are posted at service level. Provision of unit costing for individual works or at large / small works type is therefore not currently available.

3.6c Volumes / drivers used for unit costing

Total sewage sludge disposal in tonnes of dried solids as a pre-treatment weight used as this figure is available on CCC table 15.

4. Year on year comparison

The following tables show the year on year percentage movement for each service. Where the percentage movement is in excess of 10% an explanation is provided.

4.1 Wholesale Water

Percentage Movement 2013/14 - 2014/15							
Abstraction Licence	Raw Water abstraction	Raw water transport	Raw water storage	Water Treatment	Trunk treated water distribution	Local treated water distribution	
Total operating costs	0%	47%	-9%	8%	1%	-12%	-5%

- The increase in raw water abstraction and the decrease in trunk treated water distribution is due to a change in the methodology for apportioning the IRC. The IRC across the business units was revised so that the charge was apportioned across all categories based on the closing net book value of infrastructure assets. Previously it was apportioned specifically to raw water distribution, treated water distribution and sewage collection.
- It is considered that the new apportionment methodology is more appropriate as the previous assumption used was that the IRC applied only to assets in the raw water distribution, treated water distribution and sewage collection business units as this is where the largest value of infrastructure renewals expenditure is incurred, i.e. on water mains and sewers.
- There is still some infrastructure renewals expenditure in other business units however, for example relating to impounding reservoirs in the water resources business unit which has a significant infrastructure asset value. Therefore it was decided that this should be reflected in the allocation of the IRC by allocation across all business units according to their infrastructure asset value.

4.2 Wholesale Wastewater

Percentage Movement 2013/14 - 2014/15								
Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge transport	Sludge treatment	Liquor treatment	Sludge disposal	
Total operating costs	3%	-26%	-27%	0%	1%	3%	-13%	-13%

- The reduction on surface water and highway drainage is due to current cost depreciation being lower in 2014/2015 in comparison to 2013/2014 because the 2013/2014 figure contained a larger amount of accelerated depreciation on assets that had been written off in the year. This in itself was due to cross-checking the current cost asset register against the company's separate operational asset register and writing off any assets that had been physically disposed of. A significant element of these assets were in the sewage collection business unit.
- The reduction in liquor treatment equates to a change of £100k which is due to a reduction in salaries and overheads charged to this service based upon management assessment and also a reduction in the amount of electricity consumed.
- Sludge disposal has seen a reduction in costs due to-
 - a change in the allocation of salaries on scientific services, with the individual water and waste water teams being allocated separately rather than as a combined team as was the case in the 2013/2014 submission.
 - Chemicals incorrectly coded to sludge disposal in 2013/2014.
 - Maintenance costs at one of our sites being coded to sludge disposal in error in 2013/2014, now correctly allocated to Sludge Treatment.

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