Annual Performance Report 2017/18

Part 4 – Additional regulatory information

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4A – Non-financial information for the year ended 31 March 2018

	Unmeasured 000's	Measured 000's
Retail - household		
Number of void households	39.869	19.719
Per capita consumption (excluding supply pipe leakage) l/h/d [1]	160.56	131.99
Wholesale - volume	**Water Ml/d**	**Wastewater Ml/d**
Bulk supply export	310.265	0.071
Bulk supply import	19.023	-
Distribution input [2]	815.199	

[1] In 2017/18, we made a material change to our process. Measured household volumes are now based on meter readings from the billing system. In previous years, measured volumes were based on income (revenue) received from the regulatory accounts. This change provides more consistency with the measurement of other water balance components, particularly Distribution Input.

[2] Distribution Input has increased naturally as more water has been put into supply. There has been no material change to the process to determine this component.

4B – Wholesale totex analysis for the year ended 31 March 2018

	Ref	Current year Water £m	Current year Wastewater £m	Cumulative 2015-20[1] Water £m	Cumulative 2015-20[1] Wastewater £m
Actual totex	**2B**	**346.654**	**315.789**	**891.257**	**841.504**
Items excluded from the menu					
Third party costs	**2B**	10.126	0.117	34.100	0.375
Pension deficit recovery payments	**2B**	3.468	2.535	7.763	5.237
Other 'rule book' adjustments		-	-	-	-
Total items excluded from the menu		**13.594**	**2.652**	**41.863**	**5.612**
Transition expenditure		**-**	**-**	**0.751**	**1.485**
Adjusted actual totex	**4D,4E**	**333.060**	**313.137**	**850.145**	**837.377**
Adjusted actual totex base year prices *(Line 8)*		296.431	278.699	778.216	767.441
Allowed totex					
Allowed totex based on final menu choice – base year prices *(Line 9)*		**239.471**	**272.812**	**729.445**	**830.759**

[1] The cumulative figures shown have been reported in outturn prices.

Total difference between adjusted actual totex (line 8) and allowed totex based on final menu choices (line 9) at outturn prices	Current Water	Current Wastewater	Cumulative Water	Cumulative Wastewater
Opex	12.9	(9.4)	0.9	(31.1)
Opex IRE adjustment	61.1	26.0	97.5	59.3
Total adjusted opex	**74.0**	**16.6**	**98.4**	**28.2**
Capex	51.1	16.0	57.1	(33.8)
Capex IRE adjustment	(61.1)	(26.0)	(97.5)	(59.3)
Transition expenditure	-	-	(2.1)	(2.1)
Total capex	**(10.0)**	**(10.0)**	**(42.5)**	**(95.2)**
Total difference	**64.0**	**6.6**	**55.9**	**(67.0)**
Total difference (base year prices)	**57.0**	**5.9**	**48.8**	**(63.3)**

4B – Wholesale totex analysis for the year ended 31 March 2018 (continued)

Capex Water

	2015/16 £m	2016/17 £m	2017/18 £m	Cumulative £m
Reprofiling of the programme of works:				
Resources: Fish screen installation has been delayed until 2018/19 and the expenditure has been reprofiled to ensure that the outcomes will be achieved by the end of the AMP.	(10.3)	(1.9)	2.0	(10.2)
Water Resource Management Plan: Spend position has been reprofiled for years 4 and 5 for delivery of zonal demand study findings.	(3.1)	(1.8)	(1.7)	(6.6)
Water Treatment Work maintenance: year 1 overspend against budget was as a result of expenditure planned for future years.	4.3	(2.3)	5.6	7.6
Safety and Acceptability of Water, Distribution Mains Clusters and Truck Mains: zonal study work is now well underway and we have recovered our position from Year 1, as a result of studies in this area.	(11.3)	11.3	-	-
WTW Quality: ground conditions at Bryn Cowlyd WTW were resolved in year 2.	(2.2)	2.2	-	-
Over/under spends on the programme:				
Resources: increased cost to deliver Prioress Mill Water Pumping Station as a full rather than partial upgrade which was originally profiled to deliver in AMP7.	-	-	2.2	2.2
Safety and Acceptability of Water, Distribution Mains Clusters and Trunk Mains: An increased programme of works has been undertaken, informed by studies undertaken in year 1 which have informed more effective and efficient targeted expenditure.	-	2.4	21.4	23.8
Water Treatment Work quality: Additional Costs are being incurred at Bryn Cowlyd WTW due to ground conditions, and at Tynywaun WTW due to raw water quality requiring additional treatment than was originally planned, to meet water quality standards.	-	4.0	4.1	8.1
Impounding reservoirs and Service Reservoirs: changes to legislation will require an increased spend to address a higher number of assets including service reservoirs now under the Act. The Act has also been amended to include measures in the interest of maintenance and new requirements for draw down and spillways.	-	5.3	3.5	8.8
Leakage: alignment for industry aligned reporting, continued additional work to meet performance targets.	4.9	2.2	3.7	10.8

4B – Wholesale totex analysis for the year ended 31 March 2018 (continued)

	2015/16 £m	2016/17 £m	2017/18 £m	Cumulative £m
Abstractions: lessons learnt from a water quality failure resulted in the abandonment of an abstraction as part of the programme.	-	1.2	1.0	2.2
Service reservoirs: An increased storage capacity in the Hereford catchment was undertaken	-	-	1.9	1.9
Network Ancillary Assets: increased due to spend on maintenance.	-	5.2	4.3	9.5
Bulk Meters Pressure release value and Air values: spend delayed in order to support the additional spend on Network ancillary assets.	-	-	(2.7)	(2.7)
Water element of Cross Service: Includes additional costs for IT systems upgrade (including automation telemetry and control), visitor centre upgrades and improvement of Health and Safety at works.	-	-	7.4	7.4
Other	(0.4)	(3.7)	(3.8)	(7.9)
Total	**(18.1)**	**24.1**	**48.9**	**54.9**
Difference due to final determination menu	-	-	2.2	2.2
Total difference to final determination	**(18.1)**	**24.1**	**51.1**	**57.1**

4B – Wholesale totex analysis for the year ended 31 March 2018

Capex wastewater

	2015/16 £m	2016/17 £m	2017/18 £m	Cumulative £m
Reprofiling of the programme of works: Continuous and Intermittent: six water course discharge schemes are being discussed with NRW to find a more effective solution expected delivery 2017, 2018 and 2020. Reprioritised the programme of works in line with Water Framework Directive delivery deadline of 2020.	(22.8)	(14.2)	(9.5)	(46.5)
Over/Underspend against the programme Sludge Schemes: Five Fords and Treborth Sludge schemes were delayed in years one and two whilst the North and South Wales Sludge Strategies were being agreed. Delivery of the Sludge strategies is to be undertaken in years three to five.	(7.1)	(1.5)	8.6	-
Sludge schemes: implementation of South wales Sludge strategy.	-	-	9.6	9.6
Sewer Network Maintenance: additional expenditure for Sewer Network Maintenance.	-	1.7	2.2	3.9
Network Intermittent Discharge and Outfalls: accelerated programme to meet regulatory environmental commitments and additional expenditure for the Loughor estuary L2 driver.	-	8.6	11.9	20.5
Waste water treatment works maintenance: Funds have been reallocated to support the North Wales Sludge strategy.	-	-	(1.0)	(1.0)
Private sewers and pumping stations assets transferred are generally in better condition than anticipated, less remedial work required. NB. 75% of the private pump station asset base has been surveyed as of March 2018 and 7% of the mapped transferred sewers and lateral drains have been surveyed.	(9.9)	(3.0)	0.7	(12.2)
Sewage Pump Stations: additional expenditure on Cardiff Western District Pump station that was not previously in the programme.	-	-	0.3	0.3
Wastewater element of Cross Service: Addition cost for IT systems in preparation for the phase 2 market opening, Energy saving and development schemes.	-	-	12.8	12.8
Other	(4.0)	2.4	(5.5)	(7.1)
Total	**(43.8)**	**(6.0)**	**30.1**	**(19.7)**
Difference due to final determination menu.	-	-	(14.1)	(14.1)
Total difference to final determination	**(43.8)**	**(6.0)**	**16.0**	**(33.8)**

4B – Wholesale totex analysis for the year ended 31 March 2018

Opex water	2015/16 £m	2016/17 £m	2017/18 £m	Cum £m
Renegotiation of the NRW service charge	(1.3)	(1.6)	(1.8)	(4.7)
Rates refund received after challenging the 2005 water network assessment	(20.0)	-	-	(20.0)
Net power difference: increased hydro income and reduced energy usage	(2.2)	(1.7)	(3.3)	(7.2)
Reduced insurance cost	(1.7)	(0.9)	(2.6)	(5.2)
Release of provision regarding billing dispute	-	(2.1)	-	(2.1)
Cumulo rates increase	-	0.9	-	0.9
Water connections increase	-	1.5	2.0	3.5
Transport fleet savings not yet achieved	-	1.6	1.1	2.7
Increase in minor works contract due to increased rates	-	2.3	1.8	4.1
IT increase relating to transitional costs	-	3.2	-	3.2
Water recharged to waste sites	-	-	(1.9)	(1.9)
Atypical costs: Adverse weather during Feb and March	-	-	7.3	7.3
Direct labour increase	-	-	6.7	6.7
Other net cost pressures	3.3	6.7	3.6	13.6
Total opex difference	**(21.9)**	**9.9**	**12.9**	**0.9**

Opex wastewater	2015/16 £m	2016/17 £m	2017/18 £m	Cum £m
Lower expenditure on adoption of pumping stations and private sewers relating in part to synergy savings	(3.0)	(8.1)	(7.0)	(18.1)
Lower chemical usage relation to anticipated opex from capital schemes	(1.7)	(2.4)	(1.6)	(5.7)
Savings from insourcing	(1.0)	-	-	(1.0)
Rates Refund	(4.5)	-	(2.0)	(6.5)
Reduced insurance cost	(1.7)	(0.9)	(2.6)	(5.2)
Net power difference: reduced energy usage offset by reduced income due to delay in capital scheme		(3.8)	(4.0)	(7.8)
IT increase relating to transitional costs	-	2.6	-	2.6
Sludge disposal increase	-	0.9	0.4	1.3
Water recharged to waste sites	-	-	1.9	1.9
Water sludge's recharged to waste	-	-	(0.4)	(0.4)
Other net cost (efficiencies) / pressures	(2.2)	4.1	5.9	7.8
Total opex difference	**(14.1)**	**(7.6)**	**(9.4)**	**(31.1)**

4C – Impact of AMP performance to date on RCV for the year ended 31 March 2018

	Water £m	Wastewater £m
Cumulative totex over/underspend so far in the price control period	55.471	(72.019)
Customer share of cumulative totex over/underspend	27.785	(35.583)
RCV element of customer share of cumulative totex over/underspend	17.807	(34.924)
Adjustment for ODI rewards or penalties	-	-
RCV determined at FD at 31 March	1,738.410	3,730.136
Projected 'shadow' RCV	**1,756.217**	**3,695.212**

The "Cumulative totex over/underspend so far in the price control period" is obtained from the Totex Menu Model from the PR14 Reconciliation rulebook "Totex under/ (over) performance" line 162. This does not include menu exclusions. The "Customer share of cumulative totex over/underspend" is (1- Efficiency Rate) multiplied by the cumulative totex over/underspend in line 1.

The "RCV element of totex over/underspend" is the proportion of the "Totex Adjustment from Rulebook" that is not treated as "pay as you go." This is obtained from "Water/Sewerage: RCV adjustment" line 202 and 203 of the Totex Menu Model from the PR14 Reconciliation Rulebook. These figures are presented at March 2018 prices.

Base year prices	Water £m	Wastewater £m	Total £m
Totex for input to PAYG	729.446	830.759	**1,560.205**
Adjusted actual totex for input to PAYG	778.216	767.441	**1,545.657**
Difference	**48.770**	**(63.318)**	**(14.548)**
Reconciliation rulebook adjustments	1.671	(9.578)	**(7.907)**
Totex adjustment from rulebook	**50.441**	**(72.896)**	**(22.455)**
PAYG rate	68.962%	57.9%	
RCV element of totex underspend (Difference x (1 – PAYG))	15.656	(30.705)	**(15.049)**
RCV element of totex underspend (*March 2018 prices)*	17.807	(34.924)	**(17.117)**

4D – Wholesale totex analysis for the year ended 31 March 2018 – water

	Water Resources			Network+			
	Abstraction licenses £m	Raw water abstraction £m	Raw water transport £m	Raw water storage £m	Water treatment £m	Treated water distribution £m	Total £m
Operating Expenditure							
Power	-	4.369	2.907	0.043	6.046	9.724	23.089
Income treated as negative expenditure	-	(4.408)	(0.074)	(0.019)	(1.088)	(1.151)	(6.740)
Abstraction charges/discharge consents	8.574	0.002	-	-	0.267	-	8.843
Bulk supply	-	0.125	0.026	0.009	0.242	0.551	0.953
Other operating expenditure – renewals expensed in year (infrastructure)	-	15.319	0.111	-	-	45.630	61.060
Other operating expenditure – renewals expensed in year (non-infrastructure)	-	-	-	-	-	-	-
Other operating expenditure – excluding renewals	0.026	7.364	0.542	0.724	31.367	55.561	95.584
Local authority rates and Cumulo rates	-	0.746	0.292	0.048	1.406	12.406	14.898
Total operating expenditure excluding third party services	8.600	23.517	3.804	0.805	38.240	122.721	197.687
Third party services	1.589	5.931	0.516	0.056	0.226	1.229	9.547
Total operating expenditure	**10.189**	**29.448**	**4.320**	**0.861**	**38.466**	**123.950**	**207.234**
Capital Expenditure							
Maintaining the long term capability of the asset – infra	-	(0.543)	-	-	-	22.588	22.045
Maintaining the long term capability of the asset – non infra	-	10.830	0.331	0.053	41.919	26.101	79.234
Other capital expenditure - infra	-	1.294	0.014	-	-	15.066	16.374
Other capital expenditure - non infra	-	8.109	-	0.029	18.102	3.187	29.427
Infrastructure network reinforcement	-	-	-	-	-	0.501	0.501
Total gross capital expenditure (excluding third party services)	-	19.690	0.345	0.082	60.021	67.443	147.581
Third party services	-	0.012	-	0.157	0.219	0.191	0.579
Total gross capital expenditure	**-**	**19.702**	**0.345**	**0.239**	**60.240**	**67.634**	**148.160**
Grants & contributions	-	-	-	-	0.039	12.169	12.208
Totex	**10.189**	**49.150**	**4.665**	**1.100**	**98.667**	**179.415**	**343.186**
Cash expenditure – Pension deficit recovery payments	0.004	0.196	0.032	0.035	1.334	1.867	3.468
Totex including cash items	**10.193**	**49.346**	**4.697**	**1.135**	**100.001**	**181.282**	**346.654**

4D – Wholesale totex analysis for the year ended 31 March 2018 – water (continued)

	Water resources			Network+		
	Abstraction licenses	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution
Unit cost information (operating expenditure)						
Licensed volume available (Ml)	1,682,027.830					
Volume abstracted (Ml)		505,739.420				
Volume transported (Ml)			401,297.490			
Average volume stored (Ml)				269.630		
Distribution input volume (Ml)					295,244.606	
Distribution input – volume (Ml)						297,547.613
Unit cost (£/ml)	***6.058***	***58.228***	***10.765***	***3,193.265***	***130.285***	***416.572***
Population (000s)	3,054.900	3,054.900	3,054.900	3,054.900	3,054.900	3,054.900
Unit cost (£/pop)	3.335	9.640	1.414	0.282	12.592	40.574

Licenced volume available. This is a summation of the annual licenced volume (Ml) per abstraction licence provided by Natural Resource Wales and the Environment Agency in their annual abstraction licence charging sheets. The figure reported for 2017/18 is 1,682,027.83 Ml (2017: 1,679,667.43 ML). In the year, one abstraction licence (Cwrt Gilbert Farm), which was licenced for 745.51 Ml/Yr, was removed. Last year's number should have been 1,682,733 Ml. In the course of preparing this table, it was noted that the licence volume available and associated with two small sites had not been included. This accounts for the difference in the volume of 3,095 Ml.

Volume abstracted. This is a summation of the annual abstraction licence returns (Ml) that are submitted per abstraction licence to Natural Resources Wales and Environment Agency on a financial year basis. Our reported figure for 2017/18 of 505,739.420 Ml includes the Elan valley bulk supply to Severn Trent Water. This is the same approach as taken last year. This year's figure includes an estimate for one abstraction at Llyn Y Fan Fach, due to an ongoing issue with the abstraction meter between 1 December 2017 and 31 March 2018. Our 2016/17 reported figures have been impacted by some improvements made to our methodology and data checks. The figure reported last year of 530,399.825 Ml has now been recalculated as 509,007.33 Ml. The difference is largely due to incorrect data being submitted for one abstraction licence (Lliw reservoir abstraction). In 2016/17, the original reported abstraction for this site was 34,770.54 Ml. This data was calculated using an incorrect flow meter and the correct value for 2016/17 was 7,259.38 Ml. The remainder of the difference is driven by slight changes noted across a number of other licences.

Volume transported. The figure reported this year is 401,297.490 Ml which includes the Elan valley bulk supply to Severn Trent Water. Our 2016/17 reported figures have been impacted by some improvements made to our methodology. The prior year figure of 530,399.825 Ml has now been recalculated as 392,092.25 Ml. The main reasons for this change include:
i) a number of co-located sites were incorrectly included for reporting in 2016/17 which totalled 116,893 Ml;
ii) the abstraction data of 34,770 Ml submitted for Lliw reservoir was calculated using an incorrect flow meter. The correct value should have been 7,259 Ml. This means there was an additional volume of 27,511 Ml incorrectly reported in APR 2016/17; and
iii) some smaller differences noted in volumes transported across a number of other sites which accounts for the remaining discrepancy.

Average volume stored. The data is taken as a summation of the total storage volume available in those raw water reservoirs which do not have an abstractions license or other legal agreements, or have greater than 15 day's storage. There are three reservoirs affected, namely Court Farm, Tynywaun and Canaston Bridge. For Court Farm and Tynywaun reservoirs, the figure is based on the average of daily readings of volume in the year but at Canaston Bridge reservoir we do not have the facility to calculate actual daily storage volumes and so have assumed the maximum capacity at this reservoir. This, however, only accounts for some 25Ml of the 269.630Ml reported.

4E – Wholesale totex analysis for the year ended 31 March 2018 – wastewater

	Network + Sewage collection			Network + Sewage treatment		Sludge			
	Foul	Surface water drainage	Highway drainage	Sewage treatment & disposal	Imported Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	Total
	£m	£m	£m	£m	£m	£m	£m	£m	£m
Operating Expenditure									
Power	3.293	1.081	0.541	18.218	2.259	-	1.122	-	26.514
Income treated as negative expenditure	-	-	-	(0.527)	(0.078)	-	(2.663)	-	(3.268)
Discharge consents	1.058	0.347	0.174	3.426	0.001	-	-	-	5.006
Other operating expenditure – renewals expensed in year (infrastructure)	15.081	7.019	3.900	-	-	-	-	-	26.000
Other operating expenditure – renewals expensed in year (non-infrastructure)	-	-	-	-	-	-	-	-	-
Other operating expenditure – excluding renewals	18.813	4.615	1.927	27.503	1.873	4.723	10.100	4.545	74.099
Local authority rates and Cumulo rates	-	-	-	9.370	-	-	0.537	-	9.907
Total operating expenditure excluding third party services	38.245	13.062	6.542	57.990	4.055	4.723	9.096	4.545	138.258
Third party services	0.052	0.013	0.005	-	-	-	-	-	0.070
Total operating expenditure	**38.297**	**13.075**	**6.547**	**57.990**	**4.055**	**4.723**	**9.096**	**4.545**	**138.328**
Capital Expenditure									
Maintaining the long term capability of the asset – infra	6.270	2.920	1.622	-	-	-	-	-	10.812
Maintaining the long term capability of the asset – non infra	10.472	3.533	1.456	54.238	0.030	0.140	35.518	1.175	106.562
Other capital expenditure - infra	16.823	7.290	3.925	-	-	-	-	-	28.038
Other capital expenditure - non infra	2.188	0.947	0.510	31.433	-	-	0.043	0.001	35.122
Infrastructure network reinforcement	1.823	0.790	0.425	-	-	-	-	-	3.038
Total gross capital expenditure (excluding third party services)	37.576	15.480	7.938	85.671	0.030	0.140	35.561	1.176	183.572
Third party services	0.028	0.012	0.007	-	-	-	-	-	0.047
Total gross capital expenditure	**37.604**	**15.492**	**7.945**	**85.671**	**0.030**	**0.140**	**35.561**	**1.176**	**183.619**
Grants & contributions	5.171	2.202	1.223	0.097	-	-	-	-	8.693
Totex	**70.730**	**26.365**	**13.269**	**143.564**	**4.085**	**4.863**	**44.657**	**5.721**	**313.254**
Cash expenditure – Pension deficit recovery payments	0.696	0.151	0.020	1.260	0.007	0.067	0.267	0.067	2.535
Totex including cash items	**71.426**	**26.516**	**13.289**	**144.824**	**4.092**	**4.930**	**44.924**	**5.788**	**315.789**

4E – Wholesale totex analysis for the year ended 31 March 2018 – wastewater (continued)

	Network + Sewage collection			Network + Sewage treatment			Sludge	
	Foul	Surface water drainage	Highway drainage	Sewage treatment & disposal	Imported Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal
Unit cost information (operating expenditure)								
Volume collected (Ml)	209,613.169							
Volume collected (Ml)		50,501.703						
Volume collected (Ml)			27,719.715					
Biochemical oxygen demand (BOD) (Tonnes)				89,772.110				
Biochemical oxygen demand (BOD) (Tonnes)					4,739.750			
Volume transported (m^3)						570,413.482		
Dried solid mass treated (ttds)							69.746	
Dried solid mass disposed (ttds)								42.042
Unit cost (£/unit)	**182.703**	**258.902**	**236.186**	**645.969**	**855.530**	**8.280**	**130,416.081**	**108,107.454**
Population (000s)	3,099.044	3,099.044	3,099.044	3,099.044	3,099.044	3,099.044	3,099.044	3,099.044
Unit cost (£/pop)	**12.358**	**4.219**	**2.113**	**18.712**	**1.308**	**1.524**	**2.935**	**1.467**

4F – Cost analysis for the year ended 31 March 2018 – household retail

	Household unmeasured				Household measured				Total
	Water only £m	Wastewater only £m	Water and wastewater £m	Total £m	Water only £m	Wastewater only £m	Water and wastewater £m	Total £m	£m
Operating expenditure									
Customer services	0.355	0.343	5.716	6.414	0.234	0.682	5.330	6.246	**12.660**
Debt management	0.317	0.305	5.240	5.862	0.060	0.175	1.401	1.636	**7.498**
Doubtful debts	0.796	0.768	13.176	14.740	0.251	0.732	5.852	6.835	**21.575**
Meter reading	-	-	-	-	0.065	0.188	1.502	1.755	**1.755**
Other operating expenditure	0.303	0.292	5.013	5.608	0.162	0.471	3.767	4.400	**10.008**
Total operating expenditure excluding third party services	1.771	1.708	29.145	32.624	0.772	2.248	17.852	20.872	**53.496**
Third party services operating expenditure	-	-	-	-	-	-	-	-	**-**
Total operating expenditure	**1.771**	**1.708**	**29.145**	**32.624**	**0.772**	**2.248**	**17.852**	**20.872**	**53.496**
Depreciation									
-tangible fixed assets (on assets existing at 31 March 2015)	0.012	0.012	0.202	0.226	0.007	0.019	0.151	0.177	**0.403**
-tangible fixed assets (on assets acquired since 1 April 2015)	0.001	0.001	0.022	0.024	0.001	0.002	0.016	0.019	**0.043**
-amortisation intangible fixed assets (existing at 31 March 2015)	0.071	0.068	1.171	1.310	0.038	0.110	0.879	1.027	**2.337**
-amortisation intangible fixed assets (acquired since 1 April 2015)	0.081	0.078	1.342	1.501	0.043	0.126	1.008	1.177	**2.678**
Total operating costs	**1.936**	**1.867**	**31.882**	**35.685**	**0.861**	**2.505**	**19.906**	**23.272**	**58.957**
Capital expenditure	0.244	0.236	4.040	4.520	0.130	0.380	3.034	3.544	**8.064**
Demand-side efficiency & customer side leaks analysis – Household									
Demand-side water efficiency – gross expenditure									0.057
Demand-side-water efficiency - expenditure funded by wholesale									-
Demand-side-water efficiency -net retail expenditure									**0.057**
Customer-side leak expenditure - gross expenditure									2.827
Customer-side leak repairs - expenditure funded by wholesale									2.827
Customer-side leak repairs - net retail expenditure									**-**

4G – Wholesale current cost financial performance for the year ended 31 March 2018

	Water £m	Wastewater £m	Total £m
Revenue	304.811	389.392	694.203
Operating expenditure	(207.234)	(138.328)	(345.562)
Capital maintenance charges	(83.437)	(118.237)	(201.674)
Other operating income	0.810	0.991	1.801
Current cost operating profit	14.950	133.818	148.768
Other income	7.129	7.560	14.689
Interest income	1.204	2.534	3.738
Interest expense	(62.805)	(132.145)	(194.950)
Other interest income	(0.803)	(1.691)	(2.494)
Current cost (loss)/ profit before tax and fair value movements	(40.325)	10.076	(30.249)
Fair value gains/(losses) on financial instruments	16.838	35.427	52.265
Current cost profit before tax	**(23.487)**	**45.503**	**22.016**

4H – Financial metrics for the year ended 31 March 2018

	Ref	Units	Metric
Financial indicators			
Net debt		£m	3,119.841
Regulated equity		£m	2,348.705
Regulated gearing		%	57.05%
Post-tax return on regulated equity		%	(4.85%)
RORE (return on regulated equity)	Note 6	%	4.85%
Dividend yield[2]		%	0.00%
Retail profit margin - Household		%	(2.58%)
- Non household		%	1.63%
Credit rating[1]			A2/A/A
Return on RCV		%	1.52%
Dividend cover[2]			0.00%
Funds from operations (FFO) (£m)		£m	214.981
Interest cover (cash)			2.64
Adjusted interest cover (cash)			1.54
FFO/Debt			0.07
Effective tax rate (%)			0.08%
RCF			214.981
RCF/capex			0.61
Revenue (actual)		£m	729.629
EBITDA (actual)		£m	325.395
Proportion of borrowings which are:			
- fixed rate			36.42%
- floating rate			-
- index-linked			63.58%
Proportion of borrowings which are:			
- due within one year or less			1.17%
- due in more than one year but no more than two years			1.47%
- due in more than two years but not more than five years			17.17%
- due in more than five years but not more than 20 years			62.83%
- due in more than 20 years			17.36%
			100.00%

[1] The credit ratings of the company's Class A Bonds, which are guaranteed by Assured Guaranty (London) plc, rated (BB/Baa1(pos)/NR, revert to their higher underlying ratings of A2/A/A by Moody's Investor Service, Standard & Poor's and Fitch Ratings respectively.

The outlook of all the company's bonds is stable.

[2] There were no dividends paid in the year.

4I – Financial derivatives for the year ended 31 March 2018

	Nominal value by maturity (net)			Total value at 31 March 2018		Total accretion at 31 March 2018	Interest rate (weighted average for 12 months to 31 March 2018)	
	One to two years	Two to five years	Over five years	Nominal value (net)	Mark to market		Payable	Receivable
Derivative type	**£m**	**£m**	**£m**	**£m**	**£m**	**£m**	**%**	**%**
Interest rate swap (sterling)								
Floating to fixed rate	-	-	(192.000)	(192.000)	(89.941)	-	5.67	0.34
Floating from fixed rate	-	-	-	-	-	-	-	-
Floating to index linked	(4.479)	(50.022)	(463.111)	(517.612)	(180.920)	-	1.82	4.59
Floating from index linked	-	-	-	-	-	-	-	-
Fixed to index-linked	-	-	-	-	-	-	-	-
Fixed from index-linked	-	-	-	-	-	-	-	-
Total	**(4.479)**	**(50.022)**	**(655.111)**	**(709.612)**	**(270.861)**	**-**		
Foreign exchange								
Cross-currency swap USD	-	-	-	-	-	-	-	-
Cross-currency swap EUR	-	-	-	-	-	-	-	-
Cross-currency swap YEN	-	-	-	-	-	-	-	-
Cross-currency swap other	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-		
Currency interest rate								
Currency interest rate swaps USD	-	-	-	-	-	-	-	-
Currency interest rate swaps EUR	-	-	-	-	-	-	-	-
Currency interest rate swaps YEN	-	-	-	-	-	-	-	-
Currency interest rate swaps other	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-		
Forward currency contracts								
Forward currency contracts USD	-	-	-	-	-	-	-	-
Forward currency contracts EUR	-	-	-	-	-	-	-	-
Forward currency contracts YEN	-	-	-	-	-	-	-	-
Forward currency contracts other	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-		
Other financial derivatives[1]	(14.157)	(19.380)	-	**(33.537)**	4.520	-	-	-
Total financial derivatives	**(18.636)**	**(69.402)**	**(655.111)**	**(743.149)**	**(266.341)**	**-**		

[1] Power hedges are operating obligations not financing obligations. These are included so as to agree back to 'Total financial derivatives' per table 1C

4J – Atypical expenditure by business unit – wholesale water

	Water Resources		Network+				
	Abstraction licenses	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution	Total
	£m	£m	£m	£m	£m	£m	£m
Operating expenditure (excl. atypicals)							
Power	-	4.369	2.907	0.043	6.046	9.665	23.030
Income treated as negative expenditure	-	(4.408)	(0.074)	(0.019)	(1.088)	(1.151)	(6.740)
Abstraction charges/discharge consents	8.574	0.002	-	-	0.267	-	8.843
Bulk supply	-	0.125	0.026	0.009	0.242	0.551	0.953
Other operating expenditure – renewals expensed in year (infrastructure)	-	15.319	0.111	-	-	44.418	59.848
Other operating expenditure – renewals expensed in year (non-infrastructure)	-	-	-	-	-	-	-
Other operating expenditure – excluding renewals	0.026	7.364	0.542	0.724	31.367	49.520	89.543
Local authority and Cumulo rates	-	0.746	0.292	0.048	1.406	12.406	14.898
Total operating expenditure excluding third party services	8.600	23.517	3.804	0.805	38.240	115.409	190.375
Third party services	1.589	5.931	0.516	0.056	0.226	1.229	9.547
Total operating expenditure	**10.189**	**29.448**	**4.320**	**0.861**	**38.466**	**116.638**	**199.922**
Capital expenditure (excl. atypicals)							
Maintaining the long term capability of the assets – infra	-	(0.543)	-	-	-	22.588	22.045
Maintaining the long term capability of the assets – non infra	-	10.830	0.331	0.053	41.919	26.101	79.234
Other capital expenditure - infra	-	1.294	0.014	-	-	15.066	16.374
Other capital expenditure - non infra	-	8.109	-	0.029	18.102	3.187	29.427
Infrastructure network reinforcement	-	-	-	-	-	0.501	0.501
Total gross capital expenditure excluding third party services	-	19.690	0.345	0.082	60.021	67.443	147.581
Third party services	-	0.012	-	0.157	0.219	0.191	0.579
Total gross capital expenditure	**-**	**19.702**	**0.345**	**0.239**	**60.240**	**67.634**	**148.160**
Grants & contributions	-	-	-	-	0.039	12.169	12.208
Totex	**10.189**	**49.150**	**4.665**	**1.100**	**98.667**	**172.103**	**335.874**
Cash expenditure (excl. atypicals)							
Pension deficit recovery payments	0.004	0.196	0.032	0.035	1.334	1.867	3.468
Totex including cash items	**10.193**	**49.346**	**4.697**	**1.135**	**100.001**	**173.970**	**339.342**
Atypical expenditure – Severe weather	**-**	**-**	**-**	**-**	**-**	7.312	7.312
Total expenditure	**10.193**	**49.346**	**4.697**	**1.135**	**100.001**	**181.282**	**346.654**

4K – Atypical expenditure by business unit – wholesale wastewater

	Network+ Sewage Collection			Network+ Sewage treatment		Sludge			
	Foul	Surface water drainage	Highway drainage	Sewage treatment & disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge Disposal	Total
	£m	£m	£m	£m	£m	£m			£m
Operating expenditure (excl. atypicals)									
Power	3.293	1.081	0.541	18.218	2.259	-	1.122	-	26.514
Income treated as negative expenditure	-	-	-	(0.527)	(0.078)	-	(2.663)	-	(3.268)
Discharge consents	1.058	0.347	0.174	3.426	0.001	-	-	-	5.006
Other operating expenditure									
- Renewals expensed in year (Infrastructure)	15.081	7.019	3.900	-	-	-	-	-	26.000
- Renewals expensed in year (Non-Infrastructure)	-	-	-	-	-	-	-	-	-
- Other operating expenditure excluding renewals	18.813	4.615	1.927	27.503	1.873	4.723	10.100	4.545	74.099
Local authority and Cumulo rates	-	-	-	9.370	-	-	0.537	-	9.907
Total operating expenditure (excluding third party services)	38.245	13.062	6.542	57.990	4.055	4.723	9.096	4.545	138.258
Third party services	0.052	0.013	0.005	-	-	-	-	-	0.070
Total operating expenditure	**38.297**	**13.075**	**6.547**	**57.990**	**4.055**	**4.723**	**9.096**	**4.545**	**138.328**
Capital expenditure (excl. atypicals)									
Maintaining the long term capability of the asset – infra	6.270	2.920	1.622	-	-	-	-	-	10.812
Maintaining the long term capability of the asset – non infra	10.472	3.533	1.456	54.238	0.030	0.140	35.518	1.175	106.562
Other capital expenditure - infra	16.823	7.290	3.925	-	-	-	-	-	28.038
Other capital expenditure - non infra	2.188	0.947	0.510	31.433	-	-	0.043	0.001	35.122
Infrastructure network reinforcement	1.823	0.790	0.425	-	-	-	-	-	3.038
Total gross capital expenditure excluding third party services	**37.576**	**15.480**	**7.938**	**85.671**	**0.030**	**0.140**	**35.561**	**1.176**	**183.572**
Third party services	0.028	0.012	0.007	-	-	-	-	-	0.047
Total gross capital expenditure	**37.604**	**15.492**	**7.945**	**85.671**	**0.030**	**0.140**	**35.561**	**1.176**	**183.619**
Grants & contributions	5.171	2.202	1.223	0.097	-	-	-	-	8.693
Totex	**70.730**	**26.365**	**13.269**	**143.564**	**4.085**	**4.863**	**44.657**	**5.721**	**313.254**
Cash expenditure									
Pension deficit recovery payments	0.696	0.151	0.020	1.260	0.007	0.067	0.267	0.067	2.535
Totex including cash items	**71.426**	**26.516**	**13.289**	**144.824**	**4.092**	**4.930**	**44.924**	**5.788**	**315.789**
Totex expenditure	**71.426**	**26.516**	**13.289**	**144.824**	**4.092**	**4.930**	**44.924**	**5.788**	**315.789**

4L – Enhancement capital expenditure by purpose for the year ended 31 March 2018 – wholesale water

	Expenditure in the year						
	Water resources		Network+				
	Abstraction licenses £m	Raw water abstraction £m	Raw water transport £m	Raw water storage £m	Water treatment £m	Treated water distribution £m	Total £m
NEP - Making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs)	-	7.266	-	0.029	-	0.004	**7.299**
NEP - Eels Regulations (measures at intakes)	-	0.030	-	-	-	-	**0.030**
Addressing low pressure	-	-	-	-	-	0.203	**0.203**
Improving taste / odour / colour	-	0.014	0.014	-	-	7.636	**7.664**
Meeting lead standards	-	-	-	-	-	-	**-**
Supply side enhancements to the supply/demand balance (dry year critical / peak conditions)	-	0.298	-	-	-	-	**0.298**
Supply side enhancements to the supply/demand balance (dry year annual average conditions)	-	0.298	-	-	-	-	**0.298**
Demand side enhancements to the supply/demand balance (dry year critical / peak conditions)	-	0.262	-	-	-	-	**0.262**
Demand side enhancements to the supply/demand balance (dry year annual average conditions)	-	0.262	-	-	-	-	**0.262**
New developments	-	-	-	-	-	6.651	**6.651**
New connections element of new development (CPs, meters)	-	-	-	-	-	0.994	**0.994**
Investment to address raw water deterioration (THM, nitrates, Crypto, pesticides, others)	-	0.175		-	17.317	-	**17.492**
Resilience	-	0.125	-	-	0.006	-	**0.131**
SEMD	-	0.158	-	-	0.779	0.467	**1.404**
NEP - Investigations	-	0.515	-	-	-	-	**0.515**
Improvements to river flows	-	-	-	-	-	-	**-**
Metering (excluding cost of providing metering to new service connections) - meters requested by optants	-	-	-	-	-	1.770	**1.770**
Metering (excluding cost of providing metering to new service connections)- meters introduced by companies	-	-	-	-	-	1.015	**1.015**
Metering (excluding cost of providing metering to new service connections) – other	-	-	-	-	-	0.014	**0.014**
Total enhancement expenditure	**-**	**9.403**	**0.014**	**0.029**	**18.102**	**18.754**	**46.302**

4L – Enhancement capital expenditure by purpose for the year ended 31 March 2018 – wholesale water (continued)

	Cumulative expenditure on schemes completed in the report year						
	Water resources			Network+			
	Abstraction licenses £m	Raw water abstraction £m	Raw water transport £m	Raw water storage £m	Water treatment £m	Treated water distribution £m	Total £m
NEP - Making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs) ***(See Note 1)***	-	0.411	-	-	-	-	**0.411**
NEP - Eels Regulations (measures at intakes)	-	0.002	-	-	-	-	**0.002**
Addressing low pressure	-	-	-	-	-	-	**-**
Improving taste / odour / colour	-	-	-	-	-	1.340	**1.340**
Meeting lead standards	-	-	-	-	-	-	**-**
Supply side enhancements to the supply/demand balance (dry year critical / peak conditions)	-	0.298	-	-	-	-	**0.298**
Supply side enhancements to the supply/demand balance (dry year annual average conditions)	-	0.298	-	-	-	-	**0.298**
Demand side enhancements to the supply/demand balance (dry year critical / peak conditions)	-	0.262	-	-	-	-	**0.262**
Demand side enhancements to the supply/demand balance (dry year annual average conditions)	-	0.262	-	-	-	-	**0.262**
New developments ***(See Note 2)***	-	-	-	-	-	7.155	**7.155**
New connections element of new development (CPs, meters) ***(See Note 3)***	-	-	-	-	-	0.982	**0.982**
Investment to address raw water deterioration (THM, nitrates, Crypto, pesticides, others)	-	0.014	-	-	0.007	-	**0.021**
Resilience	-	0.125	-	-	-	-	**0.125**
SEMD	-	0.144	-	-	0.741	0.439	**1.324**
NEP - investigations	-	0.238	-	-	-	-	**0.238**
Improvements to river flows	-	-	-	-	-	-	**-**
Metering (excluding cost of providing metering to new service connections) - meters requested by optants ***(See Note 4)***	-	-	-	-	-	1.770	**1.770**
Metering (excluding cost of providing metering to new service connections)- meters introduced by companies	-	-	-	-	-	1.015	**1.015**
Metering (excluding cost of providing metering to new service connections) - other	-	-	-	-	-	0.014	**0.014**
Total enhancement expenditure	**-**	**2.054**	**-**	**-**	**0.748**	**12.715**	**15.517**

4L – Enhancement capital expenditure by purpose for the year ended 31 March 2018 – wholesale water (continued)

Notes

1) Schemes have been allocated in the cumulative expenditure columns based on completion dates, which may not be in the same year that outputs are claimed. In addition, where a scheme output has already been claimed but expenditure is incurred during a subsequent year, we have not included this cost in the cumulative table - only in the expenditure by year table. These comments apply to all lines in this table.

2) Schemes under New Development and Growth provide an ongoing programme of work that is fluid and as such we are unable to provide actual completion dates. For this reason, we have reported in the cumulative table the costs for the current year less any schemes which were claimed in previous years.

3) We have an ongoing programme of work for new connections associated with new development and, as this work is fluid, we are unable to provide actual completion dates. For this reason, we have reported in the cumulative table the costs for the current year less any schemes which were claimed in previous years.

4) The metering programme provides a continual programme of works and, as a result, we have reported the costs as completed in the year. Last year, we reported all metering costs, i.e. lines 17 to 19 in the one line (line 17). This year, the costs have been allocated to the appropriate lines.

4M – Enhancement expenditure by purpose for the year ended 31 March 2018 – Wholesale wastewater

	Expenditure in report year								
	Network+ Sewage Collection			Network+ Sewage treatment		Sludge			
	Foul	Surface water drainage	Highway drainage	Sewage treatment & disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge Disposal	Total
	£m	£m	£m	£m	£m	£m	£m	£m	£m
First time sewerage (s101A)	1.147	0.497	0.268	-	-	-	-	-	**1.912**
Sludge enhancement (growth)	-	-	-	-	-	-	0.049	-	**0.049**
NEP - Conservation drivers	-	-	-	1.133	-	-	-	-	**1.133**
NEP - Event Duration Monitoring at intermittent discharges	0.776	0.336	0.181	0.029	-	-	-	-	**1.322**
NEP - Flow monitoring at sewage treatment works	-	-	-	0.239	-	-	-	-	**0.239**
NEP - Monitoring of pass forward flows at CSOs	-	-	-	0.188	-	-	-	-	**0.188**
NEP - Storage schemes to reduce spill frequency at CSOs, storm tanks, etc	1.030	0.446	0.240	-	-	-	-	-	**1.716**
NEP - Chemicals monitoring/ investigations/ options appraisals	-	-	-	0.033	-	-	-	-	**0.033**
NEP - National phosphorus removal technology investigations	-	-	-	(0.030)	-	-	-	-	**(0.030)**
NEP - Investigations	0.405	0.176	0.095	0.317	-	-	-	-	**0.992**
NEP - Nutrients (P removal at activated sludge STWs)	-	-	-	0.923	-	-	-	-	**0.923**
NEP - Nutrients (P removal at filter bed STWs)	-	-	-	2.816	-	-	-	-	**2.816**
NEP - Reduction of sanitary parameters	-	-	-	13.802	-	-	-	-	**13.802**
Odour	0.008	0.004	0.002	0.167	-	-	-	-	**0.181**
New development and growth	3.466	1.502	0.809	-	-	-	-	-	**5.777**
Growth at sewage treatment works (excluding sludge treatment)	-	-	-	5.829	-	-	-	-	**5.829**
Resilience	0.357	0.155	0.083	0.012	-	-	(0.007)	-	**0.600**
SEMD	0.233	0.100	0.053	3.038	-	-	0.002	0.001	**3.427**
Reduce flooding risk for properties	3.407	1.476	0.795	-	-	-	-	-	**5.678**
Capital expenditure purpose – AMP4 Intermittent Discharges	0.002	0.001	-	-	-	-	-	-	**0.003**
Capital expenditure purpose – ESL - UID	0.001	0.001	-	-	-	-	-	-	**0.002**
Capital expenditure purpose – Llanelli/Gowerton UWWTD	10.001	4.334	2.334	2.937	-	-	-	-	**19.606**
Total enhancement capital expenditure	**20.833**	**9.027**	**4.860**	**31.433**	**-**	**-**	**0.044**	**0.001**	66.198

4M – Enhancement expenditure by purpose for the year ended 31 March 2018 – wholesale wastewater (continued)

	Cumulative expenditure on schemes completed in report year								
	Network+ Sewage Collection			Network+ Sewage treatment			Sludge		
	Foul	Surface water drainage	Highway drainage	Sewage treatment & disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge Disposal	Total
	£m	£m	£m	£m	£m	£m	£m	£m	£m
First time sewerage (s101A) (***See Note 1)***	0.510	0.221	0.119	-	-	-	-	-	**0.850**
NEP - Event Duration Monitoring at intermittent discharges ***(See Note 2)***	0.776	0.336	0.181	0.029	-	-	-	-	**1.322**
NEP – Flow monitoring at sewage treatment works ***(See Note 3)***	-	-	-	-	-	-	-	-	**-**
NEP - Monitoring of pass forward flows at CSOs	-	-	-	0.188	-	-	-	-	**0.188**
NEP - Storage schemes to reduce spill frequency at CSOs, storm tanks, etc ***(See Note 4)***	4.219	1.828	0.984	-	-	-	-	-	**7.031**
NEP – National phosphorous removal technology investigations ***(See Note 5)***	-	-	-	-	-	-	-	-	**-**
NEP – Investigations	0.032	0.014	0.008	-	-	-	-	-	**0.054**
NEP - Reduction of sanitary parameters	-	-	-	0.046	-	-	-	-	**0.046**
Odour	0.100	0.044	0.023	0.274	-	-	-	-	**0.441**
New development and growth ***(See Note 6)***	4.973	2.155	1.160	-	-	-	-	-	**8.288**
Growth at sewage treatment works (excluding sludge treatment)	-	-	-	0.008	-	-	-	-	**0.008**
Resilience	-	0.042	-	0.044	-	-	0.044	-	**0.130**
SEMD	0.230	0.100	0.054	2.924	-	-	-	-	**3.308**
Reduce flooding risk for properties	2.897	1.255	0.676	-	-	-	-	-	**4.828**
Capital expenditure purpose - WASTEWATER additional line 4 [Other categories]	0.478	0.207	0.112	0.018	-	-	-	-	**0.815**
Total enhancement capital expenditure	**14.215**	**6.202**	**3.317**	**3.531**	**-**	**-**	**0.044**	-	**27.309**

4M – Enhancement expenditure by purpose for the year ended 31 March 2018 – wholesale wastewater (continued)

Notes

1) Schemes have been allocated in the cumulative expenditure columns based on completion dates, which may not be in the same year that outputs are claimed. In addition, where a scheme output has already been claimed but expenditure is incurred during a subsequent year, we have not included this cost in the cumulative table, but it is included in the expenditure by year table. These comments apply to all lines in this table.

2) This is a collection of EDM schemes and part of an ongoing programme. Individual scheme completions cannot be determined so we have allocated the costs in the year as complete.

3) £46k of the costs incurred in the report year are associated with the installation of flow monitors to monitor effluent discharged from a Water Treatment Works. There is no equivalent line in table 4L and we have therefore allocated these costs to the most appropriate line in table 4M. The remainder of the costs relate to flow monitoring at sewage treatment works.

4) It should be noted that in the cumulative column last year (table 9.1 line 8), we erroneously included £1.941m for one scheme. This scheme was completed in 2017/18 and the total cost incurred has been included in the £7.031m entered in the cumulative column for this line.

5) Negative figures in cells reflect an accounting adjustment: reversal of over-accruals in prior year.

6) Schemes under New Development and Growth provide an ongoing programme of work that is continually fluid and as such we are unable to provide actual completion dates. For this reason, we have reported in the cumulative table the costs for the current year less any schemes which were claimed in previous years.

4N – Operating expenditure for the year ended 31 March 2018 – sewage treatment – wholesale wastewater

	Network+	Sludge	Total
	£000	£000	£000
Direct costs of STWs in size band 1	4,175.425		4,175.425
Direct costs of STWs in size band 2	2,178.200		2,178.200
Direct costs of STWs in size band 3	4,302.107		4,302.107
Direct costs of STWs in size band 4	6,287.239		6,287.239
Direct costs of STWs in size band 5	5,504.693		5,504.693
General & support costs of STWs in size bands 1 to 5	5,545.052		5,545.052
Direct costs of STWs in size band 6	19,462.000		19,462.000
General & support costs of STWs in size band 6	5,220.000		5,220.000
Service charges for STWs in size band 6	581.000		581.000
Estimated terminal pumping costs size band 6 works	2,398.000		2,398.000
Estimated sludge costs size band 6 works	-		-
Total operating expenditure (excluding 3rd party services)	**52,674.716**		**52,674.716**

Direct costs for STWs in bands 3 to 6 have unique cost centres. For band 1 and 2 STWs, the costs are apportioned across the bands based on direct costs and population equivalent. In the year, there have been band movements and two of the sites have moved to band 6.

The movement in costs compared to last year reflects a change in the table definition. For 2016/17, the Cost Assessment table used functional expenditure which did not include local authority rates, scientific services and business activities. For 2017/18, the line definition has changed and operating expenditure accords with what we report in Table 4E less local authority rates. As a result, costs amounting to £3.5m are now reported in this table which were not included in the cost assessment tables.

Changes between the original version and this version 2 relates to the removal of local authority rates of £9.4m from the above table following clarification from Ofwat.

4O – Large sewage treatment works for the year ended 31 March 2018 – wholesale wastewater

Sewage treatment work – Explanatory variables		**STWNAMED 01**	**STWNAMED 02**	**STWNAMED 03**	**STWNAMED 04**	**STWNAMED 05**	**STWNAMED 06**	**STWNAMED 07**	**STWNAMED 08**
Works name		**AFAN**	**CARDIFF BAY**	**CHESTER**	**CILFYNYDD**	**COG MOORS**	**COSLECH**	**CYNON**	**FIVE FORDS**[1]
Classification of treatment works		SAS	SAS	SAS	SB	SAS	SAS	SAS	TA2
Population equivalent of total load received	£000	144.92	933.79	114.75	72.77	216.88	51.49	66.81	121.35
Suspended solids consent	mg/l	-	-	40	30	-	30	40	60
BOD_5 consent	mg/l	50	50	25	20	50	20	30	50
Ammonia consent	mg/l	-	20	10	5	-	8	-	10
Phosphorus consent	mg/l	-	-	-	-	-	-	-	1
UV consent	mW/s/cm2	-	-	-	1	-	-	-	-
Load received by STW	kgBOD5/d	8,695	56,027	6,885	4,366	13,013	3,090	4,008	7,281
Flow passed to full treatment	m3/d	65,225	334,376	35,238	38,024	111,095	17,203	32,299	29,467
Sewage treatment work – Operating expenditure									
Direct expenditure[2]	£000	1,180	4,013	846	242	1,701	292	286	1,096
General and support expenditure	£000	304	998	254	54	461	74	66	302
Functional expenditure	£000	**1,484**	**5,011**	**1,100**	**296**	**2,162**	**366**	**352**	**1,398**
Service charges	£000	44	62	26	27	34	15	15	17
Estimated terminal pumping expenditure	£000	225	536	1	-	507	-	-	-

[1] The treatment level at Five Fords WWTW has changed from SAS to TA2. This should have been reported as a TA2 in previous CAT submissions.

[2] As stated in table 4N, costs relating to scientific services and business activities were not reported as direct or general and support costs in the cost assessment tables but is included as direct costs in this table. In this version 2 Local authority rates are excluded from direct expenditure following clarification from Ofwat.

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4O – Large sewage treatment works for the year ended 31 March 2018 – wholesale wastewater (continued)

Sewage treatment work – Explanatory variables		**STWNAMED 09**	**STWNAMED 10**	**STWNAMED 11**	**STWNAMED 12**	**STWNAMED 13**	**STWNAMED 14**	**STWNAMED 15**	**STWNAMED 16**
Works name		**FLINT**	**GANOL**	**GARNSWALLT**	**GOWERTON**	**HEREFORD**	**KINMEL BAY**	**LLANELLI**	**NASH**
Classification of treatment works		TB2	TA2	TA2	TA2	TB2	SAS	TA2	SAS
Population equivalent of total load received	£000	26.19	77.43	30.57	55.68	123.02	66.56	57.01	294.36
Suspended solids consent	mg/l	60	60	28	60	60	-	60	30
BOD_5 consent	mg/l	40	50	23	25	28	50	25	20
Ammonia consent	mg/l	-	-	4	9	10	-	10	18
Phosphorus consent	mg/l	-	-	2	1	1	-	1	-
UV consent	mW/s/cm2	30.47	24	-	30.47	-	-	32	-
Load received by STW	kgBOD5/d	1,571	4,646	1,834	3,341	7,381	3,994	3,420	17,661
Flow passed to full treatment	m3/d	4,075	22,231	22,334	27,546	33,007	19,194	29,694	54,606
Sewage treatment work – Operating expenditure									
Direct expenditure	£000	83	772	268	732	901	599	490	996
General and support expenditure	£000	19	207	69	209	281	177	117	251
Functional expenditure	£000	**102**	**979**	**337**	**941**	**1,182**	**776**	**607**	**1,247**
Service charges	£000	8	8	9	46	16	8	53	42
Estimated terminal pumping expenditure	£000	-	160	-	28	-	192	4	-

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4O – Large sewage treatment works for the year ended 31 March 2018 – wholesale wastewater (continued)

Sewage treatment work – Explanatory variables		**STWNAMED 17**	**STWNAMED 18**	**STWNAMED 19**	**STWNAMED 20**	**STWNAMED 21**	**STWNAMED 22**	**STWNAMED 23**
Works name		**PENYBONT**	**PONTHIR**	**QUEENSFERRY**	**SWANSEA BAY**	**LLANASA**	**BANGOR TREBORTH NORTH WEST**	**ABERYSTWYTH (GLAN YR AFON)**
Classification of treatment works		TA2	SAS	TB2	TA2	TA2	TA2	TA2
Population equivalent of total load received	£000	160.88	97.71	52.29	192.47	37.02	31.40	29.67
Suspended solids consent	mg/l	35	60	56	60	43	60	34
BOD_5 consent	mg/l	25	40	38	50	24	50	17
Ammonia consent	mg/l	6	20	25	-	30	-	8
Phosphorus consent	mg/l	-	-	-	-	-	-	-
UV consent	mW/s/cm2	30	-	30.33	22	35	-	32
Load received by STW	kgBOD5/d	9,653	5,863	3,137	11,548	2,221	1,884	1,780
Flow passed to full treatment	m3/d	80,312	38,755	9,855	71,836	9,221	12,484	13,675
Sewage treatment work – Operating expenditure								
Direct expenditure	£000	1,306	506	282	1,622	305	691	253
General and support expenditure	£000	365	120	91	456	78	198	66
Functional expenditure	£000	**1,671**	**626**	**373**	**2,078**	**383**	**889**	**322**
Service charges	£000	41	41	14	29	9	8	9
Estimated terminal pumping expenditure	£000	47	-	38	409	9	242	-

4P – Non-financial data for WR, WT and WD for the year ended 31 March 2018 – wholesale water

Line	Water resources		Current year
1	Proportion of distribution input derived from impounding reservoirs	Propn 0 to 1	0.434
2	Proportion of distribution input derived from pumped storage reservoirs	Propn 0 to 1	0.308
3	Proportion of distribution input derived from river abstractions	Propn 0 to 1	0.223
4	Proportion of distribution input derived from groundwater works, excluding managed aquifer recharge (MAR) water supply schemes	Propn 0 to 1	0.035
5	Proportion of distribution input derived from artificial recharge (AR) water supply schemes	Propn 0 to 1	-
6	Proportion of distribution input derived from aquifer storage and recovery (ASR) water supply schemes	Propn 0 to 1	-
7	Number of impounding reservoirs ***(See note 1)***	nr	35
8	Number of pumped storage reservoirs	nr	4
9	Number of river abstractions ***(See note 2)***	nr	26
10	Number of groundwater works excluding managed aquifer recharge (MAR) water supply schemes ***(See note 3)***	nr	14
11	Number of artificial recharge (AR) water supply schemes	nr	-
12	Number of aquifer storage and recovery (ASR) water supply schemes	nr	-
13	Total number of sources ***(See note 4)***	nr	79
14	Total number of water reservoirs ***(See note 5)***	nr	80
15	Total capacity of water reservoirs	Ml	461,224
16	Total number of intake and source pumping stations	nr	44
17	Total number of raw water transfer stations	nr	39
18	Total capacity of intake and source pumping stations ***(See note 6)***	kW	2,815
19	Total capacity of raw water transfer pumping stations	kW	46,570
20	Total length of raw water mains and conveyors	km	542.34
21	Average pumping head – resources ***(See note 7)***	m.hd	36.61
22	Average pumping head – raw water transport	m.hd	20.66

4P – Non-financial data for WR, WT and WD for the year ended 31 March 2018 – wholesale water (continued)

Line	Water treatment		Current year
23	Total water treated at all SW simple disinfection works	Ml/d	-
24	Total water treated at all SW1 works	Ml/d	-
25	Total water treated at all SW2 works	Ml/d	-
26	Total water treated at all SW3 works ***(See note 8)***	Ml/d	187.96
27	Total water treated at all SW4 works ***(See note 9)***	Ml/d	5.73
28	Total water treated at all SW5 works	Ml/d	595.76
29	Total water treated at all SW6 works	Ml/d	-
30	Total water treated at all GW simple disinfection works	Ml/d	-
31	Total water treated at all GW1 works	Ml/d	-
32	Total water treated at all GW2 works ***(See note 10)***	Ml/d	-
33	Total water treated at all GW3 works	Ml/d	-
34	Total water treated at all GW4 works ***(See note 11)***	Ml/d	0.03
35	Total water treated at all GW5 works	Ml/d	25.72
36	Total water treated at all GW6 works	Ml/d	-
37	Total water treated at more than one type of works	Ml/d	-
38	Total number of SW simple disinfection works ***(See note 12)***	nr	-
39	Total number of SW1 works	nr	-
40	Total number of SW2 works	nr	-
41	Total number of SW3 works ***(See note 13)***	nr	20
42	Total number of SW4 works ***(See note 14)***	nr	-
43	Total number of SW5 works	nr	29
44	Total number of SW6 works	nr	-

4P – Non-financial data for WR, WT and WD for the year ended 31 March 2018 – wholesale water (continued)

Line			Current year
	Water treatment		
45	Total number of GW simple disinfection works	nr	-
46	Total number of GW1 works	nr	-
47	Total number of GW2 works	nr	-
48	Total number of GW3 works	nr	-
49	Total number of GW4 works ***(See note 15)***	nr	-
50	Total number of GW5 works ***(See note 16)***	nr	14
51	Total number of GW6 works	nr	-
52	Number of treatment works requiring remedial action because of raw water deterioration ***(See note 17)***	nr	2
53	Zonal population receiving water treated with orthophosphate ***(See note 18)***	000	2,983.955
54	Average pumping head – treatment ***(See note 19)***	m.hd	35.80
	Water distribution		
55	Total length of potable mains as at 31 March	km	27,597.0
56	Total length of mains relined ***(See note 20)***	km	-
57	Total length of mains renewed	km	96.7
58	Total length of new mains	km	39.2
59	Potable water mains (<320mm)	km	25,712.5
60	Potable water mains 320mm - 450mm	km	908.2
61	Potable water mains 450mm - 610mm	km	541.8
62	Potable water mains > 610mm	km	434.6
63	Total length of non-potable and partially treated main for supplying customers	km	119.6
64	Total length of non-potable and partially treated main for treatment ***(See note 21)***	km	-
65	Capacity of booster pumping stations ***(See note 22)***	kW	42,886
66	Capacity of service reservoirs	Ml	1,972
67	Capacity of water towers	Ml	2
68	Distribution input	Ml/d	815.20

4P – Non-financial data for WR, WT and WD for the year ended 31 March 2018 – wholesale water (continued)

Line	Water distribution		Current year
69	Water delivered (non-potable)	Ml/d	39.91
70	Water delivered (potable) ***(See note 23)***	Ml/d	682.34
71	Water delivered (billed measured residential) ***(See note 24)***	Ml/d	145.22
72	Water delivered (billed measured business)	Ml/d	171.32
73	Total leakage ***(See note 25)***	Ml/d	172.85
74	Distribution losses	Ml/d	120.38
75	Water taken unbilled	Ml/d	14.82
76	Number of lead communication pipes ***(See note 26)***	nr	172,326
77	Number of galvanised iron communication pipes ***(See note 27)***	nr	31
78	Number of other communication pipes ***(See note 28)***	nr	840,426
79	Number of booster pumping stations ***(See note 29)***	nr	621
80	Total number of service reservoirs ***(See note 30)***	nr	472
81	Number of water towers	nr	4
82	Total length of mains laid or structurally refurbished pre-1880 ***(See note 31)***	km	126.9
83	Total length of mains laid or structurally refurbished between 1881 and 1900 ***(See note 31)***	km	754.8
84	Total length of mains laid or structurally refurbished between 1901 and 1920 ***(See note 31)***	km	2,576.7
85	Total length of mains laid or structurally refurbished between 1921 and 1940 ***(See note 31)***	km	1,931.9
86	Total length of mains laid or structurally refurbished between 1941 and 1960 ***(See note 31)***	km	4,502.3
87	Total length of mains laid or structurally refurbished between 1961 and 1980 ***(See note 31)***	km	6,297.9
88	Total length of mains laid or structurally refurbished between 1981 and 2000 ***(See note 31)***	km	6,677.9
89	Total length of mains laid or structurally refurbished post 2001 ***(See note 31)***	km	4,728.6
90	Average pumping head – distribution ***(see note 19)***	m.hd	57.74

4P – Non-financial data for WR, WT and WD for the year ended 31 March 2018 – wholesale water (continued)

Line			Current year
	Band disclosure (nr)		
91	WTWs in size band 1 ***(See note 32)***	nr	21
92	WTWs in size band 2 ***(See note 32)***	nr	11
93	WTWs in size band 3 ***(See note 32)***	nr	7
94	WTWs in size band 4 ***(See note 32)***	nr	11
95	WTWs in size band 5 ***(See note 32)***	nr	8
96	WTWs in size band 6 ***(See note 32)***	nr	3
97	WTWs in size band 7 ***(See note 32)***	nr	2
98	WTWs in size band 8 ***(See note 32)***	nr	-
	Band disclosure (%)		
99	Proportion of Total DI band 1 ***(See note 32)***	%	2.2%
100	Proportion of Total DI band 2 ***(See note 32)***	%	3.8%
101	Proportion of Total DI band 3 ***(See note 32)***	%	5.4%
102	Proportion of Total DI band 4 ***(See note 32)***	%	14.7%
103	Proportion of Total DI band 5 ***(See note 32)***	%	25.8%
104	Proportion of Total DI band 6 ***(See note 32)***	%	19.5%
105	Proportion of Total DI band 7 ***(See note 32)***	%	28.6%
106	Proportion of Total DI band 8 ***(See note 32)***	%	0.0%

4P – Non-financial data for WR, WT and WD for the year ended 31 March 2018 – wholesale water (continued)

Notes

1) The number of impounding reservoirs in 2017/18 is 35 compared to 39 last year. In the course of preparing the data this year, it was noticed that two of the reservoirs previously included in last year's number fed into another reservoir rather than into a Water Treatment Works and should not therefore have been included in the number. Furthermore, the status of another two reservoirs has been re-assessed. One of them is fed from sources outside its catchment and we feel it is more appropriate that it be classified as a “pumped storage reservoir”. We have included it in Line 8 of this table. The other is a bank side storage reservoir and we do not believe that it warrants inclusion in this line. These changes also have a bearing on previous years.

2) The number of river abstractions is 26 (24 last year). Two river abstractions (Afon Callettwr and "Usk at Llantrisant") in last year’s submission were not operational in 2017-18 and have therefore been excluded. In the course of preparing the data, it was noted that four of the existing river abstractions had mistakenly been excluded from previous years. The Afon Calettwr abstraction was only used in 2015/16 and the "Usk at Llantrisant" abstraction was only used in 2011/12. Consequently, the number of river abstractions per year is as follows 2011/12 – 27, 2012/13 – 26, 2013/14 – 26, 2014/15 – 26, 2015/16 – 27, 2016/17 – 26.

3) The number of Groundwater Works excluding MAR schemes is 14 (15 last year). In the course of preparing the data, it was noted that one abstraction (Shon Sheffery Spring) previously included in this line has been removed as the abstraction feeds water directly into an impounding reservoir and not a Water Treatment Works. The numbers reported previously should have been 2011/12 = 18, 2012/13= 17, 2013/14 =15, 2014/15 = 14, and 2015/16 = 15.

4) The net effect of the changes described in lines 7 to 10 is an overall reduction of two in the number of sources.

5) Two new reservoirs (Llanishen and Lisvane) have been added and one asset had a duplicated record which has now been corrected. Previous year’s numbers should also be reduced by one.

6) In the course of the year, we undertook work to improve the quality of the data and this included obtaining kW values of the some pumps (where they hadn’t been available previously). Where we still do not have kW values for individual pumps, we have used the same infill methodology applied when preparing the 2016-17 submission.

4P – Non-financial data for WR, WT and WD for the year ended 31 March 2018 – wholesale water (continued)

7) All bulk supply exports have been excluded in line with the latest reporting guidance relating to average pumping head. This accords with the approach taken when submitting the new APH table in December 2017. It should be noted that 69% of the average pumping head has been calculated using measured flow and static head values. 31% of the average pumping head has been calculated using measured flow and an average static head value (this value is an average of the static head values for all other pumps). A number of lift values for high lift pumps have been updated in line with the Pumping head &and power use cost calculations but this work is ongoing.

8) One Water Treatment Works (Sluvad) has been re-categorised as a SW5 works and this accounts for the respective increases and decreases in the Distribution Inputs in lines 28 and 26 of this table. Where a works has changed category during the year, the Ml/d has been allocated to the appropriate category for the full reporting year.

9) Small increase in DI for this categorisation as described in line 42.

10) The changes in these lines from last year are chiefly attributable to Bulk Import flows from one Water Treatment Works (at Machynlleth - previously a GW2 works) now being categorised as a GW5 works.

11) The very small volume of Bulk Import flows from one Water Treatment Works (from Symonds Yat, which previously did not have a categorisation) are now included in this line.

12) The numbers reported in lines 38 to 51 inclusive (63 in total) comprise operational works. We have not included in these lines a further 18 works. Even though we still hold licences for these 18 works, in their current state they are no longer capable of use.

13) One Water Treatment Works (Sluvad) has in the course of the year been re-categorised from a SW3 works to a SW5 works and this accounts for the change in numbers in lines 41 and 43 of this table.

14) There are no Water Treatment Works in this category. The Ml/d in line 27 relates to a bulk supply import from two Water Treatment Works.

15) There are no Water Treatment Works in this category. The Ml/d in line 34 relates to a bulk supply import from one Water Treatment Works.

4P – Non-financial data for WR, WT and WD for the year ended 31 March 2018 – wholesale water (continued)

16) The Ml/d in this line includes a bulk supply import from one Water Treatment Works.

17) In this line, the year in which substantive work was completed is interpreted as the main period of physical construction. It includes all schemes covered by DWI regulatory notices, tracked and signed off on completion by DWI. Substantive work at both Water Treatment Works affected (Bryn Cowlyd and Tynywaun) were completed during the period April 2017 to March 2018.

18) On the 20 December 2017, an additional phosphate dosing plant at Alaw Water Treatment Works and serving the North Anglesey Water Quality Zone became operational. The population in this zone who received water dosed with orthophosphate for this ten day period in 2017 are therefore included in the reported number of 2,983,955.

19) It should be noted that 69% of the average pumping head has been calculated using measured flow and static head values. 31% of the average pumping head has been calculated using measured flow and an average static head value (this value is an average of the static head values for all other pumps). A number of lift values for high lift pumps have been updated in line with the Pumping head and power use cost calculations but this work is ongoing.

20) There is currently no relining programme.

21) We do not have any water mains designated as “partially treated” within our database and all of these mains are designated as raw water mains and are reported in line 20 of this table. We have therefore inserted zero in this data cell. In the course of 2018-19, we intend to manually trace the circa 542 km of raw water mains contained within our database and will designate them by reference to those non potable mains which are (1) partially treated and (2) are used for the purpose of transferring water from source to treatment.

22) In the course of the year, we undertook work to improve the quality of the data including obtaining kW values of the relevant pumps where they had not been available previously. The data set is incomplete and, where the kW values were not available, we used an infill methodology (based on the “Pump Purpose” characteristic) to estimate the kW value. We will continue to infill the missing data as sites are inspected and assets maintained as part of an opportunistic data gathering exercise.

23) Reflects changes in measured household and non-household volumes.

24) The movement is due to a natural change in underlying meter volumes from the billing system and the increase in metered consumption due to meter optants and new connections.

4P – Non-financial data for WR, WT and WD for the year ended 31 March 2018 – wholesale water (continued)

25) See APR Part 3 - page 30 (MOS F2 Leakage)

26) In 2013, a consultation was undertaken to estimate the number of lead communication pipes. The output of this report predicted that 17.5% of communication pipes are lead. This has been applied to the total number of communication pipes in 2011/12. The number of lead communication pipes is assumed to be the same over the period (including 2017/18). The only change is the removal of lead pipes replaced for water quality reasons as reported in Table 4Q line 19.

27) In the course of the year, we have reviewed the methodology in place to gather data as to the volume of galvanised iron communication pipes in our asset base.

28) The number of "other" communication pipes has increased in line with the increase in the number of connected properties.

29) In May 2017, a new Booster Pumping Station at Garnlwyd Farm came operational in May 2017.

30) In the course of reviewing the data, it was noted that three of the SRVs reported previously should not have been included. Two of these are Raw Water SRVs, and the other is a SRV that was decommissioned some time ago. Our 2017/18 performance is now reported accurately and for all previous years (2011/12 to 2016/17 inclusive) the numbers reported should in each case be reduced by three.

31) Only recently constructed mains have the age recorded on our system (around 40%). Other mains have been allocated to age bands based on local knowledge, evidence on surrounding properties or the years that the pipe material was available. For the mains allocated based on the years the pipe material was available, the midpoint of the year is applied. The Reported figures for lines 82 to 88 of this table, (i.e. potable water mains laid or structurally refurbished between Pre 1880 and 2000) have all decreased. The Reported figures for line 89, potable water mains laid or structurally refurbished post 2001 has increased. These changes are within the expected range and are due to the capture of new housing sites and developments and capital schemes where older water mains have been replaced by new mains to improve water quality and reduce leakage. Mains installed during 2001 are included in line 89 (" total length of mains laid or structurally refurbished post 2001").

32) In the course of the year, several works have moved between bands and the changes in the proportion of Total DI per banding in lines 99 to 106 align with these movements.

4Q – Non-financial data for properties, population and other for the year ended 31 March 2018 – wholesale water

Line	Properties and population	Current year £000
1	Residential properties billed for measured water (external meter) ***(See Note 1)***	466.575
2	Residential properties billed for measured water (not external meter) ***(See Note 2)***	66.938
3	Business properties billed measured water	92.900
4	Residential properties billed for unmeasured water ***(See Note 3)***	725.671
5	Business properties billed unmeasured water	8.073
6	Total business connected properties at year end	116.503
7	Total residential connected properties at year end ***(See Note 4)***	1,316.998
8	Total connected properties at year end	1,433.501
9	Number of residential meters renewed ***(See Note 5)***	8.019
10	Number of business meters renewed ***(See Note 5)***	2.089
11	Number of meters installed at request of optants ***(See Note 6)***	12.373
12	Number of selective meters installed ***(See Note 7)***	0.000
13	Total number of new business connections	0.391
14	Total number of new residential connections	6.637
15	Total population served ***(See Note 8)***	3,054.900
16	Number of business meters (billed properties) ***(See Note 9)***	106.060
17	Number of residential meters (billed properties) ***(See note 9)***	556.536
18	Company area km2 ***(See Note 10)***	20,078

4Q – Non-financial data for properties, population and other for the year ended 31 March 2018 – wholesale water (continued)

Line	Other		Current year £000
19	Number of lead communication pipes replaced for water quality ***(See Note 11)***	nr	28
20	Total supply side enhancements to the supply demand balance (dry year critical / peak conditions)	Ml/d	0.00
21	Total supply side enhancements to the supply demand balance (dry year annual average conditions)	Ml/d	0.00
22	Total demand side enhancements to the supply demand balance (dry year critical / peak conditions) ***(See Note 12)***	Ml/d	0.00
23	Total demand side enhancements to the supply demand balance (dry year annual average conditions ***(See Note 13)***	Ml/d	0.00
24	Energy consumption - network plus ***(See Note 14)***	kWh	183,050
25	Energy consumption - water resources ***(See Note 15)***	MWh	54,162
26	Energy consumption – wholesale ***(See Note 16)***	MWh	237,212
27	Peak factor ***(See Note 17)***	%	15.79%
28	Mean zonal compliance	%	99.96%
29	Volume of Leakage above or below the sustainable economic Level ***(See Note 18)***	Ml	-135.898

4Q – Non-financial data for properties, population and other for the year ended 31 March 2018 – wholesale water (continued)

Notes

1) These are 'annual average' counts. Movement is expected given meter optants and new connections.

2) A slight decrease from last year due to a focus on replacing internal meters with external meters where possible to improve access when reading meters.

3) The unmeasured base has reduced as expected due to customers opting for meters.

4) The number of connected properties has increased as expected due to new connections.

5) The replacement of meters is on a reactive basis.

6) Optants have decreased as a result of a change in the structure of our HelpU social tariff implemented at the start of 2017/18.

7) We do not have a selective meter policy.

8) The process is unchanged – movement is expected in line with growth in the underlying ONS / WG mid-year estimates (MYE) of 0.5%. Our total resident population is based on the MYE for 2016 at postcode areas, procured from CACI Ltd.

9) As per RAG4.07 guidance void properties are now included in this number.

10) The 20,078 km^2 excludes five km^2 of Inset Appointment areas.

11) We have improved our data capture system this year and implemented a process to capture the number of lead communication pipes replaced at customers' requests.

12) The company does not operate demand side enhancements during dry year critical / peak conditions or in dry years as a policy. Demand side enhancements are undertaken as a baseline activity within given WRZs. Any volumes have therefore been reported under 'Line: Total demand side enhancements to the supply demand balance (dry year critical / peak conditions)'. The volumes are consistent with the activity undertaken as part of WRMP14 final planning options and the company SELWE target. The zero savings reported is consistent with these targets. It is also assumed that this is reported as a wholesale activity at this stage.

4Q – Non-financial data for properties, population and other for the year ended 31 March 2018 – wholesale water (continued)

13) Given the above (i.e. reported under Line 22), savings are reported as 'zero'.

14) The figure entered for this line (183,050) is based on a unit of MWh instead of the kWh unit suggested. This will align with the subtotal on line 26. The energy consumption - network plus figure in kWh is 183,050,242. Based on RAG 4.07 we are now reporting energy consumption for Raw Water Pumping Stations that pump directly into a water resources asset (i.e. reservoir) to "water resources". In last year's submission, the energy consumption was split between "network plus" and "water resources" for these sites. In addition, energy consumption used for fleet transport is now split between "network plus" and "water resources" - previously this was all reported against "network plus".

15) The figure to three DP is 54,161.967 MWh

16) Energy consumption continues to increase year on year. However, 20% of the increase from last year's figure is as a result of the adverse weather in March 2018. The figure for this line three DP is 237,212.209 MWh.

17) The maximum day rolling average consumption (i.e. DI less Leakage) for each WRZ is determined and summed to give the total maximum 7day rolling consumption for the company (region). This is then compared to the annual Average Consumption for the Company to give a relative peak factor. The values are expressed as the % (+ve) increase or (-ve) decrease from the relative Annual Average Consumption value for that given year. The % increase must be applied to consumption only (DI less Leakage). Leakage is then added back to Peaked Consumption to determine peaked DI.

18) This is the equivalent of -0.37Ml/d. The 2017-18 MOS-F2 (Leakage) performance is below our PR14 SELL target. This is an annualised number derived from our PR14 SELL target less MOS-F2 performance multiplied by the year days. Negative volumes are indicative of below target performance.

4R – Non-financial data for wastewater network and sludge for the year ended 31 March 2018 – wholesale wastewater

Line	Wastewater network		£000
1	Connectable properties served by s101A schemes completed in the report year ***(See Note 1)***	nr	10
2	Number of s101A schemes completed in the report year ***(See Note 1)***	Nr	1
3	Total pumping station capacity ***(See Note 2)***	KW	60,625
4	Number of network pumping stations ***(See Note 3)***	nr	2,402
5	Total number of sewer blockages	nr	22,612
6	Total number of gravity sewer collapses	nr	635
7	Total number of sewer rising main bursts / collapses	nr	77
8	Number of combined sewer overflows ***(See Note 4)***	nr	2,003
9	Number of emergency overflows ***(See Note 4)***	nr	516
10	Number of settled storm overflows ***(See Note 4)***	nr	276
11	Sewer age profile (constructed post 2001) ***(See Note 5)***	km	1,599
12	Volume of trade effluent	Ml/d	10,963.21
13	Volume of wastewater receiving treatment at sewage treatment works ***(See Note 6)***	Ml/yr	551,701.48
14	Length of gravity sewers rehabilitated ***(See Note 7)***	km	18
15	Length of rising mains replaced or structurally refurbished	km	1
16	Length of foul (only) public sewers	km	5,360
17	Length of surface water (only) public sewers	km	3,371
18	Length of combined public sewers	km	8,727
19	Length of rising mains	km	1,273
20	Length of other wastewater network pipework	km	354
21	Total length of "legacy" public sewers as at 31 March	km	**19,085**
22	Length of formerly private sewers and lateral drains (s105A sewers) ***(See Note 8)***	km	17,175

4R - Wastewater network and sludge for the year ended 31 March 2018 – Wholesale wastewater (continued)

Line	Sludge		£000
23	Total sewage sludge produced, treated by incumbents	ttsd/year	69.7
24	Total sewage sludge produced, treated by 3rd party sludge service provider	ttsd/year	0
25	**Total sewage sludge produced**		**69.7**
26	Percentage of sludge produced and treated at a site of STW and STC co-location ***(See Note 9)***	%	78.36%
27	Total sewage sludge disposed by incumbents ***(See Note 10)***	ttsd/year	27.5
28	Total sewage sludge disposed by 3rd party sludge service provider ***(See Note 11)***	ttsd/year	14.6
29	**Total sewage sludge disposed**		**42.0**
30	Total measure of intersiting 'work' done by pipeline ***(See Note 12)***	ttsd*km/year	-
31	Total measure of intersiting 'work' done by tanker ***(See Note 13)***	ttsd*km/year	302
32	Total measure of intersiting 'work' done by truck ***(See Note 14)***	ttsd*km/year	1,063
33	**Total measure of intersiting 'work' done (all forms of transportation)**		**1,365**
34	Total measure of intersiting 'work' done by tanker (by volume transported) ***(See Note 13)***	m3*km/year	8,354,650
35	Total measure of 'work' done in sludge disposal operations by pipeline ***(See Note 15)***	ttsd*km/year	-
36	Total measure of 'work' done in sludge disposal operations by tanker ***(See Note 16)***	ttsd*km/year	4
37	Total measure of 'work' done in sludge disposal operations by truck ***(See Note 17)***	ttsd*km/year	1,242
38	**Total measure of 'work' done in sludge disposal operations (all forms of transportation)**		**1,246**
39	Total measure of 'work' done by tanker in sludge disposal operations (by volume transported) ***(See Note 18)***	ttsd*km/year	113,353
40	Chemical P sludge as percentage of sludge produced at STWs ***(See Note 19)***	%	31.87

4R – Non-financial data for wastewater network and sludge for the year ended 31 March 2018 – wholesale wastewater (continued)

Notes

1) The data takes account of all duty properties (i.e. "polluting" or "likely to pollute") that have been identified in the s101a assessment report (or Determination Report where applicable) that are either connected or able to connect to the completed s101a scheme reported in line 2**.**

2) The increase in the number is attributable to a combination of improvement in the data available and further adoptions of pumping stations in the course of the year.

3) We do not have a complete data set of kW values and last year we infilled using the average kW rating across those pumps that do not have a rating. This year, we have used an infill methodology based on the “Pump Purpose” characteristic. This is an improvement on the methodology used last year and we believe that it generates a more accurate figure. It partly accounts for the drop in capacity compared to last year despite the increase in the number of pumping stations (reported in line 3).

4) As part of a Data Improvement Plan, and using a field entitled “link between the permit and the CSO”, we have reviewed the environmental permits relating to CSOs and by reference to the “discharge type” characteristic identified we have assigned the particular asset to the appropriate line 8, 9 or 10. Where we do not have a “link between the permit and the CSO”, the location characteristic used to populate these lines in previous years is used. Although the total number of assets in lines 8, 9 and 10 are unchanged from last year, the split as between combined sewer overflows, emergency overflows and settled storm overflows has changed. However, we believe that this has improved our confidence in the data and provides a more accurate and reliable return.

5) The total length of PST sewers currently held within GIS represents approximately 22% of the total PST sewers estimated. In order to account for the total length of PST sewers constructed post 2001, the percentage of public sewers constructed between 2001 and 2011 was calculated and an equal percentage of PST sewers added to the total of all public sewers constructed post 2001. Figures reported previously would be impacted by this change in methodology.

4R – Non-financial data for wastewater network and sludge for the year ended 31 March 2018 – wholesale wastewater (continued)

6) The increase in the number reported is attributable to a larger amount of rainfall in the year and natural growth. The annual flow return to the EA/NRW is based on calendar year. However, the period covered for this line is the financial year 1 April 2017 to 31 March 2018. The sum of the Total Daily Volume (TDV) for MCERT and non-MCERT sites is used. The non-MCERT calculation is based on the formula of consumption and population and the MCERT sites are calculated from the average daily volume. Our reported figure is based on the calculated sum of the Total Daily Volume (TDV). We have calculated volumes for non-MCERT sites using the industry recognised equation of PG+I+E for daily volume which is then totalled for the year. The MCERT sites have been calculated using the measured TDV for each site average over the days data that is available and then totalled for a year. There is a margin of error on MCert meters as they are certified to a maximum error rate of 8%, which accounts for the low confidence grade ascribed to this line in previous submissions.

7) We have maintained a consistent methodology for the reporting of sewer rehabilitation. This is based on restoring manhole-manhole length of sewer to operational service, by repairing the sewer defects within that length.

8) Modelled length of sewers based on the WRC model.

9) In the course of the year we sought clarification from Ofwat as follows:

"The definition clarifies that a sludge treatment centre is a site, where thickening to >10% dried solids, and/or dewatering and or microbial reduction is undertaken.

Do you classify as co-located the STW sites where there is a STC which produces untreated raw sludge that is thickened to greater than 10% dried solids but the sludge goes on for treatment at another STC before it is disposed?"

Having received a response from Ofwat, we are now including all those sites that produce untreated raw sludge (thickened to greater than 10% dried solids), where the sludge goes on for treatment at another Sludge Treatment Centre prior to disposal. Last year, we only reported on the 13 sites where fully treated sludge left the site. This year we have reported on all 28 sites.

10) South Wales sludge disposal was fully insourced in 2017/18.

11) North Wales sludge disposal was outsourced for 2017/18 but this line will be zero in 2018/19, as from 1 April 2018 all sludge disposal has been undertaken in house.

4R – Non-financial data for wastewater network and sludge for the year ended 31 March 2018 – wholesale wastewater (continued)

12) No pumped pipeline from any STW to STC.

13) The volume and suspended solids is obtained from our logger data. Where logger data is not available, the distance is estimated using the shortest main road distance between the works using google maps and verified against tracker data, i.e. where we have the ability to record actual mileage. In the year, the volume of sludge tankered was slightly lower than in previous years. Last year, we included in this line the sludge transported from Cilfynydd WWTW directly via a gravity pipeline to the inlet at Cardiff WWTW. There was therefore an element of double counting which we have now corrected. The net effect of this is a 20% reduction in the 2016/17 reported figure of 400 ttds*km/year to 318 ttds*km/year.

14) Product weight on sludge cake is obtained from weighbridge data and the average suspended solids for each works. The distance is estimated using the shortest main road distance between the works using google maps and verified against tracker data, i.e. where we have the ability to record actual mileage data.

15) No sludge is disposed via pipeline

16) Only one site remains that disposes via tanker and this site is scheduled for decommissioning in 2018. The total measure of work done is calculated using the average tonnes of dry solids and the average distance to farm for STWs located in rural areas.

17) This calculation is a factor of mileage and total dry solids. Not all mileage is recorded and we have therefore estimated the distance travelled between the sludge treatment centres and farms.

18) We have only one site that disposes of sludge via tanker and this site is scheduled for decommissioning in 2018.

19) The methodology for this line has been updated to complete the market information request and this involves working out the percentage of sludge generated from the phosphorous (P) sites compared to the total sludge produced. We have reviewed sites with P limits and removed three previously reported as consents. However, four that were missing have been added. The trend now shows a sharp increase in 2015 when the majority of P schemes were commissioned at the end of AMP5. In line with all guidance on 4R, sludge produced at Chemical P sites are measured at the boundary between “Network plus” and Bio resources Business and worked out as a total proportion of the number in Table 4R line 23. These changes have resulted in a reduction of 6% in the reported value. Last year, we reported 32.7% which would have been 26.12% under the revised methodology.

4S – Non-financial data for sewage treatment for the year ended 31 March 2018 – wholesale wastewater

		Treatment Categories							
			Secondary			Tertiary			
		Primary	Activated Sludge	Biological	A1	A2	B1	B2	Total
Load received at sewage treatment works in 2017/18									
Load received by STWs in size band 1	Kg BOD_5/day	159	260	2,037	103	41	223	-	**2,823**
Load received by STWs in size band 2	Kg BOD_5/day	28	352	2,098	84	74	324	-	**2,960**
Load received by STWs in size band 3	Kg BOD_5/day	-	1,781	5,267	159	460	1,078	567	**9,312**
Load received by STWs in size band 4	Kg BOD_5/day	-	3,381	8,964	774	2,961	2,364	2,412	**20,856**
Load received by STWs in size band 5	Kg BOD_5/day	-	5,825	3,857	4,681	4,736	5,617	1,549	**26,265**
Load received by STWs above size band 5	Kg BOD_5/day	-	119,236	4,366	-	47,609	-	12,090	**183,301**
Total load received		**187**	**130,835**	**26,589**	**5,801**	**55,881**	**9,606**	**16,618**	**245,517**
Load received from trade effluent customers at treatment works	Kg BOD_5/day	-	-	-	-	-	-	-	19,584
Number of sewage treatment works at 31 March 2018									
STWs in size band 1	nr	68	38	312	11	2	27	-	**458**
STWs in size band 2	nr	1	10	86	3	1	15	-	**116**
STWs in size band 3	nr	-	25	84	2	4	13	4	**132**
STWs in size band 4	nr	-	14	39	3	8	9	7	**80**
STWs in size band 5	nr	-	6	4	4	4	6	2	**26**
STWs above size band 5	nr	-	9	1	-	10	-	3	**23**
Total number of works		**69**	**102**	**526**	**23**	**29**	**70**	**16**	**835**

4S – Non-financial data for sewage treatment for the year ended 31 March 2018 – wholesale wastewater (continued)

		Treatment work consents Phosphrous				
		<=0.5mg/l	>0.5 to <=1mg/l	>1mg/1	No permit	Total
Load received at sewage treatment works in 2017/18						
Load received by STWs in size band 1	Kg BOD_5/day	-	-	-	2,823	**2,823**
Load received by STWs in size band 2	Kg BOD_5/day	19	-	45	2,895	**2,959**
Load received by STWs in size band 3	Kg BOD_5/day	114	376	-	8,823	**9,313**
Load received by STWs in size band 4	Kg BOD_5/day	-	3,149	547	17,159	**20,855**
Load received by STWs in size band 5	Kg BOD_5/day	1,725	5,987	5,336	13,216	**26,264**
Load received by STWs above size band 5	Kg BOD_5/day	14,379	13,582	6,761	148,579	**183,301**
Total load received		**16,237**	**23,094**	**12,689**	**193,495**	**245,515**
Number of sewage treatment works at 31 March 2018						
STWs in size band 1	nr	-	-	-	458	**458**
STWs in size band 2	nr	1	-	2	113	**116**
STWs in size band 3	nr	1	4	-	127	**132**
STWs in size band 4	nr	-	11	2	67	**80**
STWs in size band 5	nr	2	6	5	13	**26**
STWs above size band 5	nr	3	3	2	15	**23**
Total number of works		**7**	**24**	**11**	**793**	**835**

4S – Non-financial data for sewage treatment for the year ended 31 March 2018 – wholesale wastewater

		Treatment work consents BOD$_5$					
		<=7mg/l	>7 to <=10mg/l	>10 to <=20mg/l	>20mg/1	No permit	Total
Load received at sewage treatment works in 2017/18							
Load received by STWs in size band 1	Kg BOD$_5$/day	-	3	250	1,457	1,113	**2,823**
Load received by STWs in size band 2	Kg BOD$_5$/day	-	17	363	2,442	138	**2,960**
Load received by STWs in size band 3	Kg BOD$_5$/day	-	192	1,474	7,596	51	**9,313**
Load received by STWs in size band 4	Kg BOD$_5$/day	753	787	3,953	15,361	-	**20,854**
Load received by STWs in size band 5	Kg BOD$_5$/day	-	4,028	4,124	18,113	-	**26,265**
Load received by STWs above size band 5	Kg BOD$_5$/day	-	-	26,897	156,404	-	**183,301**
Total load received		**753**	**5,027**	**37,061**	**201,373**	**1,302**	**245,516**
Number of sewage treatment works at 31 March 2018							
STWs in size band 1	nr	-	2	29	157	270	**458**
STWs in size band 2	nr	-	1	17	92	6	**116**
STWs in size band 3	nr	-	3	22	106	1	**132**
STWs in size band 4	nr	2	4	16	58	-	**80**
STWs in size band 5	nr	-	4	4	18	-	**26**
STWs above size band 5	nr	-	-	4	19	-	**23**
Total number of works		**2**	**14**	**92**	**450**	**277**	**835**

4S – Non-financial data for sewage treatment for the year ended 31 March 2018 – wholesale wastewater (continued)

		Treatment work consents Ammonia					
		<=1mg/l	>1 to <=3mg/l	>3 to <=10mg/l	>10mg/1	No permit	Total
Load received at sewage treatment works in 2017/18							
Load received by STWs in size band 1	Kg BOD_5/day	-	15	204	463	2,142	**2,824**
Load received by STWs in size band 2	Kg BOD_5/day	-	-	481	765	1,714	**2,960**
Load received by STWs in size band 3	Kg BOD_5/day	-	81	1,773	2,476	4,983	**9,313**
Load received by STWs in size band 4	Kg BOD_5/day	-	937	5,600	4,620	9,698	**20,855**
Load received by STWs in size band 5	Kg BOD_5/day	-	4,028	6,807	5,863	9,567	**26,265**
Load received by STWs above size band 5	Kg BOD_5/day	-	-	41,651	92,292	49,359	**183,302**
Total load received		**-**	**5,061**	**56,516**	**106,479**	**77,463**	**245,519**
Number of sewage treatment works at 31 March 2018							
STWs in size band 1	nr	-	3	26	51	378	**458**
STWs in size band 2	nr	-	0	22	35	59	**116**
STWs in size band 3	nr	-	1	25	36	70	**132**
STWs in size band 4	nr	-	3	24	19	34	**80**
STWs in size band 5	nr	-	4	7	6	9	**26**
STWs above size band 5	nr	-	0	9	6	8	**23**
Total number of works		**-**	**11**	**113**	**153**	**558**	**835**

4S – Non-financial data for sewage treatment for the year ended 31 March 2018 – wholesale wastewater (continued)

	000s
Population equivalent	
Current population equivalent served by STWs	3,941.603
Current population equivalent served by discharge relocation schemes	-
Current population equivalent served by filter bed STWs with tightened/new P consents	15.362
Current population equivalent served by activated sludge STWs with tightened/new P consents	-
Current population equivalent served by groundwater protection schemes	-
Current population equivalent served by STWs with a Flow1 driver scheme	-
Current population equivalent served by STWs with tightened/new N consents	-
Current population equivalent served by STWs with tightened/new sanitary parameter consents	5.256
Current population equivalent served by STWs with tightened/new UV consents	-
Population equivalent treatment capacity enhancement	130.932

4T – Non-financial data for sludge treatment for the year ended 31 March 2018 – wholesale wastewater

	By incumbent	By 3rd party sludge service providers
Sludge treatment process		
% Sludge – untreated	0.0%	0.0%
% Sludge treatment process - raw sludge liming ***(See Note 1)***	8.3%	0.0%
% Sludge treatment process - conventional AD ***(See Note 1)***	31.6%	0.0%
% Sludge treatment process- advanced AD ***(See Note 1)***	60.2%	0.0%
% Sludge treatment process - incineration of raw sludge	0.0%	0.0%
% Sludge treatment process - incineration of digested sludge	0.0%	0.0%
% Sludge treatment process - phyto-conditioning/composting	0.0%	0.0%
% Sludge treatment process - other (specify)	0.0%	0.0%
% Sludge treatment process - Total	**100.0%**	**0.0%**
(Un-incinerated) sludge disposal route		
% Sludge disposal route - landfill, raw	0.0%	0.0%
% Sludge disposal route - landfill, partly treated	0.0%	0.0%
% Sludge disposal route - land restoration / reclamation	0.0%	0.0%
% Sludge disposal route - sludge recycled to farmland ***(See Note 2)***	65.3%	34.7%
% Sludge disposal route - other (specify)	0.0%	0.0%
% Sludge disposal route - Total	**65.3%**	**34.7%**

4T – Non-financial data for sludge treatment for the year ended 31 March 2018 – wholesale wastewater (continued)

Notes

1) We have less advanced AD (60.2% now and 64.4% last year) and more conventional AD (31.6% now and 25.5% last year). This arises because sludge growth at conventional digestion sites such as Cog Moors, Five Fords and Eign has increased in the year. This increase in sludge produced at conventional sites has moved the % split giving a false impression that the use of AAD has reduced. AAD throughput remains the same at 42ttds and there has been a slight drop in liming but this still accounts for around 6ttds. Conventional digestion throughput has increased from nearly 17ttds to nearly 22ttds which had skewed the percentages."

2) The change from last year (when all sludge recycling was provided by 3rd party sludge service providers) reflects the fact that in the course of the year sludge recycling in South Wales was insourced.

4U – Non-financial data for properties, population and other for the year ended 31 March 2018

Line	Properties and population		Current year
1	Residential properties connected during the year ***(See Note 1)***	000	8.139
2	Business properties connected during the year ***(See Note 1)***	000	0.360
3	Residential properties billed unmeasured sewage ***(See Note 2)***	000	723.813
4	Residential properties billed measured sewage ***(See Note 2)***	000	587.535
5	**Residential properties billed for sewage**	000	**1,311.348**
6	Business properties billed unmeasured sewage ***(See Note 2)***	000	7.317
7	Business properties billed measured sewage ***(See Note 2)***	000	65.545
8	**Business properties billed for sewage**	000	**72.862**
9	Void properties ***(See Note 3)***	000	65.699
10	**Total number of properties**	000s	**1,449.909**
11	Resident population	000	3,099.044
12	Non-resident population ***(See Note 4)***	000	158.341
	Other		
13	Energy consumption - network plus ***(See Note 5)***	MWh	242.448.457
14	Energy consumption – sludge ***(See Note 5)***	MWh	59,175.848
15	Energy consumption - wholesale	MWh	**301,624.305**
16	Population resident in National Parks, SSSIs and Areas of Outstanding Natural Beauty (AONBs) ***(See Note 6)***	000s	154.391
17	Total sewerage catchment area ***(See Note 7)***	Km2	1,479
18	Designated bathing waters ***(See Note 8)***	nr	103
19	Number of intermittent discharge sites with event duration monitoring ***(See Note 9)***	nr	445
20	Number of monitors for flow monitoring at STWs ***(See Note 9)***	nr	-
21	Number of odour related complaints	nr	2,715
22	Volume of storage provided at CSOs, storm tanks, etc to meet spill frequency objectives ***(See Note 10)***	m3	50
23	Total volume of network storage ***(See Note 11)***	m3	2,598,433

4U – Non-financial data for properties, population and other for the year ended 31 March 2018 (continued)

Notes

1) New connections figures are based on new accounts entered onto our billing system. New connections notifications we have received from other water companies who bill on our behalf (this year Severn Trent Water and Dee Valley Water) are also included.

2) In accordance with RAG 4.07, these are the average counts for the year based on the average of monthly extracts from our billing system.

3) Data improvements have enabled an improved estimate of council voids to be included in the 2017/18 reported figure.

4) The Non-residential Population Study was updated during 2015/16 by GTS Ltd. This is not updated each year.

5) In the course of the year we reviewed the fleet transport energy consumption allocation (diesel and petrol use) as between Network+ and Sludge. Previously, 100% of the consumption was allocate to Sludge. The consumption has been aligned with the split used to allocate general energy consumption and is now based on head count numbers.

6) The figure of 154.391 has been calculated using a new methodology which utilises Census data and Output areas instead of applying a % calculated from the number of SAP properties within the SSSI etc areas being applied to the total resident population figure reported in Line 11. By applying the new methodology to the previous two years' totals, the figures are as follows - 2015-16 153.225; 2016-17 153.661; 2017-18 154.391.

7) The data has been obtained from extracts from the waste catchment layer from within our GIS system. The nature of the calculation and the use of polygon datasets maintained within our GIS system means that we cannot attribute a high confidence grade to this reported number. However, in the course of the next year we will review the methodology underpinning this assessment with a view to improving the quality of the data. This will involve re-drawing some of the polygons used to more accurately define our sewerage areas. We will report on progress in next year's submission.

8) This is derived from NRW's published Bathing Waters results 2017 and confirmed in writing with NRW. There were 104 designated Bathing Waters in Wales for 2017/18. However, one of these (Llyn Padarn, designated in 2014) is inland and has been excluded in accordance with the line definition for Bathing Waters.

9) Outputs are signed off by NRW as part of the AMP6 NEP.

4U – Non-financial data for properties, population and other for the year ended 31 March 2018 (continued)

10) Generally, our approach in this period has been to develop Sustainable Urban Drainage Solutions (SUDS) which have been undertaken as an alternative to building storage to meet new or tightened spill frequency requirements. Therefore, costs have been incurred within this period with no reportable storage volume. However, in 2017-18 there was one NEP scheme at Sketty Green CSO which included a volume of new or additional storage ($5m^3$).

11) Our reported figure is based on calculated volumes of our sewer network only (excluding manholes). We do not currently have volume data for our off-line storage tanks. We have calculated volumes for our digitised public and transferred sewers and applied a pro-rata calculation to account for our non-digitised transferred sewers.

4V – Operating cost analysis for the year ended 31 March 2018 – water resources

	Impounding Reservoir	Pumped Storage	River Abstractions	Groundwater, excluding MAR water supply schemes	Artificial Recharge (AR) water supply schemes	Aquifer Storage and Recovery (ASR) water supply schemes	Total
	£m	£m	£m	£m	£m	£m	£m
Opex Analysis							
Power	(0.188)	(0.014)	4.207	0.364	-	-	**4.369**[1]
Income Treated as negative expenditure	(4.183)	(0.064)	(0.149)	(0.012)	-	-	**(4.408)**[2]
Local authority and Cumulo rates	0.283	0.248	0.099	0.116	-	-	**0.746**[3]
Other direct operating expenditure	19.031	2.670	5.347	0.646	-	-	**27.694**[4]
Other indirect operating expenditure	1.865	0.164	1.506	0.181	-	-	**3.716**
Total operating expenditure (excluding 3rd party)	**16.808**	**3.004**	**11.010**	**1.295**	**-**	**-**	**32.117**
Depreciation	4.079	0.850	0.340	0.397	-	-	**5.666**[5]
Total operating costs (excluding 3rd party)	**20.887**	**3.854**	**11.350**	**1.692**	**-**	**-**	**37.783**

[1] The increase in power compared to last year reflects the fact that Nantgaredig is now reported in "river abstractions" instead of "raw water distribution.

[2] The majority of this relates to hydro income. However, there is a small element (£261k) that relates to water recharged to the regulated waste business. Using the water attribution costing model, this is allocated between water upstream services and further, to water resources, using EA licences as the cost driver.

[3] There are no local authority rates and the cumulo rates have been allocated using MEAV as the cost driver. This is the same methodology used as last year.

[4] This includes IRE expenditure of £15m, of which £14m has been allocated on a causal basis, with the remaining £1m allocated based on the same apportionment used within the causal basis. These costs were previously reported as indirect costs.

[5] We have made the assumption that this relates to both the depreciation of tangible fixed assets and the amortisation of intangible assets. The split across areas is based on Gross MEAV.

4V – Operating cost analysis for the year ended 31 March 2018 – water resources (continued)

		Water Resources	Raw water distribution	Water Treatment	Treated water distribution	Total
Other expenditure – Wholesale water						
Employment costs - directly allocated	£m	4.028	0.849	19.000	28.040	**51.917**
Employment costs - indirectly allocated	£m	2.361	0.345	5.887	10.015	**18.608**
Number FTEs consistent with 4V.9 above	nr	98	13	373	595	**1,079**
Number FTEs consistent with 4V.10 above	nr	37	6	93	158	**294**
Costs associated with Traffic Management Act	£m	-	-	-	-	**-**
Service charges						
Canal & River Trust service charges and discharge consents	£m	-	-	-	-	**-**
Environment Agency service charges/ discharge consents	£m	8.576	-	0.267	-	**8.843**
Other service charges / permits	£m	-	-	-	-	**-**
Statutory water softening	£m	-	-	-	-	**-**

4W – Operating cost analysis for the year ended 31 March 2018 – sludge treatment

	Untreated sludge	Raw sludge liming	Conventional AD	Advanced AD	Incineration of raw sludge	Incineration of digested sludge	Photo conditioning/ Composting	Other	Total
	£m[5]	£m	£m	£m	£m	£m	£m	£m	£m
Sludge treatment type									
Power	-	0.092	0.397	0.633	-	-	-	-	**1.122**[1]
Income treated as negative expenditure	-	0.002	(1.147)	(1.517)	-	-	-	-	**(2.663)**[2]
Local authority and Cumulo rates	-	0.049	0.296	0.192	-	-	-	-	**0.537**
Other direct operating expenditure	-	0.613	2.465	3.872	-	-	-	-	**6.950**[6]
Other indirect operating expenditure	-	0.289	1.096	1.765	-	-	-	-	**3.150**[3]
Total operating expenditure (excluding 3rd party)	**-**	**1.044**	**3.107**	**4.946**	**-**	-	-	-	**9.096**
Depreciation	-	0.686	3.160	12.541	-	-	-	-	**16.387**
Total operating costs (excluding 3rd party)	**-**	**1.730**	**6.267**	**17.486**	-	-	-	-	**25.484**
Sludge disposal route									
Power	-	-	-	-	-	-	-	-	**-**
Income treated as negative expenditure	-	-	-	-	-	-	-	-	**-**
Local authority and Cumulo rates	-	-	-	-	-	-	-	-	**-**
Other direct operating expenditure	-	0.477	1.009	1.748	-	-	-	-	**3.234**[4]
Other indirect operating expenditure	-	0.193	0.409	0.709	-	-	-	-	**1.311**
Total operating expenditure (excluding 3rd party)	**-**	**0.670**	**1.418**	**2.457**	**-**	**-**	**-**	**-**	**4.545**
Depreciation	-	-	-	-	-	-	-	-	**-**
Total operating costs (excluding 3rd party)	**-**	**0.670**	**1.418**	**2.457**	-	-	-	-	**4.545**

[1] Power costs at Advanced Digestion sites have increased compared to last year. In the course of the year, we experienced operational issues at Afan STW and had to purchase electricity from the grid rather than produce this ourselves.

[2] Other direct costs have increased by £1.4m since last year and this relates mainly to issues at Afan STW which resulted in higher employment costs (due to lower capitalisation and increased headcount). There were also direct costs of £4.7m for untreated sludge/sludge tankering.

[3] These costs have increased by £0.8m since last year. Some £0.6m of this figure relates to the cost of water used at a site being recharged by the regulated water business.

[4] Other direct cost increases relate to insourcing the agronomy activities

[5] The original table reported sludge based on process at sludge site level, irrespective of whether the sludge was to be transported to another sludge centre for further treatment; which resulted in a significant proportion of costs being reported as untreated sludge. However, as a result of preparing the PR19 tables, we believe that the table should align with table 4T and we have amended the table accordingly.

[6] Sludge transport costs of £4.723have been excluded from version 2 in line with the regulatory accounts working group housekeeping note.

V2.10.09.18

4W – Operating cost analysis for the year ended 31 March 2018 – sludge treatment (continued)

Other expenditure – Wholesale wastewater		Network plus sewage collection	Network plus sewage treatment	Sludge	Total
Other analysis					
Employment costs - directly allocated	£m	15.744	14.324	8.535	**38.603**[5]
Employment costs - indirectly allocated	£m	7.754	7.120	3.821	**18.695**
Number FTEs consistent with 4W.17	nr	440	311	177	**928**
Number FTEs consistent with 4W.18 above	nr	123	113	60	**296**
Costs associated with Traffic Management Act	£m	0.028	-	-	**0.028**
Costs associated with Industrial Emissions Directive	£m	-	-	0.037	**0.037**
Service charges					
Canal & River Trust service charges and discharge consents	£m	0.015	-	-	**0.015**
Environment Agency service charges/ discharge consents	£m	1.564	3.427	-	**4.991**
Other service charges / permits	£m	-	-	-	**-**

[5] Sludge FTE numbers and employment costs have increased significantly and reflect the maintenance activities at co-located sites as well as the increase in the capital programme for sludge. In addition, the costs arising from FTEs working at co-located sites were previously treated as Sewage Treatment costs rather than being split across the respective activities based on the time spent on the particular activity (better information now available).

Other – Bidding Activity – Bioresources market

		Total
Summary of market activity		
Total number of contracts held with a third party at end of the financial year	nr	11
Total amount paid on contracts during the financial year	£000s	4,195.469
Number of different suppliers at the year end	nr	9
Number of contracts ended during the year	nr	-
Number of contracts renewed during the year	nr	-
Number of new contracts that have been agreed during the year	nr	-
Formal tender process		
Number of formal tenders you issued during the year	nr	1
Total number of bids received on all your tenders	nr	6
Number of tenders you awarded during the year	nr	-
Informal bidding process		
Number of offers made by a third party outside the formal tender process during the financial year	nr	-
The number of successful offers	nr	-
Treatment of sludge		
Total quantity of sludge produced in performance of the company's functions as a sewerage undertaker	ttds/year	69.75
Quantity of sludge treated in-house	ttds/year	69.75
Quantity of sludge treated by a third party	ttds/year	-
Number of contracts to provide sludge treatment	nr	-
Number of suppliers with contracts for sludge treatment	nr	-

Other – Bidding Activity – Bioresources market (continued)

		Total
Sludge transported		
Total quantity of sludge transported by road	ttds/year	75.44
Quantity of sludge transported by road in-house by your own bioresources service	ttds/year	8.22
Quantity of sludge transported by road by a third party	ttds/year	67.22
Number of contracts to provide sludge transport services	nr	11
Number of suppliers with contracts for sludge transportation	nr	9
Sludge recycled or disposed		
Total quantity of sludge recycled or disposed	ttds/year	42.04
Quantity of sludge recycled or disposed in-house by your own bioresources service	ttds/year	27.47
Quantity of sludge recycled by a third party	ttds/year	14.57
Number of contracts held to provide sludge recycling or disposal services	nr	2
Number of suppliers with contracts for sludge recycling or disposal	nr	1

Notes to the regulatory accounts

Accounting policies

Basis of preparation

The principal accounting policies adopted in the preparation of the regulatory financial statements included in Parts 1, 2 and 4 are set out below. They have been prepared in accordance with International Financial Reporting Standards (IFRS) and IFRS Interpretations Committee (IFRIC) interpretations as adopted by the European Union and the Companies Act 2006 applicable to companies reporting under IFRS and IFRIC interpretations, except where Ofwat's Regulatory Accounting Guidelines (RAGs) require a departure from these (such instances are highlighted on the face of the principal regulatory financial statements in Part 1).

The regulatory financial statements have been prepared under the historical cost convention, as modified by the revaluation of fixed assets, financial assets and financial liabilities (including derivative financial instruments) at fair value through profit or loss.

Basis of consolidation

The regulatory financial statements report the results of Dŵr Cymru Cyfyngedig (DCWW) and comprise all of the activities of the appointed business.

Appointed and non-appointed businesses

Each non-appointed activity is treated separately within the company's accounting records. Examples of non-appointed activities include tankered waste, property searches and recreation and amenity services. Revenues, costs, assets and liabilities are generally directly allocated to particular business activities. General and support costs have been apportioned from the non-appointed business on an activity cost basis.

Notes to the regulatory accounts (continued)

Accounting policies (continued)

Revenue recognition

Revenue represents the income receivable in the ordinary course of business from the regulated activities of the business in the year exclusive of value added tax. Charges billed to customers for water and wastewater services are recognised in the period in which they are earned. An accrual is estimated for measured consumption that has not been billed.

The measured income accrual is an estimation of the amount of mains water and wastewater charges unbilled at the balance sheet date. The accrual is calculated using a defined methodology based upon average historical water consumption by customer and tariff and is recognised within revenue. The measured income accrual as at 31 March 2018 was £70.8m while amounts actually billed in 2018/19 totalled £71.4m the difference, which constitutes less than 1% of revenue, is not significant and is a consequence of the estimation techniques necessary to calculate the accrual.

Where an invoice has been raised, or payment made but the service has not been provided in the year, this is treated as a payment in advance and is not recognised in the current year's revenue but within creditors.

Charges on income arising from court, solicitors and debt recovery agency fees are credited to operating costs and added to the relevant customer accounts; they are not recognised within revenue.

In line with the regulatory guidelines we have changed our treatment of New Connection income, it is now treated as 'Other Income' in table 1a.

Notes to the regulatory accounts (continued)

Accounting policies (continued)

Revenue recognition (continued)

Bills raised for customers having a record of non-payment are recognised as revenue. Only in the following circumstances are bills not recognised as turnover:

a) Voids adjustment for local authority agreements. DCWW bills some local authorities for all of their tenanted premises whether occupied or not and the collection commission its pays includes an element in respect of voids. An adjustment is therefore made between commission costs (included in operating costs) and revenue in respect of the amount relating to voids; and
b) Where bills are subject to formal legal pricing disputes we do not recognise as turnover the disputed portion of bills raised.

Charging policy

Billing of unoccupied properties: an unoccupied property is a connected property or premises that is unoccupied and unfurnished and does not have use or any water or wastewater service. This definition is applied in the following ways:

a) Unmeasured supplies: if an unoccupied property is furnished normal charge will apply (subject to allowances e.g. if the sole occupier is in a nursing home, hospital, prison or is overseas long-term). Unfurnished and unoccupied properties do not incur charges unless they are in use e.g. under renovation or redecoration, in which case the customer will be offered the option of being compulsorily metered, continuing on unmeasured charges or being disconnected. Unmeasured properties will be billed a “surface water-only” charge is the water supply is temporarily disconnected.
b) Metered supplies: metered standing charges are applied to each metered property unless there is no water consumption, the property owner cannot be identified and it is unfurnished.

Notes to the regulatory accounts (continued)

Accounting policies (continued)

***Charging policy* (continued)**

Billing "the occupier": very few premises are billed in this manner; no bills are sent speculatively in this manner, only when there is evidence suggesting an actual occupier e.g. a visit, finance check or Land Registry search.

New properties: all new properties are metered. The developer, being the consumer, is billed for water and wastewater charges between the date of connection and first occupancy. Income from the developer for metered charges is recognised as revenue.

Bad debt policy

Our policy is to write off debt when it is shown that a debt is not collectable. A debt is regarded as being not 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 completed the full recovery process is held in an "end of line bucket" pending write-off. Write-offs are scheduled as part of a routine procedure, however initiatives continue to be taken in respect of "end of line" debt to review collectability and debts are currently only written off post completion of these initiatives.

Generally when debt reaches the "end of line bucket" the majority 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. As a consequence, the level of write-offs throughout the year is not monitored in isolation but as a component of the overall movement in collections when considering the level of bad debt provision required. No changes have been made to the write-off policy or procedures during the year.

Notes to the regulatory accounts (continued)

Accounting policies (continued)

Accounting separation policy

The regulatory accounts have been drawn up in accordance with Dŵr Cymru's Accounting Separation Methodology Statement[1]. The purpose of this document is to explain the systems, processes and allocation methods involved in the preparation and population of the accounting separation tables included within these regulatory accounts. The financial information used to populate the tables is processed and extracted from the company's accounting system and customer billing system.

Water and sewerage services

Alternative cost centre structures have been created (as part of Dŵr Cymru's overall accounting separation cost centre group) in the accounting system to allow water and sewerage service operational costs to be captured in a format that facilitates the completion of the water and sewerage service tables.

It contains specific cost centre groups for each of the water activities along with further groups capturing the cost of scientific services and general and support activities. A number of 'work management systems' have been introduced in recent years resulting in greater accuracy of cost allocation and a reduced incidence of manual allocations across activities.

[1] Available on our website, www.dwrcymru.com.

Notes to the regulatory accounts (continued)

Accounting policies (continued)

Accounting separation policy (continued)

Asset-related cost centres and most operational support staff can be attributed directly to individual water and wastewater activities. 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.

Retail service

An alternative cost centre structure has been created within the accounting system to allow retail operational costs to be captured in a format that facilitates the completion of the retail service table.

Non-operational costs are allocated directly to activities where possible; where this has not been possible cost drivers have been used to apportion costs in line with Ofwat's hierarchy of cost drivers.

Fixed assets

The fixed assets tables consist of capitalised assets as recorded on the fixed asset register plus assets under construction. The opening balances are reconciled to the previous year's closing balances and current year transactions are analysed as follows:

Notes to the regulatory accounts (continued)

Accounting policies (continued)

Accounting separation policy (continued)

Water and sewerage services (continued)

- Assets in the SAP register are allocated to cost collectors which identify the operational business owner. Each asset has an asset class which identifies the split between infrastructure, operational and other assets, and a review of the current year's expenditure is undertaken with reference to data capture sheets and meetings with capital operational managers to check that these have been allocated appropriately; and
- Retail asset costs have been allocated to household and non-household based on the number of bills raised and customer numbers for other assets.

Capitalisation policy

The economic value of the company's water and sewerage business is derived from the Regulatory Capital Value (RCV) set by Ofwat during its five-yearly price reviews. The company considers that a fair value approach to valuing its assets better reflects the underlying value of the assets than historical cost accounting which understates the assets' current value in use.

As at 31 March 2018 the total value of tangible and intangible fixed assets has been revalued to the company's 'shadow RCV', being the 31 March 2018 RCV published by Ofwat in its PR14 Final Determination as adjusted for the impact of any totex over/underspend and Outcome Delivery Incentive rewards/penalties. The classes of asset impacted are infrastructure assets and operational structures.

The carrying value of assets is reviewed for impairment if circumstances dictate that the carrying value may not be recoverable; asset lives and residual values are reviewed annually.

In accordance with RAG 1.06 para 1.6, in its regulatory financial statements the company has dis-applied the IAS 16 requirement to capitalise applicable borrowing costs.

Notes to the regulatory accounts (continued)

Accounting policies (continued)

Capitalisation policy (continued)

Infrastructure assets

Infrastructure assets comprise principally impounding reservoirs and a network of underground water and wastewater systems. For accounting purposes, the water system is segmented into components representing categories of asset classes with similar characteristics and asset lives. The wastewater system is segmented into components representing geographical areas, reflecting the way the company operates its wastewater activities.

Expenditure on infrastructure assets relating to increases in capacity, enhancements or material replacements of network components is treated as additions, which are included at cost. Expenditure incurred in repairing and maintaining the operating capability of individual infrastructure components, 'Infrastructure Renewals Expenditure', is expensed in the year in which the expenditure is incurred.

The depreciation charge for infrastructure assets is determined for each component of the network and is based on each component's cost, estimated residual value and the expected remaining average useful life. The useful economic lives of the infrastructure components range principally from 60 to 150 years.

Other assets

Other assets are depreciated on a straight-line basis over their estimated useful economic lives, which are as follows:

Freehold buildings:	60 years
Operational structures:	5-80 years
Plant, equipment and computer hardware:	3-40 years

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

Notes to the regulatory accounts (continued)

Accounting policies (continued)

Capitalisation policy (continued)

Intangible assets

Intangible assets, which comprise principally computer software, systems developments and research and development, are included at cost less accumulated amortisation. Cost reflects purchase price together any expenditure directly attributable to bringing the asset into use, including directly attributable internal costs.

Research expenditure is recognised as an expense as incurred. Costs incurred on development projects are recognised as intangible assets when the relevant recognition criteria are met (as per IAS 38).

The carrying values of intangible assets are reviewed for impairment if circumstances indicate they may not be recoverable. Intangible assets are amortised on a straight line basis over their estimated useful economic lives, which range between 3 and 20 years. These asset lives are reviewed annually.

Leased assets

Certain assets are financed by leasing arrangements which transfer substantially all the risks and rewards of ownership of an asset to the lessee (finance leases). These assets are capitalised and included in 'property, plant and equipment' with the corresponding liability to the lessor included within 'financial liabilities – borrowings'. Leasing payments consist of a capital element and a finance charge; the capital element reduces the obligation to the lessor and the finance charge is recognised over the period of the lease based on its implicit rate so as to give a constant rate of interest on the remaining balance of the liability.

All other leases are regarded as operating leases. Rental costs arising under operating leases are charged to the income statement on a straight-line basis over the period of the lease.

Notes to the regulatory accounts (continued)

Accounting policies (continued)

Capitalisation policy (continued)

Grants and customer contributions

Grants and customer contributions in respect of expenditure on property, plant and equipment have been offset against these assets.

Grants in respect of revenue expenditure are credited to the income statement over the same period as the related expenditure is incurred.

Capital expenditure programme incentive payments

The company's agreements with its construction partners involved in delivery capital programmes incorporate incentive bonuses payable after completion of the programmes. The cost of property, plant and equipment additions includes an accrual for incentive bonuses earned to date, relating to projects substantially completed at the year-end, where the likelihood of making the incentive in considered probable. Amounts recoverable from contract partners relating to targets not being achieved are recognised only on completed projects.

Price control units

The regulatory accounts have been prepared in accordance with RAG 2.07 'Guideline for classification of costs across the price controls'.

The tables presented in section 2 and 4 of the Annual Performance Report have been prepared in accordance with our Accounting Separation Methodology Statement which can be found at www.dwrcymru.com. The methodology statement explains the bases for allocation of operating and capital expenditure and has been updated for changes to the requirements in the year. Wherever possible, direct costs and assets have been directly attributed to price controls. Where this is not possible, appropriate cost allocations have been applied as described in the methodology. Material changes to the allocation approach compared to the previous year are documented in the methodology statement.

Notes to the regulatory accounts (continued)

Accounting policies (continued)

Trade receivables

Trade receivables are recognised initially at fair value and subsequently measured at amortised cost less provision for impairment. They are first assessed individually for impairment, or collectively where the receivables are not individually significant. Where there is no objective evidence of impairment for an individual receivable, it is included in a Group of receivables with similar credit risk characteristics and these are assessed collectively for impairment based on their ageing. Movements in the provision for impairment are recorded in the income statement.

Cash and cash equivalents

Cash and cash equivalents include highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of change in value. Such investments are normally those with less than three months' maturity from the date of acquisition and typically include cash in hand and deposits with banks or other financial institutions.

Notes to the regulatory accounts (continued)

Accounting policies (continued)

Pension costs

i) Defined benefit scheme

The company operates a defined benefit scheme, the DCWW Pension Scheme, which was closed to future accrual from 1 April 2017 for all members except for 18 ESPS section members. The scheme is funded by employer contributions as well as employee contributions from the remaining active members. Contribution rates are based on the advice of a professionally qualified actuary and actuarial valuations of the scheme are carried out at least every three years.

The liability recognised in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of the plans assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension obligation. In countries where there is no deep market in such bonds, the market rates on government bonds are used.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charges or credited to equity in other comprehensive income in the period in which they arise.

Past-service costs are recognised immediately in income.

ii) Defined contribution scheme

The company operates a defined contribution scheme, the DCWW Group Personal Pension Plan, which all employees are eligible to join. Obligations for contributions to the scheme are recognised as an expense in the income statement in the period in which they arise.

Notes to the regulatory accounts (continued)

Accounting policies (continued)

Financial liabilities

Debt is initially measured at fair value, which is the amount of the net proceeds after deduction of directly attributable issue costs, with subsequent measurement at amortised cost. Debt issue costs are recognised in the income statement over the expected term of such instruments at a constant rate on the carrying amount.

Trade payables are obligations to pay for goods and services acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year, or in the normal operating cycle of the business.

Derivative instruments utilised by the company are interest rate, inflation swaps and power hedges. Derivative instruments are used for hedging purposes to alter the risk profile of existing underlying exposures. Derivatives are recognised initially and subsequently re-measured at fair value. During the year to 31 March 2018, none of the company's derivatives qualified for hedge accounting under IAS 39 (2017: none). These instruments are carried at fair value with changes in fair value being recognised immediately in the income statement.

Deferred taxation

Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. However, the deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit nor loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.
Deferred income tax has been recognised in relation to rolled over gains except where reinvestment has been made in certain operational assets which the company plans to use until the end of their useful economic life. Company anticipates that these assets will then be scrapped for negligible proceeds, or proceeds less than their tax base, and therefore no chargeable gain is expected to arise in the future.

Notes to the regulatory accounts (continued)

Accounting policies (continued)

Deferred taxation (continued)

Deferred income tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Provisions

Provisions for restructuring costs, dilapidations, uninsured losses and losses on swap closure are recognised when the company has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and the amount has been estimated reliably. Restructuring provisions comprise employee severance and pension fund top-up costs. Where the company receives claims that are either not covered by insurance or where there is an element of the claim for which insurance cover is not available, a provision is made for the expected future liabilities. Provisions are not recognised for future operating losses.

Where there is a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligation may be small

Notes to the regulatory accounts (continued)

1. Differences between statutory and RAG definitions

As set out under 'basis of preparation' in the accounting policies section, the regulatory financial statements as set out in the preceding tables have been prepared under IFRS as modified by Ofwat's Regulatory Accounting Guidelines (RAGs). These notes provide the supplementary information specifically required by the RAGs. They do not cover the full range of disclosures required in a full annual report and accounts prepared under IFRS; these are included in the statutory financial statements of Dŵr Cymru Cyfyngedig which are available from the company's website.[1]

[1] www.dwrcymru.com or on request from the company Secretary, Dŵr Cymru Cyfyngedig, Pentwyn Road, Nelson, Treharris CF46 6LY.

Ofwat's aim is to minimise differences in reporting between statutory and regulatory accounts, unless it is absolutely necessary for regulatory purposes. RAG 1.08- Principles and guidelines for regulatory reporting under the 'new UK GAAP' (using IFRS, FRS101, or FRS102) regime defines treatment of particular items where Ofwat requirements differ from those normally required under IFRS and Companies Act legislation. Ofwat requires deviations from IFRS in the following areas:

- ***Revenue recognition***

  The RAG's require that companies bill all properties where a service is being received unless confirmed as void, and should fully recognise the billed amounts in the reported turnover. Properties will therefore only fall into one of the following two categories for regulatory accounting statement purposes

  - Billed and recorded in turnover; or
  - Void properties

  Companies should assume that for regulatory accounting purposes that where an amount is billed it is probable that cash will be collected. This is a deviation from requirement under IFRS where revenue is only recognised when it is probable that the economic benefits associated with the transaction will flow to the entity. RAG 1.08 requires a deviation from that requirement in that there is no judgement applied to the probability of collection and should all be considered collectable. Dŵr Cymru adheres to this accounting policy and therefore no adjustment is needed.

Notes to the regulatory accounts (continued)

1. *Differences between statutory and RAG definitions (continued)*

- ***Capitalisation of interest*** IAS 23.8 requires borrowing costs to be capitalised where they directly relate to the construction of an asset. The regulatory requirement is that this rule is disapplied.
- ***Reconciliation of statutory financial statements to regulatory accounting tables***

1A – Income statement for the year ended 31 March 2018

	£m	
Loss for the year per statutory accounts	**(39.488)**	
Capitalisation of interest	(16.400)	
Depreciation on capitalised interest	2.000	(Net of effect of grossing up IFRIC 18 deferred income release in income statement)
Deferred tax	2.448	
	(11.952)	Ofwat's RAG override to disapply capitalisation of borrowing costs under IAS 21
Non-appointed profit (net of tax)	(0.531)	Regulatory tables prepared in respect of the appointed business only
Loss for the year per regulatory accounts	**(51.971)**	

1D – Statement of cash flows for the year ended 31 March 2018

	£m	
Increase in net cash per statutory accounts	**206.777**	
Non-appointed profit for the year	**(0.**641**)**	Regulatory tables prepared in respect of the appointed business only
Increase in net cash per regulatory accounts	**206.136**	

Notes to the regulatory accounts (continued)

Differences between statutory and RAG definitions (continued)

1C – Statement of financial position as at 31 March 2018

	£m	
Net assets per statutory accounts	**1,313.442**	
Capitalisation of interest		
- Fixed assets	(55.380)	Ofwat's RAG override to disapply capitalisation of borrowing costs under IAS 21
- Intangible assets	(5.558)	Ofwat's RAG override to disapply capitalisation of borrowing costs under IAS 21
	(60.938)	
Trade and other payables:		
- Deferred income	239.082	RAG requirement to report separately on face of statement
- Accrued interest	(49.137)	RAG requirement to include accrued interest in trade and other payables
- Overdraft	(5.659)	RAG requirement to include accrued interest in trade and other payables
	184.286	
Borrowings		
- Accrued interest	49.137	RAG requirement to include accrued interest in trade and other payables
- Overdraft	5.659	RAG requirement to include accrued interest in trade and other payables
	54.796	
Deferred income – grants and contributions	(0.018)	RAG requirement to report separately on face of statement
Deferred income – adopted assets	(239.064)	RAG requirement to report separately on face of statement
Deferred tax	11.668	Ofwat's RAG override to disapply capitalisation of borrowing costs under IAS 21
Net assets allocated to non-appointed activities	(46.691)	Regulatory tables prepared in respect of the appointed business only
Net assets per regulatory accounts	**1,217.481**	

Notes to the regulatory accounts (continued)

2. Revenues by customer type

Table 2G, "Revenues by customer type for the year ended 31 March 2018 – non-household water", reports all >50Ml customers as being on non-default tariffs as the company has electively reduced the retail margin below the price determination default tariff. The table below reports the split of tariffs if those customers were treated as being on default tariffs and reports each tariff in the categories it was reported in previous years Annual Performance Reports.:

	Wholesale charges revenue	Retail revenue	Total revenue	Number of customers	Average non-household retail revenue per connection
	£m	£m	£m	000	£
Non-default tariffs					
Total non-default tariffs	-	-	-	-	-
Default tariffs					
Raw water < 50Ml (measured)	0.008	-	0.008	0.002	136
Partially-treated water < 50Ml (measured)	0.001	-	0.001	0.005	7
Potable water < 50Ml (non-household) Measured	57.700	3.779	61.479	92.786	41
Potable water < 50Ml (non-household) Unmeasured	2.079	0.303	2.382	8.073	37
Raw water > 50Ml (measured)	1.614	0.018	1.632	0.007	2,551
Partially-treated water > 50Ml	1.422	0.015	1.437	0.003	4,925
Water large user 50Ml-99Ml (measured)	4.760	0.052	4.812	0.051	1,018
Water large user 100Ml-249Ml (measured)	4.230	0.047	4.277	0.029	1,614
Water large user 250Ml-499Ml (measured)	3.118	0.030	3.148	0.011	2,772
Water large user 500Ml-1000Ml (measured)	3.849	0.042	3.891	0.007	5,942
Water large user > 1000Ml (measured)	0.407	0.004	0.411	0.002	2,097
Special agreement register – ref WSHNONPOT8	0.003	-	0.003	-	-
Special agreement register – ref WSHNONPOT9	1.757	0.020	1.777	0.001	20,239
Special agreement register – ref WSHPOT1	0.055	0.001	0.056	0.001	978
Special agreement register – ref WSHNONPOT10	2.902	-	2.902	0.001	-
Total default tariffs	**83.906**	**4.311**	**88.217**	**100.978**	**43**

Notes to the regulatory accounts (continued)

3. Transactions with associates

The directors of Dŵr Cymru Cyfyngedig are also directors of other companies within the Glas Cymru Holdings Cyfyngedig group; however, their emoluments are paid in full by the company as their activities are predominantly related to the regulated water and sewerage business. During the year the Directors' emoluments amounted to £2,184,565.

Company interest payable to Dŵr Cymru (Financing) Limited (DCF), another member of the Glas Cymru Holdings Cyfyngedig group, was £144.5m during the year (2017: £124.3m). As at 31 March 2018 the balance outstanding on the intercompany loan from DCF stood at £2,561.0m (2017: £2,279.3m). All borrowings raised by DCF are immediately on-lent to the company on an arms-length basis. The intercompany loan is subject to the terms and conditions of the whole business securitisation structure of Glas Cymru Holdings Cyfyngedig and its subsidiaries. DCWW, in its capacity as debtor, repays such principal and interest as is due on each borrowing on the due date plus 0.01%.

During the year, costs incurred by Cambrian Utilities Limited (£0.3m) and Welsh Water Infrastructure Limited (£0.1m) were paid by the company on their behalf. These transactions have been reported as intercompany loans payable.

During the year no dividends were paid or received (2017: £30.2m paid to Dŵr Cymru (Holdings) Limited).

There were no other transactions with companies that are part of the Glas Cymru group except as disclosed below.

Notes to the regulatory accounts (continued)

3. Transactions with associates (continued)

RAG 3.10 requires the company to disclose transactions with both associated companies and the non-appointed business in accordance with the guidance provided in RAG 5.07.

Service	Company	Turnover of associate £m	Terms of supply	Value £m
Services provided by the regulated business to associated businesses				
Staff secondments	Welsh Water Organic Energy Ltd	3.792	Fully absorbed cost	0.036
	Welsh Water Organic Energy (Cardiff) Ltd	3.208	Fully absorbed cost	0.018
	Welsh Water Infrastructure Ltd	-	Fully absorbed cost	0.312
	Cambrian Limited	-	Fully absorbed cost	0.045
Loan finance	Welsh Water Organic Energy Ltd	3.792	Loan from WW Infrastructure	-
	Welsh Water Organic Energy (Cardiff) Ltd	3.208	Loan from WW Infrastructure	-
	Welsh Water Infrastructure Ltd	-	Intercompany loan from regulated business	0.070
	Cambrian Limited	-	Intercompany loan from regulated business	0.300
Corporation tax group relief surrendered by regulated business	No corporation tax group relief surrendered during the period (see Note 7 – Taxation).			
Services provided by the associated businesses to the regulated business				
Supply of power from AD plant to Cardiff Treatment works	Welsh Water Organic Energy (Cardiff) Ltd	3.208	Arm's length contract in 2014 with third party	0.359

Notes to the regulatory accounts (continued)

4. Statement of changes in equity (company level)

	Ref	Share capital £m	Capital redemption reserve £m	Revaluation reserve £m	Retained earnings £m	Total equity £m
At 1 April 2017		309.9	166.2	644.1	92.1	1,212.3
Loss for the year	1A	-	-	-	(39.4)	(39.4)
Revaluation net of tax	1B	-	-	131.2	-	131.2
Actuarial gain net of tax	1B	-	-	-	9.4	9.4
Transfer to retained earnings		-	-	(57.5)	57.5	-
	1C	**309.9**	**166.2**	**717.8**	**119.6**	**1,313.5**

5. Financial derivatives (Table 4I)

- **Interest rate swaps (sterling – floating to/from fixed rate)** ***(Table 4I – 4I.1)***

  This is a single floating to fixed derivative which swaps £192m of debt from 3 month LIBOR plus a margin to 5.67% fixed. Both the swap and the debt were originally agreed between Dŵr Cymru (Financing) Limited ("DCFL") (the sister company and financing arm of Dŵr Cymru Cyfyngedig ("DCWW")) and the swap/loan counterparties. The funds were on-lent to DCWW and DCWW is ultimately responsible for ensuring payments of interest and principal are met.

Notes to the regulatory accounts (continued)

5. *Financial derivatives (Table 4I) (continued)*

- **Interest rate swaps (sterling – floating to/from index-linked) *(Table 4I – 4I.3)***

  All the swaps included in this line are held in DCWW and are floating to RPI swaps under which DCWW receives floating rate LIBOR and pays a fixed amount plus the movement in RPI. The swaps are "year on year" swaps with all payments and receipts (including RPI) settled in the year. Interest rates are a weighted average of a fixed amount of 1.59% plus RPI of 3.88% and LIBOR of 0.66%.

  As at 31 March 2018, £531m of swap nominals are held in DCWW. These swaps were taken out to hedge floating rate leasing liabilities and follow the amortising profile of the finance leases. The "year on year" index-linked swaps convert the floating rate leases to index-linked liabilities. The accounting value of the leases is £381m. The nominal value of swaps allocated to the finance leases is £399m, representing the average balance of the finance leases subject to floating rate interest in the year. The swaps are amortising. Some leases have been terminated and, in consequence, swaps with a nominal value of £132m have been reallocated to floating rate European Investment Bank ("EIB") and KFW IPEX- Bank liabilities.

  When calculating the nominal value by maturity, maturity has been calculated with reference to the weighted average maturity of each amortising swap. Overall, maturities of these amortising swaps range from 1 to 32 years with a weighted average of 10.7 years.

- **Swaps held in other group entities**

  DCFL, the financing sister company of DCWW has entered into two interest rate swaps:

  - A £192m (nominal) floating to fixed interest swap – this swap was taken out in 2001 to hedge floating rate bond liabilities that were on-lent to DCWW. The bond liabilities have been repaid, but the swap has been retained to hedge floating rate EIB debt raised by DCFL and on-lent to DCWW by way of inter-company loan with a margin of 0.01%. The swap is shown on line 1 of Table 4I. The swap matures in March 2031; and

Notes to the regulatory accounts (continued)

5. *Financial derivatives (Table 4I) (continued)*

- A fixed to RPI swap which is a synthetic "RPI bond" style swap where the indexation is accreted and paid on the maturity of the swap (which will occur simultaneously with the maturity of the related bond). This swap and the fixed rate bond liabilities have been on-lent to DCWW as a single index-linked loan instrument at a rate of 1.35% plus a margin of 0.01% sufficient to repay both the fixed interest rate on the bond and year on year RPI swap liabilities. The swap and associated liabilities mature in March 2057.

The table below reports the RPI swap in the same format as Table 4I:

	Nominal value by maturity (net)	Total value			Interest rate (weighted average)	
	Over five years	Nominal value (net)	Mark to market	Total accretion	Payable	Receivable
Derivative type	**£m**	**£m**	**£m**	**£m**	**%**	**%**
Interest rate swap (sterling)						
Fixed to index-linked	100.000	100.000	130.703	39.949	1.38	4.59
Total	**100.000**	**100.000**	**130.703**	**39.949**		

- **Credit breaks**

  None of the swaps in DCWW or DCFL has credit breaks, with the longest-dated swap being in place until 2057. This is because the swaps were entered into before the financial crisis when banks were more prepared to take a long term view of a water company's credit. However, post the financial crisis, banks now insist on credit breaks at 5 to 10 year intervals regardless of counterparty ratings.

Notes to the regulatory accounts (continued)

5. *Financial derivatives (Table 4I) (continued)*

- **Policy for determining composition of debt**

  DCWW's policy for raising debt is to reduce refinancing risk by borrowing across a range of maturities and from a mix of sources, currently comprising bi-lateral revolving credit bank facilities, EIB & KfW term loans, bonds and finance leases, with a mix of maturities to comply with the company's refinancing policy. The refinancing policy is governed by the company's bond covenants and states that no more than 20% of the group's debt is permitted to fall due within any rolling 24 month period.

- **Hedging policy**

  The company's policy is to hedge at least 85% of its total outstanding financial liabilities into either RPI or fixed-rate obligations. To comply with this policy and in order to keep debt costs as low as possible we will raise debt at the lowest interest rate commensurate with the maturity of the debt. There is no specific optimum mix of RPI and fixed rate debt. As at 31 March 2018 approximately 65% of debt was index-linked and 35% was fixed.

Notes to the regulatory accounts (continued)

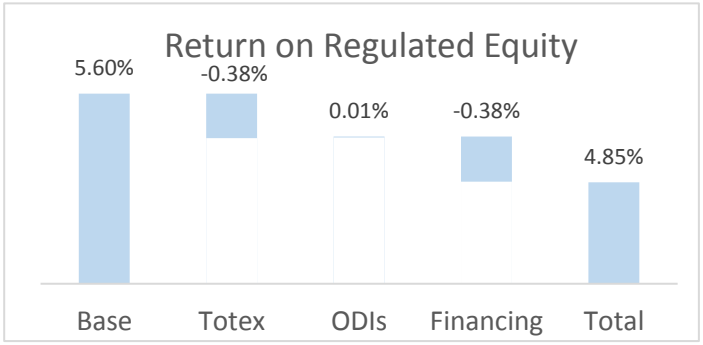
6. Return on regulated equity

Dŵr Cymru has a base return on regulated equity (RORE) of 5.6% for AMP6, set at the 2014 price review.

The company delivered an actual RORE of 4.85% for the cumulative three-year period ended 31 March 2018.

The company's share of totex overspend adjusted for timing differences delivered a negative return of 0.38% An outcome delivery incentive reward, payable at the end of the AMP, delivered 0.01%. The difference between the actual and allowed average real interest rates on debt reduced the overall return by 0.38%.

	%
Base	5.60%
Total expenditure (totex)	(0.38%)
Outcome delivery incentives (ODIs)	0.01%
Financing	(0.38%)
Total	**4.85%**



RORE calculations are based on a notionally structured, efficient company, and average RCVs. Tax has been assumed at the headline rate of 20%, in line with regulatory accounting guidance. RORE has been calculated cumulatively for the AMP as an average of the annual figures and recognises gains and losses made from the start of the AMP to 31 March 2018.

Totex performance

The overall totex outperformance excludes the effects of allowed expenditure delayed until later in the AMP. The company share of outperformance is £10m up to 2016/17 and is offset by a £37m share of underperformance in 2017/18.

Notes to the regulatory accounts (continued)

6. Return on regulated equity (continued)

Table 4B and 2C provides detailed analysis of the Wholesale and Retail totex performance.

ODI performance

Dŵr Cymru has 12 performance commitments (including the Service Incentive Mechanism) which have potential penalties or rewards attached to them. Rewards and penalties are included in the RORE calculations when they are recognised rather than when collected. An ODI gain of £0.408m was accrued in 2017/18 on a cumulative basis and contributes 0.01% to RORE performance.

Financing performance

Actual interest paid divided by actual net debt gives an average nominal interest rate of 5.3%. Adjusting for the effects of inflation results in an average real interest rate of 2.9% which is 0.29% higher than the interest rate allowed for by Ofwat in PR14.

Impact of Customer Distribution Spend

Since the beginning of the AMP, £79m of additional customer value money has been spent, equivalent to 0.54% impact on RORE. This is included in the totex figures above as over spend.
Excluding customer value spend, the Totex outperformance increases to 0.17%, and overall RORE is 5.40%.

7. Taxation

Current tax	£m	Deferred tax	£m
Current period	(0.380)	Current periods	(8.741)
Corporation tax on R&D tax credit including in operating costs	0.287	Prior periods	0.720
Prior periods	(0.915)	Effect of rate change	-
		Total deferred tax credit	**(8.021)**
Total current tax credit	**(1.008)**	**Total tax credit**	**(9.029)**

The current tax credit of £0.4m has arisen from the surrender of tax losses relating to energy efficient capital expenditure. Operating expenditure includes a tax credit of £1.4m relating to R&D expenditure. The R&D tax credit is taxable and the corresponding tax charge of £0.3m is shown above.
Tax trading losses carried forward as at 31 March 2018 are £nil and have decreased by £189m from 31 March 2017 as a result of disclaiming capital allowances in the current and prior periods.

Adjustments in respect of prior years' relate to revisions to deferred tax balances in respect of capital expenditure, and adjustments to current tax credits for energy efficient capital expenditure, the remediation of contaminated land and R&D expenditure.

Group relief
The group's policy is to pay for the 'tax value' (i.e. tax loss x rate of corporation tax) of tax losses surrendered. The company has not surrendered or received any tax losses from fellow group companies during the period.

Factors effecting future tax charges
The company does not anticipate paying corporation tax during the remainder of AMP 6 due to the availability of capital allowances to shelter future trading profits. This is consistent with the company's final determination (FD). We are not aware of any factors affecting future tax charges. The proposed reduction in corporation tax rate from 19% to 17%, effective from 1 April 2020 has already been factored into the calculation of the company's deferred taxes.

Current tax reconciliation	£m
Loss before tax and fair value movements on derivatives	(113.265)
Multiplied by standard rate 19%	(21.520)
Expenses not deductible for tax purposes	0.094
Non-taxable IFRIC 18 income	(0.988)
Other timing differences – general provisions	(0.357)
Capital allowances in excess of depreciation	22.678
Prior year tax credit	(0.915)
Total current tax credit	**(1.008)**

7. Taxation (continued)

The effective tax rate for the year is higher than the standard rate of corporation tax in the UK of 19%. The differences are explained below:

Effective tax rate	**£m**
Corporation tax credit relating to current period	(0.093)
Loss before tax and fair value movements on derivatives	(113.265)
Effective corporation tax rate (current year)	**0.08%**

Reconciliation of current tax for the year to the allowance for current tax included in the Final Determination

	£m	**Commentary**
Final determination current tax allowance	**-**	
Key differences are as follows:		
Movement in profit before tax pre fair value gains/losses	(24.761)	Difference in profits from FD
Disallowable expenditure	0.053	Disallowable expenditure marginally higher
Non-taxable income(IFRIC 18)	(0.988)	IFRIC 18 income higher than forecast in FD
General provisions and pensions	(0.171)	Increased pension contributions from FD
Depreciation in excess of capital allowances	31.112	Depreciation has increased from FD due to revaluing fixed assets and capital allowances disclaimed to eliminate tax losses c/f
Decrease in tax losses carried forward (c/f)	(4.958)	Capital allowances disclaimed to eliminate tax losses c/f
Adjustment in regard to prior years	(0.915)	See analysis of current tax charge above
Surrender of tax losses re energy efficient expenditure	(0.380)	Surrender of tax losses relating to energy efficient capital expenditure. A tax credit was not included in the FD as it was uncertain whether expenditure would qualify
Current tax credit	**(1.008)**	

Notes to the regulatory accounts (continued)

7. Taxation (continued)

Deferred tax	£m
At 1 April	**395.076**
Credit to income statement	(8.021)
Charge to Revaluation reserve	26.214
Charge to SOCI – re pensions	2.770
At 31 March	**416.039**

Analysis of amounts (credited)/charged to the Statement of Comprehensive Income and Revaluation Reserve:	
Defined benefit pension schemes	2.070
Reallocation of tax from income statement – pension payment in excess of service charge	0.700
Charge to SOCI – re pensions	**2.770**
Revaluation of fixed assets	26.214
Charge to revaluation reserve	**26.214**

Effect of	**£m**
Tax allowances in excess of depreciation	239.775
Deferred tax on revaluation of fixed assets	233.427
Capital gains rolled over	2.703
	475.905
Deferred tax on losses of derivatives	(45.248)
Pensions	(12.934)
Other tax differences	(1.684)
	416.039

7. Taxation (continued)

Tax charges for Statement 1A – Income Statement for the year ended 31 March 2018

	Statutory Accounts £m	RAG differences £m	Non appointed income £m	Reg accounts total £m
Loss before tax	(45.960)	(14.400)	0.640	(61.000)
Current tax				
Current period	0.380	-	-	0.380
Corporation tax on R&D tax credit included in operating costs	(0.287)	-	-	(0.287)
Prior periods	0.915	-	-	0.915
Total current tax	**1.008**	**-**	**-**	**1.008**
Deferred tax				
Current period	6.184	2.448	0.109	8.741
Prior periods	(0.720)			(0.720)
Effect of rate change	-	-	-	-
Total deferred tax	**5.464**	**2.448**	**0.109**	**8.021**
Total tax charge	**6.472**	**2.448**	**0.109**	**9.029**

Notes to the regulatory accounts (continued)

Our group tax strategy

Our approach to risk management and governance arrangements

Our Finance and Commercial Director has overall responsibility for tax governance and strategy with oversight from the Board and the Audit Committee.

Our tax strategy is supported by a detailed internal Group Tax Policy, together with a framework of internal systems and controls which govern the commercial operations of Glas Cymru Holdings and its subsidiaries (the Group). Our Head of Tax is responsible for the day-to-day application of the tax strategy and the management of the Group's tax affairs. Our Head of Tax works closely with the Finance and Commercial Director. All material tax issues, risks and developments are regularly communicated to the Audit Committee.

Our tax team comprises a small group of professionals with extensive experience of tax in the water sector. This expertise is supplemented by the use of reputable external advisers where required.

Our approach to tax planning and tax risk

All of our group companies are UK tax resident and subject to UK corporation tax on their profits.

Our focus is on compliance; ensuring that all taxes are correctly calculated, accurately reported and paid when due.

We do not engage in artificial arrangements with no commercial purpose, or transactions which are directed at exploiting tax legislation in order to reduce the tax we pay. We comply with the spirit of the law as well as the letter of the law.

Tax risks are held within the Group's risk register and are updated regularly.

Our key tax risks principally arise from business developments and changes to tax legislation which may result in unforeseen tax implications. Where possible we seek to mitigate tax risk so that residual risk is minimal.

Our group tax strategy (continued)

Our tax team is involved in all significant business developments enabling a full assessment of the tax implications to be made. We seek input from reputable external advisers where the tax implications are still unclear. In cases where residual uncertainty remains we liaise with HMRC to gain clarity.

Our tax team participates in a number of water industry tax forums. The team receives regular technical updates from our professional advisers and from our periodic meetings with HMRC. This ensures that the team is kept informed of all relevant developments in tax law, enabling them to develop appropriate systems and controls to address legislative changes.

We actively contribute to the UK tax policy making process by participating in Government consultations.

Our relationship with HMRC

We are committed to an open, transparent relationship with HMRC. Our policy is to fully disclose any issues or errors as they arise, and seek to resolve them as soon as practicable.

We meet HMRC biannually to formally discuss our business plans and developments, together with relevant changes to tax legislation.

The Group has been classified as low risk by HMRC from the inception of the Business Risk Review process in 2009. This is due for review in March 2019.

Tax reliefs and incentives

Our Group has no shareholders and is run solely for the benefit of our customers. We therefore seek to utilise available tax reliefs and incentives put in place by the Government in order to maximise funds available to benefit our customers.

The Group invests heavily in capital expenditure, for example treatment works and our network of pipes and pumping stations, to continually improve the service we provide to our customers. We are therefore able to take advantage of tax reliefs which aim to stimulate this type of investment. A significant proportion of this capital expenditure can be deducted in calculating the Group's taxable profit. We are also able to

Our group tax strategy (continued)

deduct interest costs incurred to fund this capital investment. This effectively delays corporation tax payments to future periods. Our customers therefore also benefit from cheaper bills.

The Government's Research & Development (R&D) Expenditure Credit regime incentivises companies to increase their investment in R&D. The Group invests heavily in R&D and claims tax credits under this regime.

Transparency

We understand the value of insightful financial reporting to our customers, investors and other stakeholders. Taxation is an area which can be difficult to understand. We therefore seek to provide enhanced disclosures in order to give a clear and balanced view of our tax affairs.

Contribution

The Group is subject to a range of taxes and duties, including corporation tax, business rates, environmental taxes, employment taxes, National Insurance, VAT, fuel duty and licences. The Group thus makes a significant contribution to public finances, as well as employing over 3,000 people and playing an important role in the regional economy.

Notes to the regulatory accounts (continued)

Long-term viability statement

The Board considers that the long-term viability statement made in the 2018 Annual Report and Accounts of the Glas Cymru Holdings Cyfyngedig group applies equally to the operational company, Dŵr Cymru Cyfyngedig, and it has therefore been repeated in full below.

Our vision is to earn the trust of our customers every day. Our customers need to know they can rely on the services we provide over the long term. Ensuring the long-term resilience of our business, including financial resilience, is therefore a key area of focus for us. As we do not have shareholders (who could provide equity in the case of financial distress), maintaining ready access to low-cost debt is a key part of our not-for-shareholder ownership model. The benefits of this low cost finance are then passed on to customers in the form of lower bills. When the ownership structure under Glas Cymru was established in 2001, a focal element of this financial resilience strategy was to reduce our gearing. Gearing is currently slightly below the Board's target of 60% and this reduction in gearing has created a strong buffer of financial reserves (now standing at £2.4bn).

Although not a listed company, we adhere to the UK Corporate Governance Code as far as possible for a company limited by guarantee.

Our approach to considering viability and risk

The Board's consideration of the Group's long-term viability is embedded in our business planning process; this includes robust risk management controls, financial forecasting and sensitivity analysis, as well as regular budget reviews. This process is underpinned by a culture of support and challenge that flows from our leadership team to all aspects of our operations. This year we have reconsidered the appropriate period over which viability should be reported: we consider that a period of up to twelve years is the most suitable period over which the Board should assess the prospects of the Group. It is within the period covered by our annual business planning process and covers the next two regulatory review periods, to 2030. We have clarity of our current regulatory price controls to 2020, are developing detailed plans for the

[1] A copy of the 2018 Annual Report of the Glas Cymru group is available on our website, www.dwrcymru.com or by request from the company Secretary, Dŵr Cymru Cyfyngedig, Pentwyn Road, Nelson, Treharris CF 46 6LY

Notes to the regulatory accounts (continued)

Viability statement (continued)

next regulatory period (AMP7) to 2025, and we are also developing outline plans for the following period (AMP8) to 2030 in the context of our strategic planning document "Welsh Water 2050".

The principal risks facing the Group are set out on pages 44 to 46 (2018 Annual Report) in relation to our ability to deliver our strategic objectives. Risks are identified and assessed through a continuous cycle of bottom-up reporting and review and top-down feedback and horizon scanning. We accept that embracing and managing risk is a necessary part of doing business, and our risk management process aims to capture a spectrum of risk from inherent to emerging, and across all business areas.

The Board has analysed the efficacy and robustness of its control framework in managing the likely causes and consequences of each risk, and has reviewed the Group's assumptions and contingency plans. The Board has discussed the potential financial and reputational impact of these principal risks against the Group's ability to deliver its 2018 business plan, which is being prepared for submission to Ofwat in respect of the PR19 price control and which principally covers the period April 2018 to the end of the next regulatory review period (AMP7) in March 2025, with financial forecasts stretching to 2035. Although we have developed plans for AMP9 (to 2035) we consider that the degree of uncertainty looking beyond two cumulative regulatory reviews makes such plans unsuitable for our viability and risk review. We have therefore used our plans and forecasts to 2030 for this review.

We have stress-tested our business plan forecasts to 2030 against a variety of financial scenarios which include the estimated impact of each of the principal risks and uncertainties occurring, both individually and together based on the Board's assessment of their likelihood and severity. We have also combined the forecast impact of these with high and low inflation scenarios over the period (5% and 0% respectively). In addition we have used "blanket" cost stresses of a 10% revenue reduction in every year and a 10% total expenditure (totex) overspend each year.

These scenarios have been picked as they provide a severe, plausible and reasonable test of overall flex in the financial plan, based on the principal risks to which the Board has identified that the Group is exposed. While it is highly unlikely that all of the identified scenarios will occur simultaneously, or even that they

Notes to the regulatory accounts (continued)

Viability statement (continued)

would all occur once during the period, we have modelled the impact of this to understand the level of resilience implicit in the forecasts. In assessing the financial impact of each scenario, management has taken into account both its own experience and other, publicly available, data.

The estimated impact of each scenario being overlaid on the Group's financial plan does not present any material threat to the Group's viability. High and low inflation scenarios also have a relatively small impact on the Group's viability, as both revenues and a significant proportion of net debt are inflation-linked. Even under a "crisis scenario", in which all principal risks and uncertainties occur in a low-inflation environment, the Directors do not expect to breach the gearing level trigger of 85% covenanted with our debt providers. While this is not considered a realistic scenario for the purpose of forecasting, it gives an indication of the overall level of financial resilience beyond the next regulatory review period.

In the case of all identified reasonably foreseeable scenarios arising, various options would be available to the Group in order to maintain liquidity so as to continue in operation. All funding is already in place to deliver the business plan to March 2020, including allowance for flex to the most extreme combination of adverse scenarios over this period. We are looking into additional funding sources for AMP7 and beyond and, given the success of our last bond issue (in January 2018), do not currently anticipate experiencing significant difficulties. The Group operates in a stable sector with predictable cash flows and a supportive regulator; levels of investor confidence have historically been high and likely changes to the regulatory environment and the Group's own principal risks are unlikely to have a material impact on the company's credit rating during the period under review. The Directors are therefore confident that, in all the identified scenarios, the Group should retain access to relevant markets for refinancing requirements.

The Board has assessed the potential impacts of these risks within the context of its risk appetite and is confident that the controls in place are sufficient to keep the Group's financial performance within appropriate tolerance levels. In making their assessment, the Directors have taken account of the Group's robust forecast and actual gearing of around 60%, its strong level of liquidity and its ability to raise finance. It is also important to recognise that Ofwat, the company's economic regulator, has a statutory duty to

Notes to the regulatory accounts (continued)

Viability statement (continued)

secure that efficient water companies can finance the proper carrying out of their functions correctly – although this has no direct bearing on our business planning activities.

Commercial Projects

The Group's activities outside of the regulated monopoly business are restricted by our Common Terms Agreement with our debt providers to the UK utilities sector with a maximum investment of £100m (in 2016 prices). Such activities are therefore peripheral to the core business and have no material impact on the Group's overall viability or financial resilience, although they aim to generate additional funds that can be applied for the benefit of our customers, or to reduce costs in the operational business.

Assurance Processes

Our internal business planning workstreams separate the preparation of operational cash flow forecasts from the modelling of financing costs, which facilitates a robust two-way cross check on the robustness of the forecasts prior to review by the executive team, Audit Committee and Board. The financial model underpinning the forecasts has been subject to external agreed upon procedures designed to provide assurance over its integrity, with no exceptions identified, and we have also obtained external assurance on the key assumptions and forecast credit metrics in our draft plans for the period 2020 to 2025. This Viability Statement itself comprises part of the Annual Report and Accounts on which our external auditors provide an independent audit opinion.

Conclusion

As a result of this assessment, the Directors have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period to March 2030.

The directors of Dŵr Cymru Cyfyngedig are also directors of the other companies within the Glas Cymru Holdings Cyfyngedig group; however, their emoluments are paid in full by the company's their activities are predominantly related to the regulated water and wastewater business. The report below has been extracted from the 2018 Annual report and Account of Glas Cymru Holdings Cyfyngedig

REPORT FROM THE CHAIR OF THE REMUNERATION COMMITTEE

The Role of the Committee

The role of the Remuneration Committee is to recommend to the Board for approval, and keep under review, the Remuneration Policy of the Board as it applies across the business as a whole. More specifically the role of the Remuneration Committee is:

- to agree the Policy and framework and service contracts for the remuneration of the Chairman and the Executive Directors, and the remuneration framework for the Executive team in the context of remuneration policy across the Group; and

- to determine variable pay arrangements that encourage and recognise good performance and reward individuals in a fair and competitive manner for their contribution to the long-term success of the Group, and to develop the policies to support these principles.

In carrying out its role, the Committee applies certain key principles (set out below) which it agreed in 2015-16 and have been discussed with Glas Members.

REPORT FROM THE CHAIR OF THE REMUNERATION COMMITTEE (continued)

During 2017-18, the main activities of the Remuneration Committee have included:

- consideration of remuneration trends and best practice;
- setting “stretch” performance targets for Executive Directors and monitoring progress against these;
- reviewing the target remuneration for the broader Executive team;
- reviewing the salaries of the Executive Directors and the Chairman’s fee, and considering recommendations for the proposed annual increase;
- assessing performance achieved against the conditions attached to the 2017-18 Annual Variable Pay Scheme (AVPS) and AMP6 Long Term Variable Pay Scheme (LTVPS) and agreeing awards to be made to participants;
- approving the 2017 Remuneration Report;
- reviewing the work carried out by KPMG on gender pay gap reporting to enable reporting in March 2018 following approval by the Board of a plan to work towards further reducing the identified gap;
- considering the key elements of the Remuneration Policies which will apply to the business during 2020-25 and the external factors that will be relevant, as the Board begins to consider the framework for pay and rewards across the Glas Group for the next five year price control period.

REPORT FROM THE CHAIR OF THE REMUNERATION COMMITTEE (continued)

The Role of Glas Members

Glas Members play a key role in ensuring good governance in relation to the development and approval of remuneration policies.

Members approved the current remuneration policy at the 2015 Annual General Meeting (AGM) and the policy will be subject to Member approval again at the forthcoming 2018 AGM, when Glas Members will be asked to re-approve the policy for a further period to April 2020.
From that date, a revised policy will be necessary which picks up the key performance issues for AMP7. This is also in accordance with the remuneration reporting regulations applying to UK quoted companies. Members approve the Remuneration Policy of the Board by binding vote, at least every three years (or where any significant change is proposed).

The Annual Report on Remuneration will also be subject to an advisory vote by Members at the forthcoming 2018 AGM, as usual. At last year's AGM, 100% of Glas Members voted in favour of the Annual Report on Remuneration.

At this year's AGM, the Committee will also update the Members on the initial work undertaken to date to prepare the policy which would apply to the period 2020-2025 and plans to involve Members in the development of the Remuneration Policy for the next AMP period.

The revised Remuneration Policy will be presented to Members for approval at the 2019 AGM. Remuneration targets will be linked to the performance measures the company will be targeting in the period 2020- 2025, and will be consistent with the Group's longer term aims as set out in the Welsh Water 2050 strategy. The proposed revised remuneration policy would take effect from April 2020 when the new price control period begins.

REPORT FROM THE CHAIR OF THE REMUNERATION COMMITTEE (continued)

Glas Group Remuneration Principles

Agreed with Glas Members at the 2015 Annual General Meeting:

- Remuneration should reward/incentivise the long term interests of the business and reflect its agreed future strategic approach
- Remuneration should help align the interests of directors and employees with the business' customers
- Remuneration should be focused on the issues of key concern to the business — water and environmental quality, customer service and financial performance
- Remuneration should reflect Welsh Water's aim to be one of the best performing companies in the sector
- Remuneration targets should be stretching both in relation to past performance and in comparison with other companies in the sector. Where possible, they should be hard numbers which can be audited. While some are annual, they should also align with the business' strategic and regulatory objectives
- Remuneration is intended to incentivise management in the absence of shareholders and share options
- Remuneration should be fair and competitive both in relation to the sector and internally so as to help attract and retain high calibre individuals
- A significant proportion of remuneration for the Executive directors should be variable (a 60/40 split fixed/variable is the current stated goal) so as to achieve the right balance in relation to risk taking
- The remuneration structure should be sufficiently clear so that those affected by it understand what it is aiming to achieve
- Remuneration will be transparent to Glas Members and subject to their regular approval.

REPORT FROM THE CHAIR OF THE REMUNERATION COMMITTEE (continued)

External Changes and Developments Relevant to Remuneration Policies

The last year has seen a continuation of the structure established for remuneration in the current AMP period (2015-2020) and a focus by the Committee on the external changes and challenges that will impact on the business over the next five year period. This includes consideration of the appropriate benchmarks against which to consider pay and reward, with reference to:

- The need to be able to plan for the longer term, and to attract and retain appropriate skills and talent, particularly given the significant future challenges identified in the Group's Welsh Water 2050 strategy document;
- Corporate governance developments including preparation for AMP7 and Ofwat's focus on transparency, and performance related pay that is clearly linked to the underlying performance of the company;
- The Group's structure and its non-shareholder owned status.

Having spent time considering the structure and content of the Group's remuneration policies against this variety of benchmarks, the Committee has also worked with its newly appointed consultants, Mercer, to consider the key elements proposed for the remuneration policies which will apply for the next five year funding period 2020-25. Pay must incentivise strong performance by Executive Directors, while not encouraging excessive risk taking. In considering the approach to structuring remuneration and the link to performance, the Committee has had in mind the content of the documented Welsh Water 2050 strategy, which focuses on addressing longer term risks and issues and building greater resilience.

During the year, a restructure of the Executive team has seen the appointment of Peter Perry as Managing Director of the regulated business (previously Chief Operating Officer), Samantha James as Managing Director for Household Customer Services, and Ian Wyatt as Director for Business Customer Services. There was also some restructuring of responsibilities among the executive team. This restructuring of the senior management teams has involved the Committee in considering the application of the current Group's Remuneration policies to the newly formed Executive team.

REPORT FROM THE CHAIR OF THE REMUNERATION COMMITTEE (continued)

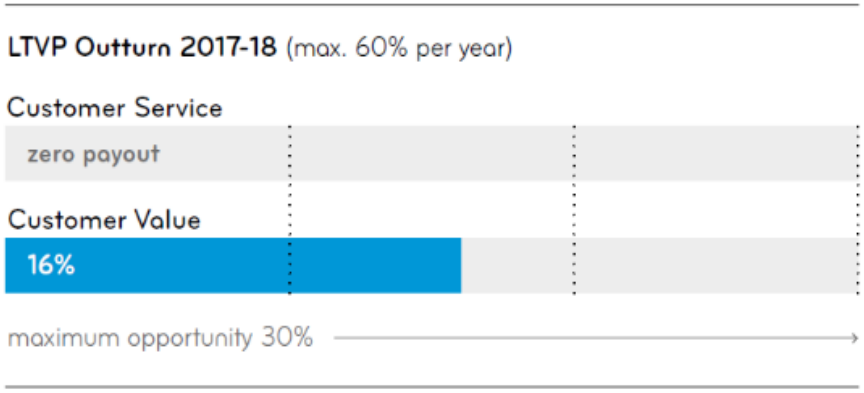
Performance and Reward for 2017-18

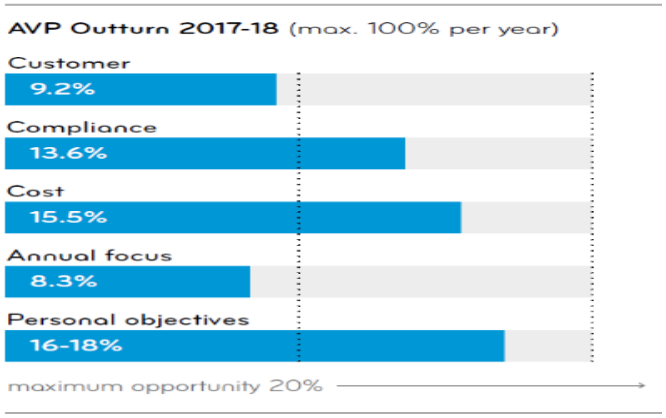
Remuneration payable to the Executive Directors in respect of the financial year ended 31 March 2018 was as follows:

- a base salary (which had been increased by 1.6% in April 2017) plus pension (or equivalent payments) and private health and permanent health benefits;

- under the AVPS 2017-2018 awards have been made equivalent to 22.8% of base salary for performance against the Customer and Compliance element of the scheme, 15.5% for Total Expenditure (Totex) Cost Performance and between 24.3% and 26.3% against Strategic (Annual Focus) and Personal Objectives, making a total award of between 62.6% and 64.6% of base salary for each Executive Director; and

- under the LTVPS, payment has been made for performance relating to the Customer Value element of the scheme: no amount is payable in respect of the Customer Value element of the scheme, which depends on the outcome of Ofwat's SIM performance measure.





REPORT FROM THE CHAIR OF THE REMUNERATION COMMITTEE (continued)

Performance and Reward for 2017-18 (continued)

Customer Service: The final outturn for Welsh Water's Service Incentive Mechanism (SIM Customer Service) performance in 2017-18 will not be known until later in the summer. However, we estimate that Welsh Water will be ranked joint 6th out of the ten water and sewerage companies which will mean there is no award payable this year for the Customer Service element of the award, calculated on a rolling three year average SIM basis. The award would be adjusted if the results required this. It should be noted that relatively small differences in SIM outcomes have led to substantial reward variations in the recent past.

Customer Value: a payment of 16% of salary (53.3% of the maximum for this element of the LTVPS) has been awarded under the scheme for the Customer Value element given

REPORT FROM THE CHAIR OF THE REMUNERATION COMMITTEE (continued)

Implementation of the Remuneration Policy in 2018-19

The agreed Remuneration Principles emphasise that remuneration for the Executive Directors and the wider Executive team should align with the interests of the Group, and in particular with the interests of customers. This will continue to govern our approach in 2018-19.
The key points in relation to the implementation of the Remuneration Policy in 2018-19 are:

- Salaries were increased by 3% with effect from 1 April 2018 in line with the pay award received by other employees. The 3% award was agreed in the light of comparative benchmarking and continuing good performance;

- under the AVPS the maximum that can be earned in 2018-19 remains 100% of salary. The Scheme will continue to focus on customer, compliance, cost and personal objectives, as well as a number of other critical measures of short to medium-term success; and

- The LTVPS provides that the overall maximum that can be earned in the AMP6 five year regulatory period is 300% of base salary (i.e. 60% per annum). Half of the LTVPS is subject to Customer Service measures and half to Customer Value measures.

The Directors' Remuneration Report includes:

- A Remuneration Policy Report (pages 72-74). The Committee remains satisfied that the Remuneration Policy remains broadly appropriate and fit for purpose and intends to seek a further approval from Members at the 2018 AGM to extend the current policy to the end of the current AMP period — March 2020. Members will be asked to approve a new Group Remuneration Policy at the 2019 AGM which will take effect from April 2020 when the next price control period starts.

- An Annual Report on Remuneration (pages 75-82) which describes how the Remuneration Policy was implemented for 2017-18 and how we intend to apply it for 2018-19. This will be put to an advisory Member vote at the 2018 AGM.

REPORT FROM THE CHAIR OF THE REMUNERATION COMMITTEE (continued)

Implementation of the Remuneration Policy in 2018-19 (continued)

The Committee is grateful to New Bridge Street (Aon Hewitt) for the professional advice provided until July 2017 and to Mercer, who succeeded New Bridge Street as Remuneration Consultants to the Remuneration Committee with effect from August 2017.

In approving this Annual Remuneration Report, the Committee has taken into account the requirements of Ofwat's guidance on transparency in its Regulatory Accounting Guidance 3.09, including the requirement to include a note which describes the link between directors' pay and standards of performance as required by section 35A of the Water Industry Act 1991 (inserted into that Act by section 50 of the Water Act 2003) — as to which please see pages 76-79.

REMUNERATION POLICY REPORT

Key parts of the Policy Report which was approved by Glas Members at the 2015 Annual General Meeting have been included again in this report for the purposes of clarity and transparency. The original Policy Report can be found on pages 76 to 78 in the 2015 Report and Accounts on the company's website dwrcymru.com/reports.

Remuneration Policy

The principles and framework of the current Remuneration Policy were approved by Glas Members at the AGM on 3 July 2015 and were effective from that date.
The Policy aligns executive remuneration with the implementation of Welsh Water's strategy to deliver the best possible outcomes for our customers and to protect the environment. Under the policy, remuneration is linked to performance both annually and over the five year regulatory period that commenced in April 2015.
The Policy is implemented to ensure that:

- Levels of base salary and total remuneration (when assessed periodically against the market) are considered to be fair and competitive having regard to an individual's experience and responsibility;

- Performance improvement is encouraged by ensuring that a significant proportion of the total remuneration opportunity is linked to performance, while balancing this with base salary to ensure that excessive risk-taking is not incentivised;

- Incentives are focused on the outcomes which are considered important for customers and calibrated against the prior year's performance and against the performance of other companies as assessed by Ofwat and other regulators, in order to incentivise sector-leading performance in a transparent and accountable way; and

- The LTVPS is focused on the long term strategic, customer value and financial performance of Welsh Water.

REMUNERATION POLICY REPORT (continued)

The Group negotiates salaries for the wider workforce with three recognised trade unions by means of a single table approach. The Remuneration Committee takes note of the process and the agreed increase for the wider employee base and also reviews market practice and conditions.

The Measures of Success and cost elements which form the basis of the AVPS for Executive Directors and the wider Executive team are also the basis of variable pay arrangements across the organisation. The Committee does not formally consult with employees on Executive pay, but does regularly seek the views of the Director of Human Resources and takes into account views expressed in dialogue with Glas Members as well as benchmarking and best practice.

Discretion Retained by the Remuneration Committee

The Committee will operate the AVPS and LTVPS according to their respective scheme policies and in accordance with the Listing Rules, UK Corporate Governance Code, and IA/ISS Guidelines where appropriate.

The Committee retains discretion, consistent with market practice, in relation to the operation and administration of these schemes. These include, but are not limited to, taking into account significant safety or reputational issues, or significant deterioration of performance.
The scheme rules allow for clawback of variable pay from directors, whether before or after awards have vested.

Oversight of Remuneration Policies for the Wider Group

As part of its ongoing review of policies, the Committee takes account of remuneration across the Group as a whole, and the appropriateness of targets, while recognising that the detail and implementation of pay policies for the wider workforce is a matter for the Executive team. Figure 1 (below) summarises the components of the Executive Directors' remuneration packages in accordance with the Group's Remuneration Policy.

Figure 1: Components constituting the Executive Directors' remuneration packages

	Purpose and link to strategy	Operation	Opportunity	Performance metrics
Base salary	To help recruit, retain and motivate high calibre employees	Normally reviewed annually and any increases applied with effect from 1 April. Review reflects: — role, experience and performance — wider economic conditions — increases awarded throughout the rest of the broader workforce — takes periodic account of levels in other utilities in the wider market.	Annual increases generally linked to those of the wider workforce though the Remuneration Committee retain discretion to award increases to individuals above this level where appropriate. Current salaries disclosed in the Annual Report on Remuneration	None
Benefits	To provide a market competitive benefits package to help recruit and retain employees Healthcare benefits promote business continuity.	Directors are entitled to private health cover and life insurance The Chief Executive and the Chief Operating Officer have a historic entitlement to permanent health insurance The Managing Director receives a car allowance of £5,000 with effect from 1 October 2017 Other benefits such as relocation expenses or travel/accommodation allowances may be offered as appropriate.	Value of benefits is based on the cost to the company and is not predetermined.	None
Pension	To help recruit and retain high calibre employees Discrete post-retirement planning provision.	From 1 April, 2017 previous active members of the DCWW Defined Benefit Pension Scheme transferring to the DCWW Group Personal Pension Plan (in line with other employees) receive an employer contribution of up to 24% of salary with the opportunity to opt out and receive a cash alternative allowance equivalent to the employer contribution. For other active members of the DCWW Group Personal Pension Plan the maximum employer contribution to the DCWW Group Personal Pension Plan is 11% providing the employee contributes 6% or more. New Executive Directors are automatically enrolled in the DCWW Group Personal Pension Plan with the opportunity to opt out and receive a cash allowance equivalent to the prevailing Employer contribution, adjusted for NI contributions.to opt out and receive a cash allowance equivalent to the prevailing Employer contribution.	Effective from 1 April 2017, the Chief Executive receives a cash alternative allowance of 21.1% of salary and the Manging Director receives a cash alternative allowance of 15.8% of salary. The value is commensurate with previous payments but delivered through an alternative vehicle.	None
AVPS	To incentivise the annual delivery of stretching targets and delivery of personal objectives.	AVPS targets reviewed annually by the Committee Targets designed to relate to areas of the business over which executive has particular control Outturn determined by the Remuneration Committee after the year end based on performance against targets — Paid as cash — Not pensionable	Maximum 100% of salary	Measures will aligned to the Business Plan themes of Customer, Compliance and Cost with additional Annual focus and Personal targets

Figure 1: Components constituting the Executive Directors' remuneration packages (continued)

	Purpose and link to strategy	Operation	Opportunity	Performance metrics
AVPS	To incentivise the annual delivery of stretching targets and delivery of personal objectives.	Clawback provisions apply in the following circumstances: - Restatement of accounts - Material misrepresentation - Gross misconduct or caused reputational damage to the company or Group company The Committee also retains the discretion to withhold awards in the event of significant issues affecting the safety or the reputation of the company AVPS awards may be clawed back either prior to the payment of the award for a particular financial year or for a period of 6 years from the date of payment. AVPS targets reviewed annually by the Committee .	Maximum 100% of salary	Measures will aligned to the Business Plan themes of Customer, Compliance and Cost with additional Annual focus and Personal targets
LTVPS	To align the long term interests of the Executive Directors with those of Welsh Water's customers and stakeholders To incentivise achievement of value creation over the long term	Cash awards based on stretching performance targets relating to: - rolling three year relative SIM performance - combined measure of the growth in Reserves and Transfers to Customer Reserves Clawback provisions apply in the following circumstances - Restatement of accounts - Material misrepresentation - Gross misconduct or caused reputational damage to the company or Group company — Combined measure of the growth in Customer Reserves and Transfers to the Customer Payment Account The Committee also retains the discretion to withhold rewards in the event of significant issues affecting the safety or the reputation of the company LTVPS awards may be clawed back either prior to the payment of the award for a particular financial year or for a period of six years from the date of payment.	300% of salary over the five year regulatory period to 31 March 2020 (a maximum potential award of 60% per annum)	50% based on relative SMS performance 50% based on customer value generated
Non **Executive Directors**	Provides an appropriate level of fixed fee to recruit and retain individuals with a broad range of experience and skill to support the Board in the delivery of its duties.	The Remuneration Committee determines the fee payable to the Chairman of the Board and, separately, the Executive Directors and the Chairman approve the fee level payable to the Non-Executive Directors. All directors are paid for expenses incurred in connection with their role on the Board and any taxable benefits implications that may result.	Non-Executive Directors do not receive any fees for chairing Committees. The Senior Independent director is paid more to reflect the breadth of his/her duties.	None

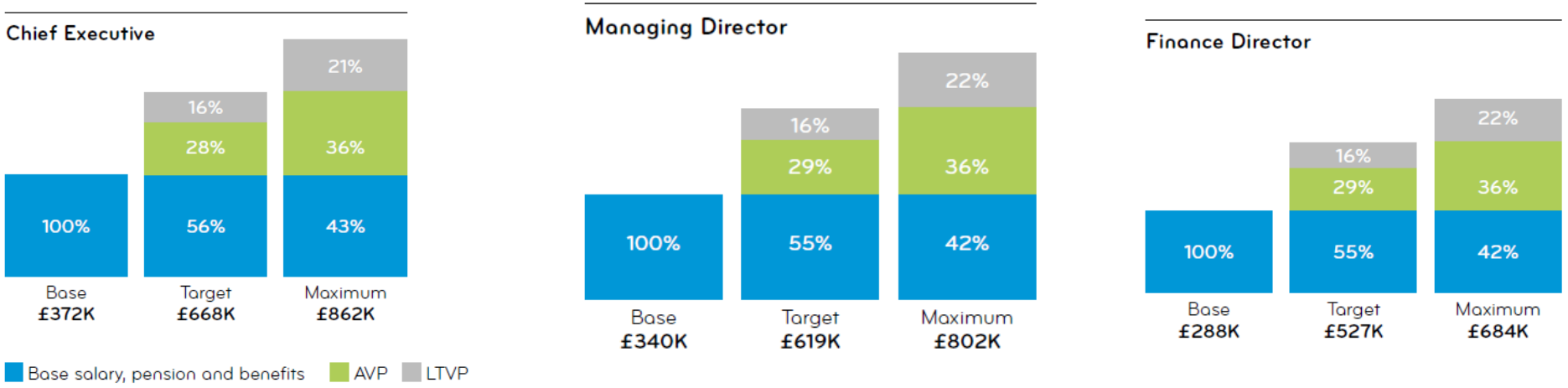
Figure 1: Components constituting the Executive Directors' remuneration packages (continued)

New Executive Director appointments	Base salary levels will be set to reflect the experience of the individual, appropriate market data and internal relativities. If it is considered appropriate to appoint a new Executive Director on a below market salary they may be subject to a series of increases to the desired salary positioning over an appropriate timeframe subject to performance in post. This approach will apply to both internal and external appointments. The policy will be for the new Executive Director to participate in the remuneration structure detailed above. Exceptions to this could be setting different measures or implementing transitional arrangements should an Executive Director join part way through the five year regulatory period. For internal promotes to Executive Director, entitlement to previously accrued AVPS or LTVPS up to the appointment date will be unaffected. Should it be the case that the Remuneration Committee considers it necessary to buy out incentive pay which an individual would forfeit on leaving their current employer, such compensation, where possible, will be structured so that the terms of the buyout mirror the form and structure of the remuneration being replaced.
Policy for payments to departing executives	The Executive Directors have service contracts that are subject to a 12 month notice period and which do not provide for compensation to be payable in the event of early termination by the Group. At the Group's discretion, an Executive Director may be paid base salary alone in lieu of notice. A significant element of mitigation is built into the contract should the Group choose to exercise its option to make a payment in lieu of notice. When an Executive Director leaves via redundancy and is not required to work his/her notice period, he/she will be entitled to Statutory Redundancy plus 12 months' pay in lieu of notice together with pay in lieu of accrued but untaken holidays. Should an Executive Director resign, he/she will be expected to work their notice period unless an alternative arrangement such as garden leave or a reduced notice period is agreed. In the event that the Group terminates the Executive's employment, the Group will take legal advice and will pay to the Executive only such amount as the Executive is legally entitled to receive. In the event of cessation of employment AVPS and LTVPS awards will be treated in line with the relevant scheme rules which describe the treatment of any payment with reference to 'good' or 'bad' leaver terms. Any vested amount already paid to the Executive prior to the date of cessation of employment may be retained in full by the Executive.

Figure 1: Components constituting the Executive Directors' remuneration packages (continued)

The graphs below show for each Executive Director:

- the base level of remuneration, which is not dependent upon performance and comprises basic salary, benefits in kind and pension;
- the expected level of remuneration, reflecting a typical level of performance against targets for the AVP and LTVP; and
- the maximum level of remuneration, if all AVP and LTVP performance targets



ANNUAL REPORT ON REMUNERATION

Remuneration Policy for Executive Directors — implementation of the policy

Salary

Following a review in March 2018 the Remuneration Committee set the base salaries for the Executive Directors for 2018-2019 (effective 1 April 2018) shown in figure 2. This mirrors the 3% increase awarded to employees on 1 April 2018 in accordance with the five year pay deal agreed with the Group's three recognised trade unions (GMB, UNISON and UNITE) in 2015 and those employees not covered by the Working Together Agreement. Details of Executive Directors' base salaries within Welsh Water and the Water Industry generally were taken into account during negotiations for the wider workforce pay settlement.

Following the restructure of the Executive team in October 2017, Peter Perry's increase reflects the annual pay review and his new role as Manging Director of the regulated business Welsh Water.

FIGURE 2: EXECUTIVE DIRECTORS' BASE SALARIES

	Effective 1 April 2017	Effective 1 October 2017	Effective 1 April 2018
Chris Jones	£297,267	£297,267	£306,186
Peter Perry	£240,220	£280,000	£288,400
Peter Bridgewater	£240,220	£240,220	£247,427

Fees Payable to the Chairman

The fees payable to the Chairman were reviewed in March 2017 and the Committee resolved that the Chairman's fee should be increased from £212,000 to £215,400 per annum (1.6% rounded up) with effect from 1 April 2017 in line with the wider employee base. A further review took place in March 2018 and the Chairman's fee was further increased to £221,900 per annum (3% rounded up) with effect from 1 April 2018 again in line with the general increase to employees.

Fees Payable to Non-Executive Directors

In March 2017 the Chairman and Executive Directors resolved that the fees for Non-Executive Directors should be increased from £58,900 to £59,850, with the fee for the Senior Independent Director rising from £69,700, to £70,820 (approximately 1.6% in each case) with effect from 1 April 2017. A further review took place in May 2018 and it was resolved that the fees for Non-Executive Directors should be increased to £61,650, with the fee for the Senior Independent Director rising to £72,950 (approximately 3% in each case) with effect from 1 April 2018. These increases are also in line with employees generally. The total amount of fees payable to Non-Executive Directors in 2017-18 was £600,421 (2016-17: £588,026).

ANNUAL REPORT ON REMUNERATION (continued)

Annual Variable Pay Scheme (AVPS)

The maximum variable pay that Executive Directors can earn under the AVPS in 2018-19 is unchanged and equates to 100% of base salary. The achievement of variable pay is assessed across five components, consistent with how the AVPS was operated in 2017-18, as illustrated below.

FIGURE 3A: ANNUAL VARIABLE PAY SCHEME STRUCTURE 2018-2019

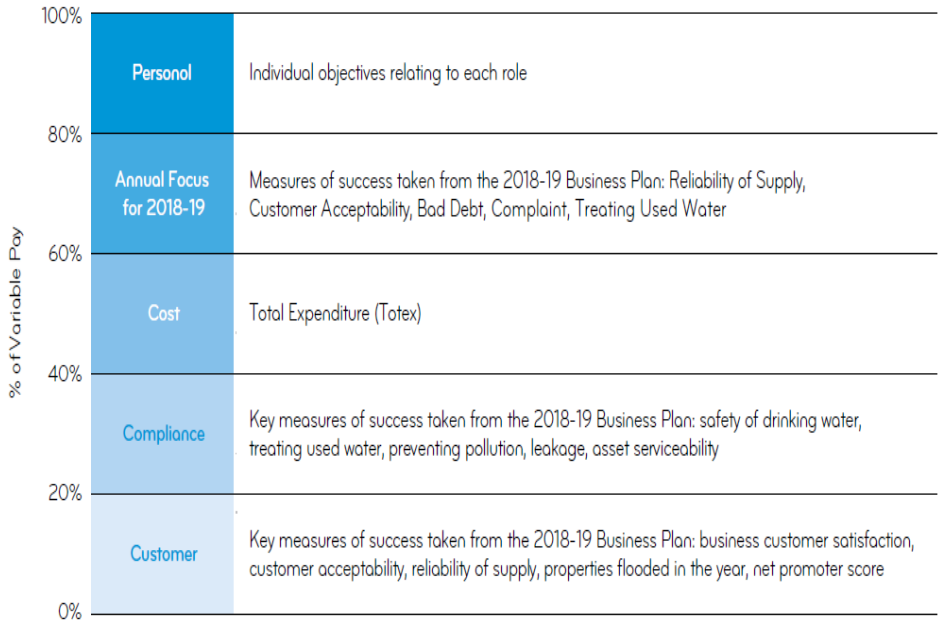


FIGURE 3B: AVPS PERFORMANCE MEASURES

	Customer	Compliance	Cost	Annual Focus	Personal
Performance measures	Key measures of success taken from the 2018-19 Business Plan: business customer satisfaction, customer acceptability, reliability of supply, properties flooded in the year, net promoter score	Key measures of success taken from the 2018-19 Business Plan: safety of drinking water, treating used water, preventing pollution, leakage, asset serviceability	Total Company Totex	Measures of success taken from the 2018-19 Business Plan: Reliability of supply, customer acceptability, bad debt, complaints and treating used water	Individual objectives relating to each role
Rationale for selected measures	Linked to the 2018-2019 business plan	Linked to the 2018-2019 business plan	Linked to the 2018-2019 business plan	Linked to the 2018-2019 business plan	Linked to the 2018-2019 business plan
Performance Period	One year	One year	One year	One year	One year
Performance target	5 measures with total maximum 20% award: – 25% of award payable for achieving threshold performance – 62.5% of award payable for achieving target performance – 100% of award payable for achieving stretch performance	5 measures with total maximum 20% award: – 25% of award payable for achieving threshold performance – 62.5% of award payable for achieving target performance – 100% of award payable for achieving stretch performance	1 measure with maximum 20% award: – 25% of award payable for achieving threshold performance – 75% of award payable for achieving target performance – 100% of award payable for achieving stretch performance	5 measures with total maximum 20% award: – 20% of award payable for achieving threshold performance – 60% of award payable for achieving target performance – 100% of award payable for achieving stretch performance	Variable number of measures with total maximum 20% award

ANNUAL REPORT ON REMUNERATION (continued)

Long Term Variable Pay Scheme (LTVPS)

The objective of the LTVPS is to align the longer term aspects of total remuneration with company performance over the course of the five year regulatory period ending on 31 March 2020. The awards comprise a cash payment. Under the LTVPS, awards can be made on the basis of performance against the following two discrete measures:

- a Customer Value Award, which combines two financial measures of the increase in Reserves (regulatory capital value less net debt) and Transfers to Customer Reserves (representing amounts available for Customer Distributions) over the regulatory period. The increase in Reserves (as a measure of financial position) and the transfers to the Customer Reserves (as a measure of financial flows), calculated separately but added together, captures the total value generated for customers (returned and retained) by the Group. Ultimately, this is the most important financial objective for the Executive Directors. This combined measure remains specific to the Glas Group set targets which are aligned with the five year Plan; and

- a Customer Service Award, which is measured by Welsh Water's average ranking in the Ofwat league table for SIM over a rolling three year period. The Customer Service Award is therefore informed by, and rewards, Welsh Water's performance relative to similar companies in the sector. SIM is used for the Customer Service Award and comprises two measures of customer service: a qualitative measure reflecting the results of independent research carried out on behalf of Ofwat to capture customer satisfaction with the service they have received; and a quantitative measure which covers customer complaints and unwanted calls.

The LTVPS performance targets reflect the Board's ambition that Welsh Water should rank alongside the leading companies in the industry on key measures for customer service and long term financial efficiency for the benefit of customers.

ANNUAL REPORT ON REMUNERATION (continued)

FIGURE 4: LTVPS PERFORMANCE MEASURES

	Customer Service	Customer Value[1]
Performance measures	Measured by reference to Ofwat's SIM measure.	Actual customer value created (increase in reserves and transfers to Customer Reserves) at 31 March 2020 (the end of the AMP6 period) compared to targets.
Rationale for selected measures	Ofwat's SIM measure of important customer experience which is independent, objective and measurable, and allows performance to be compared relative to other water and sewerage companies	This is the strongest financial measure of the total value generated for customers by the Company.
Performance Period	Three financial years immediately prior to the financial year in which an award is made	1 April 2015 to 31 March 2020 — as shown in Figure 5 below
Performance target[2, 3]	Out of UK's 10 water and sewerage companies: — 100% of award payable for achieving first position — 75% of award payable for achieving second position — 50% of award payable for achieving third position — 25% of award payable for achieving fourth position — 0% of award payable for a ranking of fifth or below.	Maximum 30% award each year if the value created is in line with the targets which are set each year but set three years in advance: — 100% of award payable for achieving stretch above target — 66% of award payable for achieving target — 0% for performance at or below threshold — Pro rata award payable for performance between these limits For the final two performance periods within AMP6, the Customer Value target for 2018-19 is £173million and for 2019-20 is £189 million.

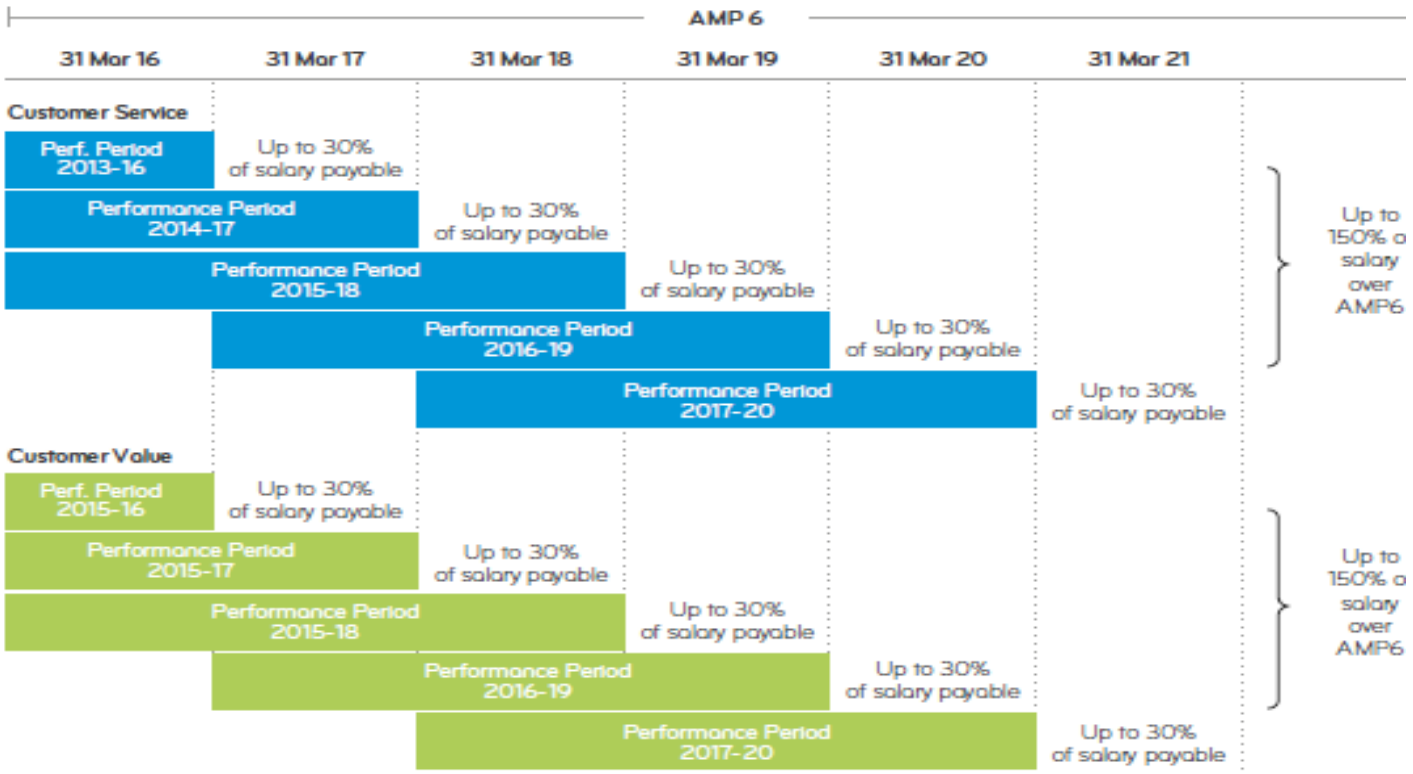
Footnote to Figure 4

1. The customer value targets may be amended in certain c
   These circumstances include where (i) there are differences between actual inflation and the assumptions originally made; (ii) there are any other significant external factors which the Committee determines to be outside the influence of the Executive Directors.
2. Payment may be deferred at the discretion of the Committee in the event that there is a significant deterioration in performance. Deferral may be for up to two years, or until the shortfall has been remedied, whichever is the earlier.
3. When determining the level of any award the Committee will have regard to the rating of the Group's bonds and may, at its discretion, defer all or part of an award if the Group's bonds have been put on credit watch or downgraded.

ANNUAL REPORT ON REMUNERATION (continued)

The period over which performance is determined and the potential payment dates over the regulatory period are illustrated in schematic figure 5. Details of payments made under the LTVPS for 2017-18 are set out in figure 6.

FIGURE 5: LTVPS PERFORMANCE PERIOD



ANNUAL REPORT ON REMUNERATION (continued)

WHAT WAS PAID IN 2017-2018 AND LINK BETWEEN PAY AND PERFORMANCE

Payments made to Directors in 2017-2018

Figure 6 sets out the Directors' emoluments in respect of the year ended 31 March 2018 in comparison to year ended 31 March 2018.

FIGURE 6: PAYMENTS AND BENEFITS EARNED BY DIRECTORS IN 2017-2018

	Salary/Fees		Taxable benefits[2]		Other		AVP[4]		LTVPS[5]		Pension Cash Alternative[6]		Total	
	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18
	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Chris Jones	292,585	297,267	1,068	1,250	-	-	220,609	192,034	114,840	47,563	-	62,723	629,102*	600,837
Peter Bridgewater	236,437	240,220	1,068	1,250	12,000	12,000	174,727	150,378	92,801	38,435	26,008	26,424	543,041	468,707
Peter Perry	236,437	260,110[1]	1,068	1,250	-	2,500	177,091	168,031	92,801	41,618	-	41,097	507,397*	514,606
Robert Ayling	58,048	-	-	-	-	-	-	-	-	-	-	-	58,048	-
Alastair Lyons	165,778	215,392	-	-	-	-	-	-	-	-	-	-	165,778	215,392
Stephen Palmer	58,900	44,882	-	-	-	-	-	-	-	-	-	-	58,900	44,882
Menna Richards	69,700	70,816	-	-	-	-	-	-	-	-	-	-	69,700	70,816
Anna Walker	58,900	59,850	-	-	-	-	-	-	-	-	-	-	58,900	59,850
John Warren	58,900	59,850	-	-	-	-	-	-	-	-	-	-	58,900	59,850
Graham Edwards	58,900	59,850	-	-	-	-	-	-	-	-	-	-	58,900	59,850
Joanne Kenrick	58,900	59,850	-	-	-	-	-	-	-	-	-	-	58,900	59,850
Tom Crick	-	29,925	-	-	-	-	-	-	-	-	-	-	-	29,925
Total	1,353,485	1,398,012	3,204	3,750	12,000	14,500	572,427	510,443	300,442	127,616	26,008	130,244	2,267,566	2,184,565

ANNUAL REPORT ON REMUNERATION (continued)

Determination of 2017-18 AVPS outcome

For 2017-18, the Remuneration Committee measured performance against each target, linked directly to the achievement of the company's strategy, as follows in the table below. Performance in 2017-18 resulted in an AVPS award of between 62% and 64% compared with an award of between 73.9% and 75.4% compared to 79.4% for the Executive Directors in 2016-17

FIGURE 7: AVPS 2017-2018 OUTCOME (AUDITED)

Measure	Weighting	Summary of targets (% of salary)	Result	% of maximum
Customer — Business Customer Satisfaction — Customer Acceptability — Reliability of Supply — Properties Flooded in the Year — Net Promoter Score	20%	Threshold 5% Target 12.5% Stretch 20%	9.2%	46%
Compliance — Safety of Drinking Water — Treated Used Water — Preventing Pollution — Leakage — Asset Serviceability	20%	Threshold 4% Target 12.5% Stretch 20%	13.6%	68%
Cost — Total Company Totex	20%	Threshold 5% Target 15% Stretch 20%	15.5%	77.5%
Annual focus — Reliability of Supply — Customer Acceptability — Bad Debt — Complaints	20%	Threshold 4% Target 12% Stretch 20%	8.3%	41.5%
Personal	20%		16%-18%	80%-90%
Total	100%		62.6% - 64.6%	62.6% - 64.6%

ANNUAL REPORT ON REMUNERATION (continued)

Determination of 2017-18 LTVPS outcome

Welsh Water's SIM rating relative to the SIM rating of the other water and sewerage companies over the three year performance period to 31 March 2018 will not be known until later in the year. At this time, it is estimated to be ranked joint 6th, in which case no award would be payable. The actual award will be determined later in the year when full comparative information is published by Ofwat. The maximum potential is 30% of salary.

For the Customer Value element of the scheme measured from 1 April 2017 to 31 March 2018, a payment of 16% of salary (53.3% of maximum for this element) has been made. This has been based on the Remuneration Committee's determination that total value generated for LTVPS purposes in the year ended 31 March 2018 was £125 million against a target of £129 million (and a stretch of £139 million).

Pension benefits

For the period 1 April 2017 to 31 March 2018 Chris Jones and Peter Perry were active members of the DCWW Pension Scheme (the 'Scheme') which is a defined benefit pension arrangement.

Pensionable Service stopped accruing with effect from 31 March 2017 however future increases to Pensionable Earnings will be taken into account when calculating benefits. The Scheme also provides life cover of four times Pensionable Salary for death in service, a pension payable in the event of retirement due to ill health and a spouse's pension payable on the death of the member.

Chris Jones and Peter Perry are Lifetime Allowance and/or Annual Allowance Capped Members of the Scheme and where their Scheme benefits exceed HMRC limits additional benefits are provided via an Employer Financed Retirement Benefit Scheme (EFRBS). The company's obligations under the EFRBS will not be funded, however such obligations constitute liabilities of the company, payable when they are due.

Following consultation with the recognised Trade Unions in 2014-2015, a decision was made to remove the right to an unreduced pension upon redundancy or selective voluntary severance with effect from 1 April 2015; remove the right to draw a DCWW pension whilst remaining employed; and to close the DCWW Pension Scheme to accrual of Pensionable Service with effect from 31 March 2017.

ANNUAL REPORT ON REMUNERATION (continued)

Pension benefits (continued)

As compensation, it was agreed that enhanced employer contributions to the Group Personal Pension Plan (GPPP) would be made for those affected by the scheme closure until 31 March 2020.
In April 2016 a cash alternative plan was introduced for senior managers. The Chief Executive and Managing Director opted to receive a cash alternative allowance with effect from 1 April 2017.
The Chief Executive was in a special member benefit category of the EFRBS (building up a pension at a rate of 1/45 of pensionable salary each year compared to the 1/60 of pensionable salary accrued by the wider DCWW Pension Scheme membership).

It was, therefore, agreed by the committee the respective proportionate enhancements would be provided to the Chief Executive and the Managing Director until 31 March 2020.

Effective from 1 April 2017, the Chief Executive receives a cash alternative allowance of 21.1% of salary and the Managing Director receives a cash alternative allowance of 15.8% of salary. The enhanced payments will only be paid until 31 March 2020. Effective from 1 April 2020, the Chief Executive will receive a cash alternative allowance of 12.9% of salary and the Managing Director will receive a cash alternative allowance of 9.7% of salary. The pension benefits earned by the Directors in the Scheme during the year are shown in figure 8 which has been audited.

Since his employment began on 1 September 2014, Peter Bridgewater has opted to receive a cash alternative allowance of 11% of salary.

Other Benefits
Executive Directors have the benefit of private health cover. Chris Jones and Peter Perry also have permanent health insurance.

ANNUAL REPORT ON REMUNERATION (continued)

Pension benefits (continued)

FIGURE 8: PENSION BENEFITS

Changes in accrued pensions benefits for the Chief Executive and Managing Director during the year are shown below (audited).

Year ending 31 March 2017	Normal Retirement Age	Accrued pension at 31 March 2016	Capitalised value of accrued pension at 31 March 2016	Revalued capitalised value of accrued pension at 31 March 2016[1]	Accrued pension at 31 March 2017	Capitalised value of accrued pension at 31 March 2017	Member contributions paid during the year 2017	Pension Input Amount (net of member contributions 2017)[2]
		£	£	£	£	£	£	£
Chris Jones	60	134,978	2,699,562	2,699,562	143,505	2,870,094	26,333	144,199
Peter Perry	60	134,803	2,696,056	2,696,056	142,346	2,848,920	21,279	129,585

Year ending 31 March 2018	Accrued pension at 31 March 2017	Capitalised value of accrued pension at 31 March 2017	Revalued capitalised value of accrued pension at 31 March 2017[1]	Accrued pension at 31 March 2018	Capitalised value of accrued pension at 31 March 2018	Member contributions paid during the year 2018	Pension Input Amount (net of member contributions) 2018[2]
Chris Jones	143,505	2,870,094	2,898,795	148,824	2,976,480	-	77,685
Peter Perry	142,346	2,846,920	2,875,390	154,855	3,097,100	-	221,710

In accordance with the approach applied for other employees upon closure of the defined benefit pension scheme to future accruals of pensionable service, the pension benefits for Chris Jones and Peter Perry continue to increase in line with increases in their base salary, and these increases are provided for in the Employer Funded Retirement Benefits Scheme. The capitalised value of the accrued entitlement represents the value of the assets that the pension scheme would transfer to another pension provider on transferring the scheme's liability in respect of a director's pension benefits. It does not represent sums payable to a director and therefore cannot be added meaningfully to annual remuneration.

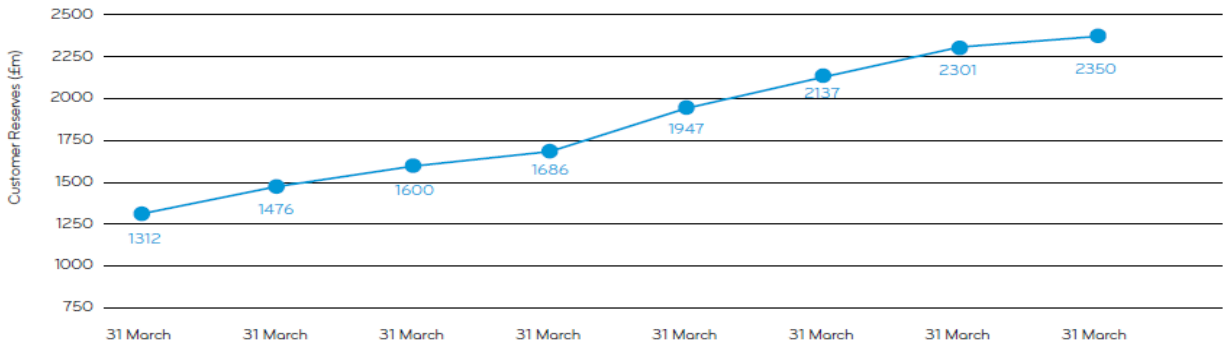
Benefit notes:
1. Increased by the actual CPI growth figure at the previous September – 0% for the 2017 disclosure period and 1% for 2018.
2. Based on the capitalised value of accrued pension at the year-end, less the revalued capitalised value of accrued pension at the start of the year.
- The accrued pensions include previous Pensionable Service completed in Hyder Water and United Utilities Pension Schemes.
- The accrued pension figures include both the standard entitlements within the Scheme (which are restricted in accordance with HMRC limits) and the top-up benefits which are payable under the EFRBS.

ANNUAL REPORT ON REMUNERATION (continued)

Comparison of overall pay and performance

Figures 9 and 10 show how our pay awards have compared with performance and compares the total pay of our Chief Executive to year on year growth in Customer Reserves (i.e. financial reserves being Regulatory Capital Value less net debt) over the previous eight years.

FIGURE 9: CUSTOMER RESERVES OVER EIGHT YEARS TO 31 MARCH 2018



For 2014, full financial figures have been provided for Chris Jones and Nigel Annett and do not solely relate to the period as Chief Executive/Managing Director LTVPS for AMP5 shows as a percentage of maximum rather than a percentage of salary awarded.

FIGURE 10: OVERALL PAY AND PERFORMANCE

	2011	2012	2013	2014	2015	2016	2017	2018
	£	£	£	£	£	£	£	£
Total remuneration for Chief Executive (Chris Jones)	-	-	-	741,569	973,688	746,430	629,102	600,837
Total remuneration for Managing Director (Nigel Annett)	665,965	677,770	590,210	709,890	-	-	-	
AVPS award (Chris Jones)	-	-	-	51.1%	79.4%	70.3%	75.4%	64.6%
AVPS award (Nigel Annett)	76.3%	77.6%	60.6%	49.9%	-	-	-	-
LTVPS for AMP6	-	-	-	-	-	39%	39.25%	16%
LTVPS for AMP5	25.0%	40.0%	50.0%	78.6%	90.6%	-	-	-

ANNUAL REPORT ON REMUNERATION (continued)

Relative Importance of Spend on Pay

The Remuneration Committee considers the cost of remuneration in relation to other factors such as company performance. Figure 11 sets out the change in total expenditure, total employee remuneration costs and Customer Reserves in 2018 compared to 2017.

FIGURE 11: RELATIVE IMPORTANCE OF SPEND ON PAY

	2017	2018	Change	
	£m	£m	£m	%
Total expenditure[1]	868.5	980.7	112.2	12.9%
Employee remuneration costs	134.4	151.2	16.8	12.5%
Customer Reserves[2]	2301	2350	49	2.1%
Executive Director remuneration costs	1.95	1.58	(0.37)	(18.9%)

1. Operational expenditure, capital expenditure and financing costs.
2. Regulatory capital value less net debt. Customer equity metric included to enable comparisons with shareholder owned companies.

ANNUAL REPORT ON REMUNERATION (continued)

Alignment of Pay across the Group

The Committee recognises that pay should be fair throughout the Group. Therefore, in making decisions in relation to the structure of Executive pay, the Committee takes into account the pay structures throughout the business, in particular noting that the annual variable pay "colleague or employee bonus" is aligned to the same measures as the Executive annual variable pay scheme.

Percentage Increase in the Remuneration of the Chief Executive Officer

Figure 12 shows the movement in salary, for Chris Jones as Chief Executive Officer between the current and previous financial year compared with that of the average employee. The Committee looks to ensure that the approach to fair pay is implemented in practice throughout the Group.

Ratio of Chief Executive to Average Employee Salary

This ratio uses the figure for total CEO salary included in Figure 6. See the notes to this table for information as to how this has been calculated for 2017-18.If the capital transfer value in Figure 8 is included, the ratio would be 15:1.

FIGURE 12: PERCENTAGE CHANGE IN CEO'S SALARY COMPARED WITH OTHER EMPLOYEES

	Chief Executive % change from 2016-17	Employees % change from 2016-17
Salary	3%	3%

FIGURE 13: RATIO OF CHIEF EXECUTIVE TO AVERAGE EMPLOYEE SALARY

Chief Executive Remuneration: Average Employee Remuneration
13.5:1 (2016-17: 15.5:1)

ANNUAL REPORT ON REMUNERATION (continued)

Details of Directors' Service Contracts and Letters of Appointment

Dates of the service contracts of the Executive Directors and letters of appointment of the Non-Executive Directors in place at 31 March 2018 are as follows:

Chris Jones	4 July 2013
Peter Perry	17 September 2013
Peter Bridgewater	1 September 2014
Menna Richards	22 November 2010
Anna Walker	3 March 2011
John Warren	3 May 2012
Graham Edwards	1 October 2013
Joanne Kenrick	1 November 2015
Alastair Lyons	1 May 2016
Tom Crick	1 October 2017

The Board considers that all the members of the Remuneration Committee are independent and, in the case of Alastair Lyons, that he was considered to be independent on his appointment as Chairman of the company. The Chief Executive and the Director of Human Resources attend meetings of the Remuneration Committee by invitation (except where their own remuneration is discussed). The Remuneration Committee was convened on six occasions in 2017-18.

From April — July 2017, the Remuneration Committee received independent advice from New Bridge Street (NBS), a trading name of Aon Hewitt Limited (an Aon plc company). The fees paid to NBS for this period totalled £15,906. For the remainder of 2017-18, the Committee received independent advice from Mercer, who were appointed with effect from July 2017 for a period of up to five years, following a competitive tender process. The fees payable to Mercer for the period 2017-18 totalled £52,340. Both NBS and Mercer are considered by the Committee to be independent, and are signatories to the Remuneration Consultants Group Code of Conduct and any advice given is governed by the Code.

APPENDIX I: FINANCIAL FLOWS

EXECUTIVE SUMMARY: WHAT DO THE TABLES TELL US?

Over the past three years the returns to equity for Welsh Water have averaged 6.23%, after inflation; lower than the 7.43% assumed by Ofwat. Our cautious financing structure and higher capital expenditure, funded by surpluses which would have gone to shareholders (if we had any) have contributed to this, while we have had some small overall benefit from our operational performance through ODI "rewards".

Gearing and cost of debt

Our gearing is lower in all of the years reported. This reduces our return on regulatory equity as there is therefore more equity in the business than assumed in the PR14 Final Determination (FD14) for a notional company. In practice, of course, the Glas group does not have shareholders and all returns are invested back into the business or returned to customers.

We had no allowance for corporation tax in FD14, and so the tables report variances in individual years as a consequence of non-cash tax accounting charges; the average is broadly neutral although there is a very small beneficial impact on returns to equity.

Our cost of debt, excluding the impact of hedging instruments, slightly outperforms the FD14 assumptions. However, while our hedging instruments provide cost certainty and stability, they have increased our overall cost of debt over the past three years. Overall therefore our cost of debt has been higher than the FD14 assumptions, giving a reduction to the returns to equity.

Cost and operational performance

We had a generally slow start to our investment programme at the beginning of AMP6, but we have caught up with our regulated programme and our overall increase in spending includes "Customer Distributions" expenditure, being additional investment for the benefit of customers funded from surpluses which would, in shareholder owned companies, go to shareholders.

Our ODI profile reflects initial and sustained outperformance on pollution prevention and property flooding, however we expect to suffer penalties as a result of our performance in 2017-18 on customer acceptability and reliability of supply, mainly from the impact of Storm Emma and "the Beast from the East" weather in March. These broadly net to zero over the reporting period.

We have invested more than our FD14 Retail cost allowances, with additional expenditure to improve service and achieve future cost reductions (focusing on debt management and customer contact activity, as well as enhanced Web services).

APPENDIX I: FINANCIAL FLOWS (continued)

Dividends

The reported dividend values do not represent payments to shareholders in the traditional sense. Our group structure is based on a not-for-shareholder business model and Glas Cymru Holdings Cyfyngedig, the ultimate parent company, has no shareholders. All retained earnings are used for the benefit of customers; in recent years we have used these to reduce the bills of vulnerable customers, improve service to customers and to bring down the level of gearing to reduce the cost of new debt.

TABLES DETAILED TABLE PREPARATION COMMENTARY

Introduction and assumptions

Welsh Water shares Ofwat's vision for the water sector in England and Wales: one where customers, the environment and wider society have trust and confidence in vital public water and waste water services. Ofwat is working towards improving the transparency concerning financial flows to investors, and expects that in the future there will be a clear comparison in the annual performance reports (APR) between the financial flows to investors on the basis of the actual capital structures of water companies and what they would have been under our notional structure.

Table 1F has been introduced in order to collect such data, and on a trial basis for 2017/18 covering that report year along with the previous two report years. We have completed the table in line with IN 18/08, as revised by updated guidance and proforma tables emailed to Finance Directors on 23 May 2018.

We appended our original table to Part 4 of the APR rather than including it within Part 1 (where it would naturally fit, following table 1E). We did this because, similarly to other companies, we obtained assurance over the tables in Part 4 via a range of "agreed-upon procedures" performed by our independent external auditors, i.e. they do not express an audit opinion on those tables. Owing to the trial nature of Table 1F for 2017/18, we felt it was appropriate to approach our external assurance requirements in this way; to agree a set of procedures that would provide assurance that the table had been completed in line with the guidance, that the calculations had been performed correctly and that the data quoted agreed back to the source documentation.

Note that, in completing this table, we have assumed that all figures should be reported in £m as opposed to £ (as stated on the proforma table), as this is in keeping with the denomination of values set in the Final Determination. For F2 we have therefore input the regulatory equity base values in £m to 0DP (the line description requests this), and all other £m inputs are in Columns B and C to 1DP as this is the maximum number of decimal places visible on the output sheets.

APPENDIX I: FINANCIAL FLOWS (continued)

Ofwat's guidance refers to Columns A, B and C which represent the first, second and third columns of each of the two sections of the table; one reports percentage values (%) and the other pounds (£ million). We have labelled these accordingly.

As this is the table's introductory year and there is potential for companies to interpret certain elements of its completion in different ways, we have set out our detailed calculations underpinning each input as well as narrative to explain variances against the PR14 Final Determination.

APPENDIX I: FINANCIAL FLOWS (continued)

1F - Financial flows average for AMP6 (price base - 2012-13 RPI average)

Line description		Units	DPs	%			£m		
				Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity
A				Column A	Column B	Column C	Column A	Column B	Column C
1	Return on regulatory equity	%	2	5.64%	6.43%	5.64%	100.8	115.0	115.0
1a	Actual performance adjustment 2010-2015	%	2	(0.52%)	(0.60%)	(0.52%)	(9.4)	(10.7)	(10.7)
1b	Adjusted return on regulatory equity	%	2	5.12%	5.83%	5.12%	91.5	104.3	104.3
2	Regulatory equity base	£m	0	1,788	1,788	2,039			
B	**Financing variances**								
3	Gearing variance	%	2	-	(0.43%)	(0.37%)	-	(7.6)	(7.6)
4	Variance in corporation tax	%	2	-	0.02%	0.02%	-	0.4	0.4
5	Group relief variance	%	2	-	-	-	-	-	-
6	Cost of debt variance	%	2	-	1.01%	0.89%	-	18.1	18.2
7	Hedging instruments variance	%	2	-	(1.01%)	(0.96%)	-	(19.7)	(19.7)
8	**Subtotal of adjusted returns after financing variances**	%	2	**5.12%**	**5.34%**	**4.69%**	**91.5**	**95.5**	**95.6**
C	**Operational performance variances**								
9	Totex out/(under) performance	%	2	-	(0.81%)	(0.71%)	-	(14.4)	(14.4)
10	ODI out/(under) performance	%	2	-	0.01%	0.01%	-	0.2	0.2
11	Retail out/(under) performance	%	2	-	(0.08%)	(0.07%)	-	(1.5)	(1.5)
12	**Subtotal of operational performance variances**	%	2	**-**	**(0.88%)**	**(0.77%)**	**-**	**(15.7)**	**(15.7)**
13	Total adjusted returns after all variances	%	2	5.12%	4.46%	3.92%	91.5	79.8	79.9
14	Impact of inflation on RCV	%	2	2.32%	2.32%	2.32%	41.4	41.4	47.2
15	**Total "shareholder" return**	%	2	**7.43%**	**6.78%**	**6.23%**	**132.9**	**121.2**	**127.1**
16	Net dividend	%	2	4.00%	6.16%	5.40%	71.5	110.1	110.1
17	**Retained value**	%	2	**3.43%**	**0.62%**	**0.83%**	**61.4**	**11.1**	**17.0**
D	**Dividends reconciliation**								
18	Gross dividend	%	2	4.00%	6.16%	5.40%	71.5	110.1	110.1
19	Interest receivable on intercompany loans	%	2	-	-	-	-	-	-
20	**Net dividend**	%	2	**4.00%**	**6.16%**	**5.40%**	**71.5**	**110.1**	**110.1**

APPENDIX I: FINANCIAL FLOWS (continued)

1F - Financial flows for the 12 months ended 31 March 2016 (price base - 2012-13 RPI average)

				%			£m		
Line description		Units	DPs	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity
A				Column A	Column B	Column C	Column A	Column B	Column C
1	Return on regulatory equity	%	2	5.65%	6.28%	5.65%	98.9	109.9	109.9
1a	Actual performance adjustment 2010-2015	%	2	(0.53%)	(0.59%)	(0.53%)	(9.3)	(10.3)	(10.3)
1b	Adjusted return on regulatory equity	%	2	5.12%	5.69%	5.12%	89.7	99.6	99.6
2	Regulatory equity base	£m	0	1,751	1,751	1,945			
B	**Financing variances**								
3	Gearing variance	%	2	-	(0.34%)	(0.30%)	-	(5.9)	(5.9)
4	Variance in corporation tax	%	2	-	(0.32%)	(0.29%)	-	(5.6)	(5.6)
5	Group relief variance	%	2	-	-	-	-	-	-
6	Cost of debt variance	%	2	-	0.41%	0.39%	-	7.2	7.5
7	Hedging instruments variance	%	2	-	(0.83%	(0.75%)	-	(14.6)	(14.6)
8	**Subtotal of adjusted returns after financing variances**	%	2	**5.12%**	**4.61%**	**4.16%**	**89.7**	**80.7**	**81.0**
C	**Operational performance variances**								
9	Totex out/(under) performance	%	2	-	2.78%	2.50%	-	48.7	48.7
10	ODI out/(under) performance	%	2	-	0.05%	0.05%	-	0.9	0.9
11	Retail out/(under) performance	%	2	-	(0.17%)	(0.15%)	-	(2.9)	(2.9)
12	**Subtotal of operational performance variances**	%	2	**-**	**2.67%**	**2.40%**	**-**	**46.7**	**46.7**
13	Total adjusted returns after all variances	%	2	5.12%	7.27%	6.56%	89.7	127.4	127.7
14	Impact of inflation on RCV	%	2	1.05%	1.05%	1.05%	18.4	18.4	20.5
15	**Total "shareholder" return**	%	2	**6.17%**	**8.33%**	**7.62%**	**70.0**	**145.8**	**148.1**
16	Net dividend	%	2	4.00%	17.26%	15.54%	70.0	302.3	302.3
17	**Retained value**	%	2	**2.17%**	**(8.94%)**	**(7.93%)**	**-**	**(156.5)**	**(154.2)**
D	**Dividends reconciliation**								
18	Gross dividend	%	2	4.00%	17.26%	15.54%	70.0	302.3	302.3
19	Interest receivable on intercompany loans	%	2	-	-	-	-	-	-
20	**Net dividend**	%	2	**4.00%**	**17.26%**	**15.54%**	**70.0**	**302.3**	**302.3**

APPENDIX I: FINANCIAL FLOWS (continued)

1F - Financial flows for the 12 months ended 31 March 2017 (price base - 2012-13 RPI average)

Line description		Units	DPs	%			£m		
				Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity
A				Column A	Column B	Column C	Column A	Column B	Column C
1	Return on regulatory equity	%	2	5.64%	6.51%	5.64%	101.1	116.7	116.7
1a	Actual performance adjustment 2010-2015	%	2	(0.52%)	(0.60%)	(0.52%)	(9.3)	(10.8)	(10.8)
1b	Adjusted return on regulatory equity	%	2	5.12%	5.91%	5.12%	91.8	106.0	106.0
2	Regulatory equity base	£m	0	1,792	1,792	2,070			
B	**Financing variances**								
3	Gearing variance	%	2	-	(0.47%)	(0.41%)	-	(8.5)	(8.5)
4	Variance in corporation tax	%	2	-	0.39%	0.34%	-	7.0	7.0
5	Group relief variance	%	2	-	-	-	-	-	-
6	Cost of debt variance	%	2	-	1.72%	1.44%	-	30.9	29.9
7	Hedging instruments variance	%	2	-	(1.05%)	(0.91%)	-	(18.8)	(18.8)
8	**Subtotal of adjusted returns after financing variances**	%	2	**5.12%**	**6.51%**	**5.58%**	**91.8**	**116.6**	**115.6**
C	**Operational performance variances**								
9	Totex out/(under) performance	%	2	-	(1.42%)	(1.23%)	-	(25.5)	(25.5)
10	ODI out/(under) performance	%	2	-	0.15%	0.13%	-	2.6	2.6
11	Retail out/(under) performance	%	2	-	0.05%	0.04%	-	0.9	0.9
12	**Subtotal of operational performance variances**	%	2	**-**	**(1.23%)**	**(1.06%)**	**-**	**(22.0)**	**(22.0)**
13	Total adjusted returns after all variances	%	2	5.12%	5.28%	4.52%	91.8	94.6	93.6
14	Impact of inflation on RCV	%	2	2.16%	2.16%	2.16%	38.7	38.7	44.7
15	**Total "shareholder" return**	%	2	**7.28%**	**7.44%**	**6.68%**	**130.4**	**133.3**	**138.3**
16	Net dividend	%	2	4.00%	1.56%	1.35%	71.7	27.9	27.9
17	**Retained value**	%	2	**3.28%**	**5.88%**	**5.33%**	**58.8**	**105.4**	**110.4**
D	**Dividends reconciliation**								
18	Gross dividend	%	2	4.00%	1.56%	1.35%	71.7	27.9	27.9
19	Interest receivable on intercompany loans	%	2	-	-	-	-	-	-
20	**Net dividend**	%	2	**4.00%**	**1.56%**	**1.35%**	**71.7**	**27.9**	**27.9**

APPENDIX I: FINANCIAL FLOWS (continued)

1F - Financial flows for the 12 months ended 31 March 2018 (price base - 2012-13 RPI average)

Line	Line description	Units	DPs	%			£m		
				Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity	Notional returns and notional regulatory equity	Actual returns and notional regulatory equity	Actual returns and actual regulatory equity
A				Column A	Column B	Column C	Column A	Column B	Column C
1	Return on regulatory equity	%	2	5.63%	6.50%	5.63%	102.5	118.3	118.3
1a	Actual performance adjustment 2010-2015	%	2	(0.52%)	(0.60%)	(0.52%)	(9.5)	(10.9)	(10.9)
1b	Adjusted return on regulatory equity	%	2	5.11%	5.90%	5.11%	93.0	107.4	107.4
2	Regulatory equity base	£m	0	1,820	1,820	2,101			
B	**Financing variances**								
3	Gearing variance	%	2	-	(0.47%)	(0.40%)	-	(8.5)	(8.5)
4	Variance in corporation tax	%	2	-	(0.01%)	(0.01%)	-	(0.2)	(0.2)
5	Group relief variance	%	2	-	-	-	-	-	-
6	Cost of debt variance	%	2	-	0.90%	0.82%	-	16.3	17.2
7	Hedging instruments variance	%	2	-	(1.41%)	(1.22%)	-	(25.6)	(25.6)
8	**Subtotal of adjusted returns after financing variances**	%	2	**5.11%**	**4.91%**	**4.30%**	**93.0**	**89.4**	**90.3**
C	**Operational performance variances**								
9	Totex out/(under) performance	%	2	-	(3.65%)	(3.16%)	-	(66.4)	(66.4)
10	ODI out/(under) performance	%	2	-	(0.16%)	(0.14%)	-	(3.0)	(3.0)
11	Retail out/(under) performance	%	2	-	(0.14%)	(0.12%)	-	(2.5)	(2.5)
12	**Subtotal of operational performance variances**	%	2	**-**	**(3.95%)**	**(3.42%)**	**-**	**(71.9)**	**(71.9)**
13	Total adjusted returns after all variances	%	2	5.11%	0.96%	0.87%	93.0	17.5	18.4
14	Impact of inflation on RCV	%	2	3.74%	3.74%	3.74%	68.0	68.0	78.5
15	**Total "shareholder" return**	%	2	**8.85%**	**4.70%**	**4.61%**	**161.0**	**85.5**	**96.9**
16	Net dividend	%	2	4.00%	-	-	72.8	-	-
17	**Retained value**	%	2	**4.85%**	**4.70%**	**4.61%**	**88.2**	**85.5**	**96.9**
D	**Dividends reconciliation**								
18	Gross dividend	%	2	4.00%	-	-	72.8	-	-
19	Interest receivable on intercompany loans	%	2	-	-	-	-	-	-
20	**Net dividend**	%	2	**4.00%**	**-**	**-**	**72.8**	**-**	**-**

APPENDIX I: FINANCIAL FLOWS (continued)

Line F1 – Regulatory return on equity

Guidance: *Columns A and C, the allowed equity return as set in the Final Determination (contained in the 'Companies populated risk assessment tools' files) companies should enter the value associated with the relevant reporting period. (Note: columns A and C use different regulatory values)*

Column B, reflects the impact on the allowed Return on Regulated Equity – Base of departing from the notional gearing structure. Calculated as the allowed equity return on the actual regulatory equity base (average RCV less average actual Net Debt), expressed as a percentage of the notional regulatory equity base.

The only input cell in F1 is the column A percentage, i.e. the allowed equity return as set in the Final Determination.

Companies' risk assessment tools are available at: https://www.ofwat.gov.uk/publications/companies-populated-risk-assessment-tools.

The post financeability adjustments below have been taken from the Dŵr Cymru model, tab "RORE-Tables", cells C15 to E15 and are at the appointee level.

The remaining cells in F1 are calculated automatically.

	2015/16	2016/17	2017/18
Allowed equity return as set in the Final Determination	**5.65%**	**5.64%**	**5.63%**

The % equity return allowed in the PR14 Final Determination (% Column A) is used, in conjunction with the allowed regulatory equity input to line 2 (% Column A), to create a monetary value of the allowed return at a notional level of gearing.

Ofwat also calculates the allowed £ equity return based on actual regulatory equity; this is calculated by applying the allowed return (% Column C) to the actual regulatory equity input to line 2 (% Column C) to create a monetary of the allowed return based on our actual gearing. In all of the years reported, the actual allowed return is a higher value than when based on the notional gearing level as it reflects our lower gearing and higher regulatory equity.

Column B in the £ section reports the allowed equity return on actual regulatory equity (contrary to the column heading), while Column B in the % section expresses this value as a proportion of notional regulatory equity. As our allowed return on actual equity is higher than on notional equity, this drives a higher %.

APPENDIX I: FINANCIAL FLOWS (continued)

Line F1 – Regulatory return on equity (continued)

Our lower gearing (%) and higher regulatory equity (£m) mean that we might expect to generate a higher £ return, however this does not necessarily reflect our actual return which is impacted by a number of other factors reported in the financial flows tables.

Line F1a – Actual performance adjustment 2010-2015

Guidance: *This relates to the PR09 out/(under)performance adjustments, contained in the 'companies populated PR14 financial models file' (Post financeability adjustments). The value for the reporting period should be divided by regulated equity, for the same period, and entered as a percentage.*

Companies' financial models are available at: https://www.ofwat.gov.uk/publications/companies-populated-pr14-financial-models.

The post financeability adjustments below have been taken from the Dŵr Cymru model, tab "Exec Summary", cells J133 to N133 and cells N133 to N155 for Water and Wastewater respectively. The input required is to the notional returns and notional regulatory equity column, therefore we have calculated the percentage using notional regulatory equity (line F2 column A).

The remaining cells in F1 are calculated automatically.

		2015/16	2016/17	2017/18
Post financeability adjustments: Water	£m	(6.6)	(6.6)	(6.6)
Post financeability adjustments: Wastewater	£m	(2.7)	(2.8)	(2.8)
		(9.3)	(9.4)	(9.4)
Notional regulatory equity (Line F2 Column A)	£m	1,751	1,792	1,820
Actual performance adjustment		**(0.53%)**	**(0.52%)**	**(0.52%)**

APPENDIX I: FINANCIAL FLOWS (continued)

Line F1a – Actual performance adjustment 2010-2015 (continued)

The "actual performance adjustment" adjusts the allowed equity return for our Water and Wastewater post financeability adjustments, set out in Ofwat's PR14 Final Determination. These reflect performance in AMP5 against the PR09 Determination and reduce the overall allowed return slightly (Line 1b).

Column B in the £ section reports the allowed equity return on actual regulatory equity (contrary to the template's column heading), while Column B in the % section expresses this value as a proportion of notional regulatory equity. As our allowed return on actual equity is higher than on notional equity, this drives a higher %.

This line demonstrates that the £ impact allowed on our actual regulatory equity is higher than on notional equity as we have more equity (lower actual gearing) than Ofwat assumed for a notional company.

F2 – Regulatory equity base

Guidance: *Calculated as the average of the opening and closing values for regulatory capital value (RCV) for the period, (as reported in Ofwat's publication 'Regulatory capital values') less:*

- notional gearing (62.5%) - Column A and B

- average gearing (using the opening and closing balances, for the reporting period, unless the company considers that a weighted average is more accurate in which case a narrative explanation must be provided) as reported in Table 1E (Net Debt) - Column C

APPENDIX I: FINANCIAL FLOWS (continued)

F2 – Regulatory equity base (continued)

Calculated as:

		2015/16	2016/17	2017/18
Opening RCV (March 2015/16/17 prices)	£m	4,907	5,140	5,392
Closing RCV (March 2016/17/18 prices)	£m	4,983	5,218	5,469
Indexation				
2012/13 year average RPI		244.7	244.7	244.7
March 2015/16/17 RPI		257.1	261.1	269.3
March 2016/17/18 RPI		261.1	269.3	278.3
Opening RCV (2012/13 year average prices)	£m	4,670	4,817	4,899
Closing RCV (2012/13 year average prices)	£m	4,670	4,741	4,809
Average RCV (2012/13 year average prices)	£m	4,670	4,779	4,854
Column A input				
Average RCV (2012/13 year average prices)	£m	4,670	4,779	4,854
Notional gearing		62.50%	62.50%	62.50%
Regulatory equity base: notional	**£m**	**1,751**	**1,792**	**1,820**
Column C input				
Average RCV (2012/13 year average prices)	£m	4,670	4,779	4,854
Opening gearing (Table 1E)		59.70%	57.01%	56.38%
Closing gearing (Table 1E)		57.01%	56.38%	57.05%
Average actual gearing		58.36%	56.70%	56.72%
Regulatory equity base: actual	**£m**	**1,945**	**2,070**	**2,101**

APPENDIX I: FINANCIAL FLOWS (continued)

F2 – Regulatory equity base (continued)

The actual regulatory equity base input is used to report the £ value of regulatory equity for Welsh Water at both a notional and actual level of gearing. It drives the calculation of allowed returns in Lines 1 and 1a.

Regulatory equity is calculated as the RCV value published in Ofwat's PR09 Final Determination multiplied by either the notional or actual gearing level. As our gearing is lower than Ofwat's assumption for a notional company in all of the years presented, we have a higher regulatory equity value.

F3 – Gearing

Guidance: *The impact of having a different structure to that assumed in the notional company. Calculated by:*
a) the difference in the notional gearing ratio (62.5%) and the actual unadjusted gearing (using the opening and closing balances, for the reporting period, unless the company considers that a weighted average is more accurate, in which case a narrative explanation must be provided) as reported in Table 1E (Net Debt)
b) the difference between the allowed return on regulatory equity –base and the allowed cost of debt as set in the Final Determination
c) multiplying a) x b)
d) multiplying c) by the average RCV

(Note: no adjustment should be made for corporation tax)

The only input cell in F3 is a value in Column C in the £ section.

APPENDIX I: FINANCIAL FLOWS (continued)

F3 – Gearing (continued)

		2015/16	2016/17	2017/18
a)				
Notional gearing		62.50%	62.50%	62.50%
Opening gearing (Table 1E)		59.70%	57.01%	56.38%
Closing gearing (Table 1E)		57.01%	56.38%	57.05%
Average actual gearing		58.36%	56.70%	56.72%
Difference		(4.15%)	(5.80%)	(5.79%)
b)				
Allowed equity return (see F1 commentary)		5.65%	5.64%	5.63%
Allowed cost of debt		2.59%	2.59%	2.59%
Difference		3.06%	3.05%	3.04%

The allowed cost of debt is stated in the Ofwat publication: Setting price controls for 2015-20, Final price control determination notice: policy chapter A7 - risk and reward [December 2014]; page 42.

		2015/16	2016/17	2017/18
c)				
a) multiplied by b)		(0.13%)	(0.18%)	(0.18%)
d)				
Average RCV				
(2012/13 year average prices; see F2 commentary)	£m	4,670	4,779	4,854
c)		(0.13%)	(0.18%)	(0.18%)
Impact of gearing difference	**£m**	**(5.9)**	**(8.5)**	**(8.5)**

APPENDIX I: FINANCIAL FLOWS (continued)

F3 – Gearing (continued)

The impact of gearing difference is the impact on our actual equity return of having a different level of gearing than Ofwat's assumption for a notional company.

Our gearing is lower in all of the years reported hence, as we would expect, "shareholder returns" are also lower than allowed in the PR14 Final Determination, although in practice, of course, the Glas group does not have shareholders and all returns are invested back into the business or returned to customers.

F4 – Variance in corporation tax

Guidance: *The difference between the amount allowed for corporation tax in the Final Determination less:*
- the tax payable at the standard rate of corporation tax of the profit/(loss) on appointed activities before fair value adjustments
- plus or minus any adjustment for accelerated or deferred capital allowances
- plus or minus any amounts for prior year adjustments

The only input cell in F4 is a value in Column C in the £ section.

		2015/16	2016/17	2017/18
Corporation tax FD allowance (2012/13 year average prices)	£m	-	-	-

The corporation tax allowance is stated in the Ofwat publication: Setting price controls for 2015-20, Final price control determination notice: company-specific appendix - Dŵr Cymru [December 2014]; page 28.

APPENDIX I: FINANCIAL FLOWS (continued)

F4 – Variance in corporation tax (continued)

		2015/16	2016/17	2017/18
Profit/(loss) on appointed activities before tax and fair value movements (Table 1A)	£m	32.3	(47.5)	(113.3)
Standard rate of corporation tax		20.00%	20.00%	19.00%
Profit/(loss) multiplied by standard rate	£m	6.5	(9.5)	(21.5)
Adjustment for capital allowances	£m	-	2.1	22.7
Prior year adjustments	£m	(0.5)	(0.2)	(0.9)
Subtotal (outturn prices)	£m	6.0	(7.6)	0.3
2012/13 year average RPI		244.7	244.7	244.7
Report year average RPI		259.4	265.0	274.9
Subtotal (2012/13 year average prices)	£m	5.6	(7.0)	0.2
FD allowance less actual tax (2012/13 year average prices)	**£m**	**(5.6)**	**7.0**	**(0.2)**

The adjustments shown above have been taken from note 7 of Part 4 of the APR for the reporting years 2016/17 and 2017/18. We did not include a tax reconciliation in the APR for 2015/16; in this case the adjustments have been taken from Dŵr Cymru Cyfyngedig's statutory accounts.

APPENDIX I: FINANCIAL FLOWS (continued)

F4 – Variance in corporation tax (continued)

FD allowance less actual tax is the difference between the level of corporation tax allowed in the Final Determination and actual corporation tax. The guidance states that we should deduct from the Determination allowance *"the tax payable at the standard rate of corporation tax of the profit/(loss) on appointed activities before fair value adjustments, plus or minus any adjustment for accelerated or deferred capital allowances, plus or minus any amounts for prior year adjustments."* We have reflected this guidance in the table above.

Compared to a corporation tax allowance of £nil in the PR14 Final Determination, the table reports an adverse variance in 2015-16 (our tax charge was higher than the allowance), a positive variance in 2016-17 (the calculation generates a tax credit on actual results) and a broadly neutral result in 2017-18 (and, indeed, on average for the three years).

Note that we have not reflected certain items below which were excluded from the guidance. While the overall impact of these is relatively small, we have included them in the list below for completeness and transparency.

The adjusted values above do not equal the tax credit or charge for the report year in the APR; these reconcile as follows (source as noted above):

		2015/16	2016/17	2017/18
Reconciliation to actual charge per the APR				
Difference per above	£m	6.0	(7.6)	0.3
Expenses not deductible for tax purposes	£m	-	0.1	0.1
Tax on R&D credit	£m	0.2	-	-
Non-taxable dividend income	£m	-	(0.6)	-
Non-taxable IFRIC 18 income	£m	-	(0.9)	(1.0)
Other timing differences - general provisions	£m	-	(1.1)	(0.4)
Other permanent differences	£m	(6.3)		
Tax losses created	£m	-	8.8	-
Surrender of losses re energy efficient capex	£m	-	0.1	-
Total current tax charge/(credit) (Table 1A)	**£m**	**(0.1)**	**(1.2)**	**(1.0)**

APPENDIX I: FINANCIAL FLOWS (continued)

F5 – Group relief

Guidance: *The amount of group relief utilised in assessing the amount of corporation tax payable minus any amounts paid by way of compensation for the transfer from the parent or affiliated undertaking.*

The only input cell in F5 is a value in Column C in the £ section. No group relief has been utilised during the reporting period.

		2015/16	2016/17	2017/18
Group relief	**£m**	**-**	**-**	**-**

F6 – Cost of debt (adjusted for hedging instruments)

Guidance: *The sum of F6a minus F7.*

The only input cells in F6 are values in Columns B and C in the £ section. We have calculated the Column B input as the sum of F6a minus F7, and the Column C input as the sum of F6b minus F7.

		2015/16	2016/17	2017/18
Notional				
F6a	£m	(7.4)	12.1	(9.3)
F7	£m	14.6	18.8	25.6
Cost of debt (adjusted for hedging instruments)	**£m**	**7.2**	**30.9**	**16.3**

		2015/16	2016/17	2017/18
Actual				
F6a	£m	(7.1)	11.0	(8.4)
F7	£m	14.6	18.8	25.6
Cost of debt (adjusted for hedging instruments)	**£m**	**7.5**	**29.9**	**17.2**

APPENDIX I: FINANCIAL FLOWS (continued)

F6 – Cost of debt (adjusted for hedging instruments) (continued)

Our cost of debt, excluding the impact of hedging instruments, is slightly lower than the allowance in Ofwat's PR14 Final Determination. While our hedges provide stability within the regulatory framework, our overall cost of debt including these is higher than allowed at PR14.

As can be seen from F6a and F6b, our performance on an actual basis is slightly worse than compared to the notional company as a result of our lower level of gearing.

We outperform the allowance in 2016/17 as a result of timing differences between actual average RPI inflation and the indices used to calculate indexation on our index-linked debt (a lag of three to nine months, depending on the instrument).

F6a – Cost of debt (unadjusted for hedging instruments) – Notional equity

Guidance: *Impact of the actual cost of debt compared to the allowed cost of debt in the Final Determination. Calculated by:*
a) taking net actual interest paid (interest paid on loans, borrowings, finance leases and adjustments associated with indexation for inflation less any interest received on cash and short term deposits) as reported in the P&L account)
b) dividend by the average net debt (using the opening and closing balances, for the reporting period, unless the company considers that a weighted average is more accurate in which case a narrative explanation must be provided)
c) Less;

- *movement in RPI for the relevant period, and*
- *allowed cost of debt in the Final Determination (in real terms)*

d) multiplying c) by the average RCV for the period

e) multiplying d) by the notional gearing ratio (62.5%)

f) adjusted for Corporation Tax (at standard rate)

There is no F6a in the table, therefore this calculation has been used in determining the value to enter into F6 - see commentary above.

APPENDIX I: FINANCIAL FLOWS (continued)

F6a – Cost of debt (unadjusted for hedging instruments) – Notional equity (continued)

Note that we have not included "other interest income/(expense)" from Table 1A in the net actual interest **paid** total, as this is a non-cash item relating to the defined benefit pension scheme service charge under IAS 19. Opening net debt for 2015/16 has been taken from Note 5 to the current cost financial statements in the 2014/15 regulatory accounts.

		2015/16	2016/17	2017/18
a)				
Interest expense (Table 1A)	£m	133.2	154.5	195.0
Interest income (Table 1A)	£m	(5.4)	(3.4)	(3.7)
Net interest paid		127.8	151.1	191.3
b)				
Opening net debt (Table 1E)	£m	2,884	2,841	2,942
Closing net debt (Table 1E)	£m	2,841	2,942	3,120
Average net debt	£m	2,863	2,892	3,031
Interest paid divided by average net debt	£m	4.46%	5.22%	6.31%
c)				
Movement in RPI for the period:				
RPI at preceding 31 March (2015/16/17)		257.1	261.1	269.3
RPI at closing 31 March (2016/17/18)		261.1	269.3	278.3
Movement		1.56%	3.14%	3.34%
Allowed cost of debt (see F3 commentary)		2.59%	2.59%	2.59%
Interest paid/net debt, less RPI movement and CoD		(0.32%)	0.51%	(0.38%)

APPENDIX I: FINANCIAL FLOWS (continued)

F6a – Cost of debt (unadjusted for hedging instruments) – Notional equity (continued)

		2015/16	2016/17	2017/18
d)				
Average RCV for the period (2012/13 prices, see F2 commentary	£m	4,670	4,779	4,854
c) multiplied by average RCV	£m	(14.9)	24.2	(18.4)
e)				
Notional gearing ratio		62.50%	62.50%	62.50%
d) multiplied by notional gearing	£m	(9.3)	15.1	(11.5)
f)				
Standard rate of corporation tax		20.00%	20.00%	20.00%
e) adjusted for corporation tax		**(7.4)**	**12.1**	**(9.3)**

The above table shows that, on a notional company basis, our overall average cost of debt is slightly higher than the PR14 Final Determination allowance; see also commentary to Line F6.

F6b – Cost of debt (unadjusted for hedging instruments) – Actual equity

Guidance: *Impact of the actual cost of debt compared to the allowed cost of debt in the Final Determination. Calculated by:*

a) taking net actual interest paid (interest paid on loans, borrowings, finance leases and adjustments associated with indexation for inflation less any interest received on cash and short term deposits) as reported in the P&L account)

b) dividend by the average net debt (using the opening and closing balances, for the reporting period, unless the company considers that a weighted average is more accurate in which case a narrative explanation must be provided)

APPENDIX I: FINANCIAL FLOWS (continued)

F6b – Cost of debt (unadjusted for hedging instruments) – Actual equity (continued)

c) Less;

- movement in RPI for the relevant period, and

- allowed cost of debt in the Final Determination (in real terms)

d) multiplying c) by the average RCV for the period

e) multiplying d) by the actual average gearing ratio (using the opening and closing balance for the reporting period, unless the company considers that a weighted average is more accurate in which case a narrative explanation must be provided)

f) Adjusted for Corporation Tax (at standard rate)

There is no F6b in the table, therefore this calculation has been used in determining the value to enter into F6 - see commentary above.

Note that we have not included "other interest income/(expense)" from Table 1A in the net actual interest **paid** total, as this is a non-cash item relating to the defined benefit pension scheme service charge under IAS 19.

Opening net debt and gearing for 2015/16 have been taken from Note 5 to the current cost financial statements in the 2014/15 regulatory accounts.

		2015/16	2016/17	2017/18
a)				
Interest expense (Table 1A)	£m	133.2	154.5	195.0
Interest income (Table 1A)	£m	(5.4)	(3.4)	(3.7)
Net interest paid		127.8	151.1	191.3
b)				
Opening net debt (Table 1E)	£m	2,884	2,841	2,942
Closing net debt (Table 1E)	£m	2,841	2,942	3,120
Average net debt	£m	2,863	2,892	3,031
Interest paid divided by average net debt	£m	4.46%	5.22%	6.31%

APPENDIX I: FINANCIAL FLOWS (continued)

F6b – Cost of debt (unadjusted for hedging instruments) – Actual equity (continued)

c)				
Movement in RPI for the period:				
RPI at preceding 31 March (2015/16/17)		257.1	261.1	269.3
RPI at closing 31 March (2016/17/18)		261.1	269.3	278.3
Movement		1.56%	3.14%	3.34%
Allowed cost of debt (see F3 commentary)		2.59%	2.59%	2.59%
Interest paid/net debt, less RPI movement and CoD		(0.32%)	0.51%	(0.38%)
		2015/16	**2016/17**	**2017/18**
d)				
Average RCV for the period (2012/13 prices, see F2 commentary	£m	4,670	4,779	4,854
c) multiplied by average RCV	£m	(14.9)	24.2	(18.4)
e)				
Opening gearing (Table 1E)		59.70%	57.01%	56.38%
Closing gearing (Table 1E)		57.01%	56.38%	57.05%
Actual average gearing		58.36%	56.70%	56.72%
d) multiplied by average RCV	£m	(8.9)	13.8	(10.4)
f)				
Standard rate of corporation tax		20.00%	20.00%	20.00%
e) adjusted for corporation tax		**(7.1)**	**11.0**	**(8.4)**

The above table shows that, on a notional company basis, our overall average cost of debt is slightly higher than the PR14 Final Determination allowance; see also commentary to Line F6.

APPENDIX I: FINANCIAL FLOWS (continued)

F7 – Hedging instruments

Guidance: *The impact of hedging instruments on the actual cost of debt. This figure is calculated by the company.*

The only input cells in F7 are values in Columns B and C in the £ section.

We have determined the £ impact of the hedging instruments as the report year cash cost (within interest payable) of those instruments. Note that we have excluded one instrument, a £100m swap held in our financing company, Dŵr Cymru (Financing) Limited, which swaps £100m of floating rate A6 bond liabilities to an RPI indexed rate. The reason for its exclusion is that the bond and related swap are on-lent to the appointee as a single instrument.

The swap payment data has been taken from our internal management accounts, adjusted for the standard rate of corporation tax for consistency with F6a and F6b.

		2015/16	2016/17	2017/18
Floating to RPI swaps	£m	(9.6)	(15.5)	(25.4)
Floating to fixed swap	£m	(9.8)	(10.0)	(10.1)
Total (outturn prices)	£m	(19.4)	(25.5)	(35.5)
2012/13 year average RPI		244.7	244.7	244.7
Report year average RPI		259.4	265.0	274.9
Total (2012/13 year average prices)	£m	(18.3)	(23.5)	(31.6)
Standard rate of corporation tax		20.00%	20.00%	19.00%
Total adjusted for corporation tax	**£m**	**(14.6)**	**(18.8)**	**(25.6)**

While providing effective economic hedges, our swap arrangements result in additional costs over the reporting period and drive a higher cost of debt; these have therefore been entered in Line F7 as a negative value.

APPENDIX I: FINANCIAL FLOWS (continued)

F9 – Totex out/(under) performance

Guidance: *The difference between the actual totex performance versus the amount allowed in the Final Determinations, for the reporting period, adjusted for the following:*
- Timing differences
- Company sharing ratio with customers (Note: no adjustment should be made for corporation tax)

The only input cell in F9 is a value in Column C in the £ section. We have taken this data from the reconciliations provided in Part 4 of the 2017/18 APR, Table 4B (further narrative commentary can be found there). The company did not commit to any sharing ratio with customers at PR14 and there was no allowance given for corporation tax in FD14, therefore both of these items have been left blank.

		2015/16	2016/17	2017/18
Actual totex (2012/13 prices)	£m	442.2	539.6	575.1
Final determination totex (2012/13 prices)	£m	536.3	520.8	512.3
Difference	£m	(94.1)	18.8	62.8
Adjustments for:				
Timing differences				
- Resources	£m	(10.3)	(1.9)	2.0
- Water Resource Management Plan	£m	(3.1)	(1.8)	(1.7)
- Water Treatment Works Maintenance	£m	4.3	(2.3)	5.6
- Safety and Acceptability of Water	£m	(11.3)	11.3	-
- Water Treatment Works Quality	£m	(2.2)	2.2	-
Capex Water	£m	**(22.6)**	**7.5**	**5.9**
- Continuous and Intermittent	£m	(22.8)	(14.2)	(9.5)
Capex Wastewater	£m	**(22.8)**	**(14.2)**	**(9.5)**
Company sharing ratio with customers	£m	-	-	-
Corporation tax (at standard rate)	£m	-	-	-
Adjusted difference	**£m**	**48.7**	**(25.5)**	**(66.4)**

APPENDIX I: FINANCIAL FLOWS (continued)

F9 – Totex out/(under) performance (continued)

This line shows the extent of our out/(under)performance against the PR14 FD allowance, excluding the impact of separately identifiable timing differences in delivery of the capital programme.

While we had a generally slow start to our investment programme at the beginning of AMP6, we have caught up with our regulated programme and our apparent overall underperformance of £43m includes some £71m of "Customer Distributions" expenditure, being additional investment for the benefit of customers.

F10 – ODI out/(under) performance

Guidance: *The ODI out/(under) performance as reported in Table 3A, for the in-period and notional rewards and penalties relating to the reporting period only.*

The only input cell in F10 is a value in Column C in the £ section. We have taken this data from Table 3A of the APR, where a full commentary can be found.

ODI in-period rewards/(penalties) - Table 3A		**2015/16**	**2016/17**	**2017/18**
A2 customer acceptability	£m	-	-	(1.9)
A3 reliability of supply	£m	-	-	(3.9)
B3 preventing pollution	£m	1.0	0.9	0.9
D3 properties flooded within the year	£m	-	1.9	1.5
Total out/(under) performance (outturn prices)		**1.0**	**2.8**	**(3.4)**
2012/13 year average RPI		244.7	244.7	244.7
Report year average RPI		259.4	265.0	274.9
ODI out/(under) performance (2012/13 year average prices)	**£m**	**0.9**	**2.6**	**(3.0)**

APPENDIX I: FINANCIAL FLOWS (continued)

F10 – ODI out/(under) performance

Our ODI profile reflects initial and sustained outperformance on pollution prevention and property flooding, however we expect to suffer penalties as a result of our performance in 2017-18 on customer acceptability and reliability of supply, mainly from the impact of Storm Emma and "the Beast from the East" weather in March. These broadly net to zero over the three-year reporting period.

F11 – Retail out/(underperformance)

Guidance: *The difference between the allowed retail operating costs, excluding margin, for Household and Non-Household in the Final Determination compared to the actual costs as reported in Table 2C - Operating cost analysis - retail. (Note: no adjustment should be made for corporation tax)*

The only input cell in F11 is a value in Column C in the £ section.

We have not deflated actual costs to 2012/13 prices as no inflation allowance was given for retail costs at FD14.

		2015/16	2016/17	2017/18
Allowed retail revenues (2012/13 prices)				
Household retail (including net margin)	£m	57.0	55.6	54.3
Non-household retail (including net margin)	£m	9.6	9.1	8.7
Total allowed retail revenues	£m	66.6	64.7	63.0

The household and non-household retail revenue allowances have been taken from the Ofwat publication: Setting price controls for 2015-20, Final price control determination notice: company-specific appendix - Dŵr Cymru; page 70.

APPENDIX I: FINANCIAL FLOWS (continued)

F11 – Retail out/(underperformance) (continued)

	2015/16	2016/17	2017/18
Allowed retail margins			
Household retail	1%	1%	1%
Non-household retail	1%	1%	1%

The allowed retail margin is stated in the Ofwat publication: Setting price controls for 2015-20, Final price control determination notice: policy chapter A7 - risk and reward [December 2014]; page 50.

		2015/16	2016/17	2017/18
Allowed retail operating costs				
Household retail	£m	56.4	55.0	53.8
Non-household retail	£m	9.5	9.0	8.6
Total allowed retail operating costs	£m	65.9	64.1	62.4
Actual reported costs				
Household retail	£m	62.1	57.4	58.0
Non-household retail	£m	6.7	5.8	6.9
Actual reported retail costs	£m	68.8	63.2	64.9
Retail underperformance	**£m**	**(2.9)**	**0.9**	**(2.5)**

We have struggled to meet a challenging PR14 Final Determination target, with ongoing expenditure required to ensure that we are able to achieve future cost reductions. In 2016-17 we secured a high value of charging orders against customer debt which reduced our bad debt charge significantly.

Commentary on factors affecting Retail performance was provided alongside Table 2C in our published APRs and extracts are replicated below:

APPENDIX I: FINANCIAL FLOWS (continued)

F11 – Retail out/(underperformance) (continued)

2015/16

Increased debt management activity as part of the retail transformation programme, in particular taking on additional resources to review old accounts and improving in-house litigation activities. The benefits of this activity are expected to be seen in 2016/17, with only a modest reduction in the bad debt charge in 2015/16.
Following the implementation of a new customer services system, RapidXtra, at the end of 2014/15 resources were required to manage an increase in contacts and early-life system issues which required manual workarounds until a longer-term fix was put in place. Most of these issues have now been resolved and as a result of this, together with a programme of process improvement, improvements in efficiency and customer experience are expected from the end of 2016/17.

2016/17

Increased recovery and debt management activity, in particular additional resources to review old accounts, enforce the Information about Non-owner Occupiers Regulations (known as the "Landlord Regulations") and investigate finalled accounts. At the same time the number of cases which are pursued and enforced through the legal process has grown by more than 50%. Whilst these activities are costly we have seen our bad debt charge fall from £30m (2014/15) to £23m.

Visiting customers who we believe to require financial assistance to pay their bill. Using the services of two external service providers we carried out in excess of 17,000 visits in 2016/17.

Additional resources taken on to address service issues facing customers, arising in part from the implementation of the company's new billing system in 2014/15. These remaining issues were closed down during the year, however these teams have been retained to proactively identify and resolve customer queries at an early stage.

2017/18

Whilst we have delivered improvements to our web services, that has seen online transactions grow by 30-40% across different services, we have invested in other service improvements (such as reducing email response times to 12 hours and the introduction of account management services for non-household customers) which require investment over and above the costs allowed in the FD.

APPENDIX I: FINANCIAL FLOWS (continued)

F11 – Retail out/(underperformance) (continued)

At the same time, whilst we have reduced the cost of our debt management activities in the year, and have introduced greater sanction for non-payment, our customers are over represented in low income groups with high levels of personal debt.

We support more than 100,000 customers with help in paying their bill. However identifying and engaging with these customers is a costly activity, and our Board took the decision to fund this service from reserves. These costs, which amount to £0.9m were not included in our allowed revenues at PR14.

Initiatives established in prior years have generated improvements collections performance in 17/18, these initiatives have resulted in a 5% reduction in doubtful debt year on year £23m 16/17 to £22m.

F13 – Total earnings

This line compares total allowed (shareholder) earnings in Ofwat's PR14 Final Determination (Column A) with actual earnings (Column C) calculated per the table guidance.

"Actual total earnings" are, on average over AMP6 to date, slightly lower than Ofwat's allowances. This is predominantly the impact of our discretionary "Customer Distributions" policy via which we return value to customers under our not-for-shareholder ownership model. However, it is also impacted by our lower gearing than Ofwat's notional company and our higher, overall, embedded cost of debt.

F14 – RCV growth

Guidance: *The movement in the average RPI for the period i.e. for 2016-17 it's the movement in the average RPI as reported in the Regulatory capital values spreadsheet.*

We note that this is inflation on the RCV (in 2012/13 prices) only and does not include any net growth through additions and RCV run-off.

Also note that we have corrected what appears to be an error in the 'average' table, where Column A in the £ section was linked into the net dividend value (Line 20, Column A, £ section). We have replaced this with the formula used in the individual year tables.

APPENDIX I: FINANCIAL FLOWS (continued)

F18 – Gross dividend

Guidance: *The total amount of dividends paid during the period for the appointee business only.*

The only input cell in F18 is a value in Column C in the £ section.

While we have completed this line in accordance with the guidance, these values do not represent payments to shareholders in the traditional sense. Our group structure is based on a not-for-shareholder business model and Glas Cymru Holdings Cyfyndgedig, the ultimate parent company, has no shareholders – rather, it has members who do not have a financial interest in the group and who are selected based on their ability to represent our customer base.

All retained earnings are used for the benefit of customers. In recent years we have used our retained earnings to being down the level of gearing to strengthen our credit ratings and reduce the cost of new debt. We believe that a gearing level of around 60% is optimal for our purposes and as such will return additional value to customers via appropriate mechanisms e.g. direct investment for the benefit of customers, or customer rebates (a method we used in AMP4).

In 2015/16, dividends totalling £320.5m were paid to the parent company, Dŵr Cymru (Holdings) Limited and used to repay an intercompany loan. In 2016/17; dividends totalling £30.2m were paid to the parent company, Dŵr Cymru (Holdings) Limited, to provide funding for commercial activities within the wider group, for which the profits will accrue to the group and therefore its customers. No dividends were paid during 2017/18.

		2015/16	2016/17	2017/18
Gross dividend (outturn prices)	£m	320.5	30.2	-
2012/13 year average RPI		244.7	244.7	244.7
Report year average RPI		259.4	265.0	274.9
Gross dividend (2012/13 year average prices)	**£m**	**302.3**	**27.9**	**-**

APPENDIX I: FINANCIAL FLOWS (continued)

F19 – Interest receivable on intercompany loans

Guidance: *The total amount of interest income received on intercompany loans.*

The only input cell in F19 is a value in Column C in the £ section. No interest was receivable on intercompany loans during the reporting period (agreed to note 3 in Part 4 of the APR for each reporting year).

		2015/16	2016/17	2017/18
Interest receivable on intercompany loans	**£m**	**-**	**-**	**-**

APPENDIX II: KPMG agreed-upon procedures report

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Our ref JL/515

06 July 2018

Dear Directors

Report of KPMG LLP to the Directors of Dwr Cymru Cyfyngedig ("the Company") of factual findings in relation to agreed upon procedures in relation to certain tables of Section Three and Section Four of the Annual Performance Report for the year ended 31 March 2018

In accordance with the terms of our engagement letter dated 05 July 2018, we have performed those procedures agreed with the directors of the Company and attached to this report relating to agreed upon procedures in relation to certain tables of Section Three and Section Four of the Annual Performance Report for the year ended 31 March 2018.

Our report has been prepared for the Company solely in connection with its consideration of the agreed upon procedures at that date. It has been released to the Company on the basis that our report shall not be copied, referred to or disclosed, in whole (save for the Company's own internal purposes) or in part, without our prior written consent.

Our report was designed to meet the agreed requirements of the Company determined by the Company's needs at the time. Our report should not therefore be regarded as suitable to be used or relied on by any party wishing to acquire rights against us other than the Company for any purpose or in any context. Any party other than the Company who obtains access to our report or a copy and chooses to rely on our report (or any part of it) will do so at its own risk. To the fullest extent permitted by law, KPMG LLP will accept no responsibility or liability in respect of our report to any other party.

Our engagement was undertaken in accordance with International Standard on Related Services 4400 *Engagements to Perform Agreed-upon Procedures Regarding Financial Information*. The procedures performed are as specified in the attachment to this report.

We report our findings below:

APPENDIX II: KPMG agreed-upon procedures report (continued)

KPMG LLP

Report of KPMG LLP to the Directors of Dwr Cymru Cyfyngedig ("the Company") of factual findings in relation to agreed upon procedures in relation to certain tables of Section Three and Section Four of the Annual Performance Report for the year ended 31 Mar
06 July 2018

- With respect to the procedures specified in the attachment to this report, we found no exceptions.

Because the above procedures do not constitute either an audit or a review in accordance with International Standards on Auditing (UK and Ireland) or International Standards on Review Engagements (UK and Ireland), we do not express any assurance on agreed upon procedures in relation to certain tables of Section Three and Section Four of the Annual Performance Report for the year ended 31 March 2018.

Had we been engaged to perform, and had performed, additional procedures, an audit or a review in accordance with International Standards on Auditing (UK and Ireland) or International Standards on Review Engagements (UK and Ireland), other matters might have come to our attention that would have been reported to you.

This report relates only to the matters specified above and does not extend to any statutory financial statements or the Annual Performance Report of the Company, taken as a whole.

This engagement is separate from the audit of the statutory financial statements and the Annual Performance Report of the Company and the report here relates only to the matters specified above and does not extend to either the Company's annual financial statements or Annual Performance Report taken as a whole.

As set out in our audit report on the statutory financial statements, that audit report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. The statutory audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in a statutory audit report and for no other purpose. In these circumstances, to the fullest extent permitted by law, we do not accept or assume responsibility for any other purpose or to any other person to whom our statutory audit report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Yours faithfully

KPMG LLP

KPMG LLP
Chartered Accountants