

UPSTREAM SERVICES STATEMENT 2013-14

**Table, Methodology and
Commentary**

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Wholesale water		Network plus						
		Water resources		Raw water distribution		Water treatment	Treated water distribution	
		Abstraction licence	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Trunk treated water distribution	Local treated water distribution
Total operating expenditure	£m	31.0	15.5	5.1	0.1	54.4	17.7	32.3
IRC	£m	-	1.4	0.7	-	-	17.5	15.6
CCD	£m	-	4.9	0.1	2.5	34.5	19.1	17.3
Total operating costs	£m	31.0	21.8	5.9	2.6	88.9	54.3	65.2
Total BU operating cost	£m	52.8		8.5		88.9	119.5	
Cost drivers		MI	ML/day	ML/day	ML/day	ML/day	km	km
Unit Costs		40	55	15	7	223	11,495	3,121

Wholesale wastewater		Network plus							
		Sewage collection			Sewage treatment	Sludge treatment			Sludge disposal
		Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge transport	Sludge treatment	Liquor treatment	Sludge disposal
Total operating expenditure	£m	8.2	13.5	7.3	38.6	5.3	8.0	1.1	2.3
IRC	£m	4.2	6.7	3.8	0.9	-	-	-	-
CCD	£m	3.1	5.2	2.8	51.6	0.2	15.6	-	0.1
Total operating costs	£m	15.5	25.4	13.9	91.1	5.5	23.6	1.1	2.4
Total BU operating cost	£m	54.8			91.1	30.2			2.4
Cost drivers		km			BOD kg/day	tds	tds	tds	tds
Unit Costs		3,348			497	73	311	15	32

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INTRODUCTION

The operating cost and current cost depreciation (CCD) analysis of upstream services has been produced as an integral part of the process of preparing tables 2 and 3 of Section B to the Northumbrian Water Limited (NWL) Regulatory Accounts 2013-14. The methodology for the production of tables 2 and 3 is set out in the document 'Accounting Separation Methodology 2013-14' available on NWL's website (www.nwl.co.uk).

This upstream services methodology sets out the further analysis carried out to produce the upstream services cost analysis table above. The accounting separation methodology, including changes made from the prior year, is not repeated in this document.

OPERATING EXPENDITURE

Direct costs can usually be identified as belonging to the service for which they are used rather than the boundary in which they sit. Where this is not possible the following allocations have been used:

- Water distribution mains costs have been allocated between trunk and local distribution based on the size of mains.
- Water pumping station power costs are allocated on a site by site basis to either local and trunk water distribution.
- Sewer network costs are allocated between foul, surface water drainage and highway drainage using lengths of foul, storm water and combined sewers and their estimated capacities.
- Sludge liquor treatment costs have been calculated using the COD values of the return liquors as a proportion of the total COD entering the sewage treatment works.

The allocation of general and support expenditure costs allocations follow the methodology set out in the 'Accounting Separation Methodology 2013-14'.

INFRASTRUCTURE RENEWALS CHARGE (IRC)

The IRC is taken from note 2 to Section B of the NWL Regulatory Accounts. The water distribution and sewage collection charges are further allocated across the upstream services on a pro-rata basis using CCD.

CCD

Fixed assets directly involved in the activity streams of each business unit have been recorded in that activity stream in line with Regulatory Accounting Guideline (RAG) 4.04. Where the assets have been used by more than one business unit, CCD has been recorded in the primary business unit, in accordance with RAG 4.04, and partially recharged to other business units based on usage, following the methodology set out in the 'Accounting Separation Methodology 2013-14'.

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The following assumptions have been made to allocate CCD over the activity streams where the use of the asset is not clear:

- Treated water distribution - water mains have been allocated between trunk and local water main with the storage reservoirs being allocated to the trunk mains. Pumping stations have been directly allocated to trunk or local distribution as appropriate.
- Sewage collection - sewer network has been allocated between foul, surface and highway drainage, reflecting that large parts of the network are combined.
- Sludge treatment - sludge transport covers the cost of the sludge vehicles only.
- Liquor treatment - NWL does not have any specific liquor treatment plants as all the sludge treatment plants are on sewage treatment works and any liquors are mixed with returns from the treatment process and recirculated back into the works.

CHANGES IN COSTS DURING THE YEAR

Costs in the upstream services analysis for 2013-14 have been compared to the equivalent costs for 2012-13, inflated by the average year RPI of 2.86%. Significant year on year movements of greater than 10% are explained below.

OPERATING COSTS – WATER

Abstraction licence costs have increased significantly from the previous year as the licence costs associated with the Tees industrial raw water system (£8m) were reported as raw water transport costs in 2012-13 but have been reported as abstraction licences in 2013-14. Raw water transport costs have shown a corresponding reduction.

Raw water abstraction costs are up by 11% due to higher bulk supply costs and higher power costs due to electricity prices and increased pumping relating to Abberton reservoir.

Trunk and local distribution costs have increased due to the reallocation of customer tap samples from retail services to wholesale water and the impact of higher power prices.

OPERATING COSTS – WASTEWATER

Liquor treatment costs have increased as a result of higher power prices and a consequent higher allocation of general and support costs.

Sludge disposal costs have decreased due a significant reduction in the price per tonne and a reduction in volumes, due to the full year impact of the new advanced anaerobic digestion process at Howdon sewage treatment works.

IRC

The total IRC for water and sewerage charges is similar, in real terms, to IRC in 2012-13 and the basis of calculation for the water and sewerage services is unchanged. However, the basis of allocating IRC by activity has been amended slightly in the year.

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Within water, the IRC allocated to water resources and raw water distribution is based on the average infrastructure renewals expenditure (IRE) over the period 2010-2014, rather than the approach applied in previous years which used IRE in the year. The balance is allocated to between trunk and local distribution on a pro-rata basis using CCD.

A similar approach has been taken on sewerage with the charge to sewage treatment based upon the average 2010-2014 spend and the balance charged to sewage collection. The sewage collection charge has been allocated across the foul, surface water and highway drainage services on a pro-rata basis using CCD.

The amended approach has resulted in some year on year movements, though the absolute changes are not significant.

CCD

The change in the methodology for the allocation of shared assets, where assets have been allocated to the principal business unit and then recharged to other business units, has resulted in a number of small changes across the upstream services categories, though the absolute changes are not significant.

COST DRIVERS

The following cost drivers have been applied to calculate the unit costs in the table:

- Abstraction licence – licenced volumes in MI;
- Raw water abstraction, raw water distribution and water treatment – distribution network input, measured as MI per day;
- Treated water distribution – length of the trunk and local water networks, measured in km;
- Sewage collection - costs have been aggregated and driver is the total length of the sewerage network, excluding transferred private sewers;
- Sewage treatment – loads into sewage treatment works, measured as kg of BOD per day;
- Sludge treatment – volume of sludge produced, measured as tonnes of dried solids of sludge.