

Annual Performance Report 2018-19

Part 4 – Additional regulatory information





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4A – Non-financial information for the year ended 31 March 2019

	Unmeasured	Measured
Retail - household		
Number of void households (000s)	38.020	21.386
Per capita consumption (excluding supply pipe leakage) (l/h/d)	169.23	135.24
Wholesale - volume	Water MI/d	Wastewater MI/d
Bulk supply export	304.317	0.084
Bulk supply import	20.439	-
Distribution input	840.850	



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4B – Wholesale totex analysis for the year ended 31 March 2019

	Ref	Current year		Cumulative 2015-20 ¹	
		Water £m	Wastewater £m	Water £m	Wastewater £m
Actual totex	2B	359.696	355.689	1,250.952	1,197.193
Less: items excluded from the menu					
Third party costs	2B	10.368	1.014	44.468	1.389
Pension deficit recovery payments	2B	3.463	2.532	11.225	7.769
Other 'Rule book' adjustments		-	-	-	-
Total items excluded from the menu		13.831	3.546	55.693	9.158
Transition expenditure		-	-	0.751	1.485
Adjusted actual totex: outturn price base	4D, 4E	345.865	352.143	1,196.010	1,189.520
Adjusted actual totex: base year prices		298.701	304.123	1,076.917	1,071.564
Allowed totex based on final menu choice - base year prices		234.126	265.887	963.572	1,096.647

¹ Actual cumulative values have been reported in outturn prices.

Total difference between adjusted actual totex and allowed totex based on final menu choices at outturn price base

	Current year		Cumulative 2015-20	
	Water £m	Wastewater £m	Water £m	Wastewater £m
Opex	29.0	(9.9)	29.9	(41.0)
Opex IRE adjustment	59.0	29.6	156.5	88.9
Total adjusted opex	88.0	19.7	186.4	47.9
Capex	45.8	54.2	103.0	20.4
Capex IRE adjustment	(59.0)	(29.6)	(156.5)	(88.9)
Transition expenditure	-	-	(2.1)	(2.1)
Total capex	(13.2)	24.6	(55.6)	(70.6)
Total difference: outturn price base	74.8	44.3	130.8	(22.7)
Total difference: base year prices	64.6	38.2	113.4	(25.1)



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4B – Wholesale totex analysis for the year ended 31 March 2019 (continued)

Capex Water

	2015/16 £m	2016/17 £m	2017/18 £m	2018/19 £m	Cumulative £m
Reprofiling of the programme of works:					
Resources: our fish screen programme has now been completed, other than Prioress Mill which is due for completion in Year 1 of AMP7.	(10.3)	(1.9)	2.0	6.1	(4.1)
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)	0.2	(6.4)
WTW Maintenance Year 1 overspend was brought forward from future years.	4.3	(2.3)	5.6	(0.1)	7.5
Safety and Acceptability of Water, Distribution Mains Clusters and Trunk Mains: zonal study work recovered its position in Year 2 from Year 1 as studies have informed the programme of works.	(11.3)	11.3	-	-	-
WTW Quality: ground conditions at Bryn Cowlyd were resolved and the programme spend was recovered in Year 2.	(2.2)	2.2			-
Over/under spends on the programme:					
Resources: Increased costs are due to the delivery of a full upgrade at Prioress Mill Water Pump Station rather than partial upgrade, which was originally profiled to deliver in AMP7.	-	-	2.2	0.8	3.0
WTW Maintenance: overspend due to additional maintenance on water treatment works	-	-	-	2.1	2.1
Safety and Acceptability of Water, Distribution Mains Clusters and Trunk Mains: Year 1 studies have informed an increased programme of works, to meet the customer performance challenge for improved acceptability of water. A source-to-tap programme of work has addressed the root cause of acceptability issues at a zone level; the uplift from forecast spend is due to there being an increased number of pipe renewals rather than originally scoped cleansing, due to deteriorated asset condition.	-	2.4	21.4	7.4	31.2
WTW Quality: additional costs are being experienced at Bryn Cowlyd due to ground conditions, and at Tynywaun due to raw water quality requiring additional treatment than originally planned, to meet water quality standards.	-	4.0	4.1	5.7	13.8



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4B – Wholesale totex analysis for the year ended 31 March 2019 (continued)

	2015/16 £m	2016/17 £m	2017/18 £m	2018/19 £m	Cumulative £m
Impounding reservoirs and service reservoirs: changes to the Reservoirs Act required 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 (MIOM) and new requirements for draw down and spillways. The increased forecast spend is due to the programme being accelerated to deliver outputs of portfolio risk assessments and to smooth the peak in work expected during AMPs 7 and 8.	-	5.3	3.5	6.0	14.8
Leakage: additional spend in Years 3 and 4 has been due to the introduction of the convergence measure alignment for industry aligned reporting and continuation of increased work load to meet performance targets.	4.9	2.2	3.7	1.6	12.4
Abstractions: an abandonment of an abstraction was brought into the programme due to water quality failure.	-	1.2	1.0	(0.1)	2.1
Service reservoirs: increased storage capacity scheme in Hereford catchment. Forecast spends have reduced due to reduced land acquisition, efficiencies of working in conjunction with the Hereford Trunk mains project and elements of the scheme being moved for delivery into AMP7.	-	-	1.9	0.6	2.5
Network Ancillary Assets: increased spend on maintenance - Year 4 peak in over spend is attributed to managing the 2018 drought and other weather events in 2018.	-	5.2	4.3	11.2	20.7
Bulk meters, pressure release valve and air valves: spend has been delayed in order to support the additional spend on network ancillary assets	-	-	(2.7)	(1.6)	(4.3)
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. Additional spend in the programme relates to the development of a new visitor centre at our Llanishen reservoir in Cardiff.	-	-	7.4	3.4	10.8
Other	(0.3)	(3.7)	(3.8)	0.1	(7.7)
Total	(18.0)	24.1	48.9	43.4	98.4
Difference due to final determination menu	-	-	2.2	2.4	4.6
Total difference from final determination	(18.0)	24.1	51.1	45.8	103.0



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4B – Wholesale totex analysis for the year ended 31 March 2019

Capex wastewater

	2015/16 £m	2016/17 £m	2017/18 £m	2018/19 £m	Cumulative £m
Reprofiling of the programme of works:					
Continuous and Intermittent: a number of water course discharge schemes are being discussed with NRW to define a more effective solution. The reprioritised programme of works is in line with Water Framework Directive delivery deadline of 2020 and will be substantially complete by the end of AMP6.	(22.8)	(14.2)	(9.5)	10.2	(36.3)
Over/underspend against the programme					
Sludge Schemes: Five Fords and Treborth Sludge schemes were delayed in the early years of the AMP whilst the North and South Wales Sludge Strategies were being agreed. The schemes are now in delivery.	(7.1)	(1.5)	8.6	12.7	12.7
Sludge schemes: implementation of South Wales Sludge Strategy.	-	-	9.6	10.4	20.0
Sewer network maintenance: additional programme costs in Years 2, 3 and 4 have been brought forward from future years.	-	1.7	2.2	2.4	6.3
Continuous and intermittent discharges, network intermittent discharge and outfalls: the programme of works has been brought forward for delivery in earlier years than the original programme to meet regulatory environmental commitments and additional expenditure for the Loughor estuary L2 driver.	-	8.6	11.9	18.3	38.8
WWTW Maintenance: funds have been reallocated to support the North Wales Sludge Strategy.	-	-	(1.0)	3.8	2.8
Private sewers and pumping stations assets transferred are generally in better condition than anticipated and less remedial work has been required. 100% of the eligible private pumping station asset base and 9% of the mapped transferred sewers and lateral drains have been surveyed at March 2019. The underspend is offset by additional maintenance and the North Wales Sludge Strategy.	(9.9)	(3.0)	0.7	0.2	(12.0)
Sewage pumping stations: overspend on Cardiff Western District pumping station power resilience which was not previously in the programme. The reduction in forecast overspend from last year's Reconciliation Rule book is due to not progressing the pumping station refurbishment at the site.	-	-	0.3	2.2	2.5
Wastewater element of cross-service: includes additional costs for IT systems upgrade (including automation telemetry and control), energy saving and generation schemes and transport upgrades.	-	-	12.8	7.4	20.2
Other	(4.0)	2.4	(5.5)	(2.0)	(9.1)
Total	(43.8)	(6.0)	30.1	65.6	45.9
Difference due to final determination menu.	-	-	(14.1)	(11.4)	(25.5)
Total difference to final determination	(43.8)	(6.0)	16.0	54.2	20.4



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4B – Wholesale totex analysis for the year ended 31 March 2019

Opex water

	2015/16 £m	2016/17 £m	2017/18 £m	2018/19 £m	Cum £m
Renegotiation of the NRW service charge	(1.3)	(1.6)	(1.8)	(2.0)	(6.7)
Rates refund received after challenging the 2005 water network assessment	(20.0)	-	-	-	(20.0)
Net power difference	(2.2)	(1.7)	(3.3)	1.4	(5.8)
Reduced insurance cost	(1.7)	(0.9)	(2.6)	(1.5)	(6.7)
Release of provision regarding billing dispute	-	(2.1)	-	(0.8)	(2.9)
Cumulo rates increase	-	0.9	-	-	0.9
Water connections increase	-	1.5	2.0	2.1	5.6
Transport fleet savings not yet achieved	-	1.6	1.1	0.2	2.9
Increase in minor works contract due to increased rates	-	2.3	1.8	2.3	6.4
IT increase relating to transitional costs	-	3.2	-	-	3.2
Water recharged to waste sites	-	-	(1.9)	(2.0)	(3.9)
Atypical costs: adverse weather	-	-	7.3	15.3	22.6
Direct labour increase	-	-	6.7	8.7	15.4
Other net cost pressures	3.3	6.7	3.6	5.3	18.9
Total opex difference	(21.9)	9.9	12.9	29.0	29.9

Opex wastewater

	2015/16 £m	2016/17 £m	2017/18 £m	2018/19 £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)	(9.9)	(28.0)
Lower chemical usage in relation to anticipated opex from capital schemes	(1.7)	(2.4)	(1.6)	(1.1)	(6.8)
Savings from insourcing	(1.0)	-	-	-	(1.0)
Rates refund	(4.5)	-	(2.0)	(5.4)	(11.9)
Reduced insurance cost	(1.7)	(0.9)	(2.6)	(1.6)	(6.8)
Net power difference: reduced energy usage partially offset by lower income due to delay in capital scheme		(3.8)	(4.0)	(2.0)	(9.8)
IT increase relating to transitional costs	-	2.6	-	-	2.6
Sludge disposal increase	-	0.9	0.4	1.3	2.6
Water recharged to waste sites	-	-	1.9	2.0	3.9
Water sludge recharge to waste	-	-	(0.4)	(0.4)	(0.8)
Atypical costs: adverse weather	-	-	-	1.5	1.5
Other net cost (efficiencies)/pressures	(2.2)	4.1	5.9	5.7	13.5
Total opex difference	(14.1)	(7.6)	(9.4)	(9.9)	(41.0)



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4C – Impact of AMP performance to date on RCV for the year ended 31 March 2019

	Water £m	Wastewater £m
Cumulative totex over/underspend so far in the price control period	132.069	(29.225)
Customer share of cumulative totex over/underspend	66.153	(14.440)
RCV element of cumulative totex over/underspend	42.001	(16.488)
Adjustment for ODI outperformance payment or underperformance payment	-	-
RCV determined at FD at 31 March	1,802.912	3,868.615
Projected 'shadow' RCV	1,844.913	3,852.127

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” lines 202 and 203 of the Totex Menu Model from the PR14 Reconciliation Rulebook. These figures are presented at March 2019 prices.

<i>Base year prices</i>	Water £m	Wastewater £m	Total £m
Totex for input to PAYG	963.572	1,096.647	2,060.219
Adjusted actual totex for input to PAYG	1,076.917	1,071.564	2,148.481
Difference	113.345	(25.083)	88.262
Reconciliation rulebook adjustments	3.993	(8.200)	(4.207)
Totex adjustment from rulebook	117.338	(33.283)	84.055
PAYG rate	69.28%	57.49%	
RCV element of totex underspend (Difference x (1 – PAYG))	36.046	(14.150)	21.896
RCV element of totex underspend (March 2019 prices)	42.001	(16.488)	25.513



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4D – Wholesale totex analysis for the year ended 31 March 2019 – water

	Water Resources			Network+		Treated water	Total
	Abstraction licenses £m	Raw water abstraction £m	Raw water transport £m	Raw water storage £m	Water treatment £m	distribution £m	£m
Operating expenditure							
Power	-	4.973	3.294	0.065	7.300	11.931	27.563
Income treated as negative expenditure	(0.100)	(3.422)	(0.094)	(0.020)	(1.569)	(1.254)	(6.459)
Abstraction charges/discharge consents	8.652	0.002	-	-	0.280	-	8.934
Bulk supply	0.025	0.074	0.041	-	0.167	0.517	0.824
Other operating expenditure – renewals expensed in year (infra)	-	9.469	0.073	-	-	49.420	58.962
Other operating expenditure – renewals expensed in year (non-infra)	-	-	-	-	-	-	-
Other operating expenditure excluding renewals	0.033	7.593	1.133	0.775	32.879	64.939	107.352
Local authority rates and Cumulo rates	-	0.790	0.299	0.061	1.482	12.850	15.482
Total operating expenditure excluding third party services	8.610	19.479	4.746	0.881	40.539	138.403	212.658
Third party services	1.385	2.558	0.502	0.078	0.320	1.210	6.053
Total operating expenditure	9.995	22.037	5.248	0.959	40.859	139.613	218.711
Capital Expenditure							
Maintaining the long term capability of the assets – infra	-	2.399	(0.009)	-	-	16.565	18.955
Maintaining the long term capability of the assets – non-infra	-	4.451	0.263	0.547	33.786	27.008	66.055
Other capital expenditure - infra	-	13.364	0.112	-	-	20.701	34.177
Other capital expenditure – non-infra	-	16.270	-	0.002	8.287	4.021	28.580
Infrastructure network reinforcement	-	-	-	-	-	0.923	0.923
Total gross capital expenditure (excluding third party)	-	36.484	0.366	0.549	42.073	69.218	148.690
Third party services	-	3.833	0.009	0.008	0.282	0.183	4.315
Total gross capital expenditure	-	40.317	0.375	0.557	42.355	69.401	153.005
Grants and contributions	-	3.442	-	-	-	12.041	15.483
Totex	9.995	58.912	5.623	1.516	83.214	196.973	356.233
Cash expenditure – pension deficit recovery payments	0.003	0.197	0.033	0.034	1.332	1.864	3.463
Totex including cash items	9.998	59.109	5.656	1.550	84.546	198.837	359.696



4D – Wholesale totex analysis for the year ended 31 March 2019 – 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 (MI)	1,682,460.830					
Volume abstracted (MI)		513,798.410				
Volume transported (MI)			411,257.738			
Average volume stored (MI)				278.364		
Distribution input volume (MI)					304,597.758	
Distribution input volume (MI)						306,910.223
Unit cost (£/MI)	5.941	42.890	12.761	3,445.129	134.141	454.898
Population (000s)	3,057.767	3,057.767	3,057.767	3,057.767	3,057.767	3,057.767
Unit cost (£/pop)	3.269	7.207	1.716	0.314	13.362	45.658



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4E – Wholesale totex analysis for the year ended 31 March 2019 – wastewater

	Network+ sewage collection			Network+ sewage treatment		Sludge			Total
	Foul	Surface	Highway	Sewage	Imported	Sludge	Sludge	Sludge	
	£m	water	drainage	treatment	sludge liquor	transport	treatment	disposal	£m
		drainage		and disposal	treatment				
		£m	£m	£m	£m	£m	£m	£m	£m
Operating expenditure									
Power	3.512	1.153	0.577	18.455	2.618	0.789	0.910	0.002	28.016
Income treated as negative expenditure	-	-	-	(0.624)	(0.053)	-	(2.481)	(0.004)	(3.162)
Discharge consents	1.064	0.349	0.175	3.333	0.137	-	-	-	5.058
Other operating expenditure – renewals expensed in year (infra)	17.197	7.982	4.435	-	-	-	-	-	29.614
Other operating expenditure – renewals expensed in year (non-infra)	-	-	-	-	-	-	-	-	-
Other operating expenditure excluding renewals	18.392	4.589	1.611	28.664	2.158	5.153	9.354	5.265	75.186
Local authority rates and cumulo rates	0.062	0.015	0.005	6.455	0.001	-	0.334	-	6.872
Total operating expenditure excluding third party services	40.227	14.088	6.803	56.283	4.861	5.942	8.117	5.263	141.584
Third party services	0.491	0.122	0.043	-	-	-	-	-	0.656
Total operating expenditure	40.718	14.210	6.846	56.283	4.861	5.942	8.117	5.263	142.240
Capital Expenditure									
Maintaining the long term capability of the assets – infra	6.931	3.250	1.805	-	-	-	-	-	11.986
Maintaining the long term capability of the assets – non-infra	11.603	5.252	2.922	62.702	0.158	0.721	51.629	0.647	135.634
Other capital expenditure - infra	15.469	13.619	7.362	-	-	-	-	-	36.450
Other capital expenditure – non-infra	0.771	0.663	0.358	27.632	-	0.002	4.039	0.002	33.467
Infrastructure network reinforcement	0.691	0.594	0.321	-	-	-	-	-	1.606
Total gross capital expenditure (excluding third party services)	35.465	23.378	12.768	90.334	0.158	0.723	55.668	0.649	219.143
Third party services	0.358	-	-	-	-	-	-	-	0.358
Total gross capital expenditure	35.823	23.378	12.768	90.334	0.158	0.723	55.668	0.649	219.501
Grants and contributions	3.882	2.658	1.440	0.604	-	-	-	-	8.584
Totex	72.659	34.930	18.174	146.013	5.019	6.665	63.785	5.912	353.157
Cash expenditure – pension deficit recovery payments	0.648	0.162	0.057	1.229	0.036	0.067	0.266	0.067	2.532
Totex including cash items	73.307	35.092	18.231	147.242	5.055	6.732	64.051	5.979	355.689

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4E – Wholesale totex analysis for the year ended 31 March 2019 – wastewater (continued)

	Network+ sewage collection			Network+ sewage treatment			Sludge	
	Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Imported sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal
Unit cost information (operating expenditure)								
Volume collected (MI)	211,851.727							
Volume collected (MI)		51,041.034						
Volume collected (MI)			28,015.747					
Biochemical oxygen demand (BOD) (tonnes)				89,928.680				
Biochemical oxygen demand (BOD) (tonnes)					5,138.830			
Volume transported (m³)						673,062.291		
Dried solid mass treated (ttds)							75.164	
Dried solid mass disposed (ttds)								50.604
Unit cost (£/unit)	192.200	278.403	244.363	625.863	945.935	8.828	107,990.527	104,003.636
Population (000s)	3,074.519	3,074.519	3,074.519	3,074.519	3,074.519	3,074.519	3,074.519	3,074.519
Unit cost (£/pop)	13.244	4.622	2.227	18.306	1.581	1.933	2.640	1.712

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4F – Cost analysis for the year ended 31 March 2019 – 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	0.336	0.311	5.497	6.144	0.265	0.757	6.195	7.217	13.361
Debt management	0.228	0.211	3.734	4.173	0.093	0.266	2.182	2.541	6.714
Doubtful debts	0.596	0.552	9.766	10.914	0.337	0.965	7.897	9.199	20.113
Meter reading	-	-	-	-	0.067	0.192	1.569	1.828	1.828
Other operating expenditure	0.255	0.236	4.181	4.672	0.146	0.416	3.419	3.981	8.653
Total operating expenditure excluding third party services	1.415	1.310	23.178	25.903	0.908	2.596	21.262	24.766	50.669
Third party services operating expenditure	-	-	-	-	-	-	-	-	-
Total operating expenditure	1.415	1.310	23.178	25.903	0.908	2.596	21.262	24.766	50.669
Depreciation - tangible fixed assets									
- on assets existing at 31 March 2015	0.013	0.012	0.207	0.232	0.007	0.020	0.163	0.190	0.422
- on assets acquired since 1 April 2015	0.004	0.004	0.065	0.073	0.002	0.006	0.051	0.059	0.132
Amortisation - intangible fixed assets									
- on assets existing at 31 March 2015	0.069	0.064	1.135	1.268	0.038	0.110	0.901	1.049	2.317
- on assets acquired since 1 April 2015	0.082	0.076	1.343	1.501	0.045	0.130	1.064	1.239	2.740
Total operating costs	1.583	1.466	25.928	28.977	1.000	2.862	23.441	27.303	56.280
Capital expenditure¹	0.234	0.217	3.834	4.285	0.130	0.370	3.040	3.540	7.825

¹ Capital expenditure consists of £0.102m tangible and £7.723m intangible additions.

Other operating expenditure includes the net retail expenditure for the following retail activities which are part-funded by wholesale:

	£m
Household	
Demand-side water efficiency - gross expenditure	0.076
Demand-side water efficiency - expenditure funded by wholesale	-
Demand-side water efficiency - net retail expenditure	0.076
Customer-side leak repairs - gross expenditure	2.672
Customer-side leak repairs - expenditure funded by wholesale	2.672
Customer-side leak repairs - net retail expenditure	-



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4G – Wholesale current cost financial performance for the year ended 31 March 2019

	Ref	Water £m	Wastewater £m	Total £m
Income statement				
Revenue	2A	318.963	397.602	716.565
Operating expenditure	2A	(218.711)	(142.240)	(360.951)
Capital maintenance charges		(91.344)	(115.581)	(206.925)
Other operating income	2A	0.105	0.129	0.234
Current cost operating profit		9.013	139.910	148.923
Other income		8.931	7.065	15.996
Interest income		1.485	3.100	4.585
Interest expense		(60.632)	(126.593)	(187.225)
Other interest expense		(0.660)	(1.378)	(2.038)
Current cost gains/(losses) before tax and fair value movements		(41.863)	22.104	(19.759)
Fair value gains/(losses) on financial instruments		(5.642)	(11.780)	(17.422)
Current cost profit/(loss) before tax		(47.505)	10.324	(37.181)



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4H – Financial metrics for the year ended 31 March 2019

	Ref	Units	Current year	AMP to date
Financial indicators				
Net debt		£m	3,175.890	
Regulated equity		£m	2,495.637	
Regulated gearing		%	56.00%	
Post-tax return on regulated equity		%	(4.43%)	
RORE (return on regulated equity)	Note 6 (Page 96)	%	3.18%	4.36%
Dividend yield ²		%	-	
Retail profit margin - household		%	(1.31%)	
- non-household		%	1.35%	
Credit rating ¹			A negative/A2 negative/A stable	
Return on RCV		%	1.38%	
Dividend cover ²			-	
Funds from operations (FFO)		£m	230.044	
Interest cover (cash)		Ratio	2.80	
Adjusted interest cover (cash)		Ratio	1.62	
FFO/Debt		Ratio	0.07	
Effective tax rate		%	0.36%	
RCF		£m	230.044	
RCF/capex		Ratio	0.57	
Revenues and earnings				
Revenue (actual)		£m	755.646	
EBITDA (actual)		£m	338.715	
Movement in RORE				
Base return		%	5.60%	5.60%
Totex out/(under) performance		%	(2.14%)	(0.72%)
Retail cost out/(under) performance		%	(0.24%)	(0.23%)
ODI out/(under) performance		%	(0.01%)	0.00%
Financing out/(under) performance		%	(0.03%)	(0.29%)
Regulatory return for the year		%	3.18%	4.36%

¹S&P/Moody's/Fitch at 31 March 2019.

²There were no dividends declared or paid in the year.



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4H – Financial metrics for the year ended 31 March 2019 (continued)

	Ref	Units	Current year
Borrowings			
Proportion of borrowings which are:			
- fixed rate	1E	%	32.13%
- floating rate	1E	%	6.05%
- index-linked	1E	%	61.82%
			<hr/> 100.00%
Proportion of borrowings which are:			
- due within one year or less		%	1.49%
- due in more than one year but no more than two years		%	1.76%
- due in more than two years but not more than five years		%	13.98%
- due in more than five years but not more than 20 years		%	76.78%
- due in more than 20 years		%	5.99%
			<hr/> 100.00%



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4I – Financial derivatives for the year ended 31 March 2019

As at 31 March 2019 Derivative type	Nominal value by maturity (net)			Total value		Total accretion £m	Interest rate (weighted average for 12 months to 31 March 2019)	
	One to two years £m	Two to five years £m	Over five years £m	Nominal value (net) £m	Mark to market £m		Payable %	Receivable %
Interest rate swap (sterling)								
Floating to fixed rate	-	-	(192.000)	(192.000)	(91.236)	-	5.67%	0.71%
Floating from fixed rate	-	-	-	-	-	-	-	-
Floating to index-linked	-	(50.022)	(331.896)	(381.918)	(196.552)	-	4.78%	0.96%
Floating from index-linked	-	-	-	-	-	-	-	-
Fixed to index-linked	-	-	-	-	-	-	-	-
Fixed from index-linked	-	-	-	-	-	-	-	-
Total	-	(50.022)	(523.896)	(573.918)	(287.788)	-		
Other financial derivatives¹	(30.145)	(9.326)	-	(39.471)	4.025	-	-	-
Total financial derivatives	(30.145)	(59.348)	(523.896)	(613.389)	(283.763)	-		

¹ Other financial derivatives are power hedges; these are operating obligations rather than financing obligations, however they have been included so as to agree back to total financial derivatives per Table 1C.

The Company holds no financial derivatives other than those reported in the table above.

Reconciliation to Table 1C

	£m
Non-current assets	
Financial instruments	3.779
Current assets	
Financial instruments	1.069
Current liabilities	
Financial instruments	(26.797)
Non-current liabilities	
Financial instruments	(261.814)
Total financial instruments	(283.763)



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4J – Atypical expenditure by business unit – wholesale water for the year ended 31 March 2019

	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 (excluding atypicals)							
Power	-	4.973	3.294	0.065	6.000	11.450	25.782
Income treated as negative expenditure	(0.100)	(3.422)	(0.094)	(0.020)	(1.569)	(1.254)	(6.459)
Abstraction charges/discharge consents	8.652	0.002	-	-	0.280	-	8.934
Bulk supply	0.025	0.074	0.041	-	0.167	0.517	0.824
Other operating expenditure – renewals expensed in year (infra)	-	9.469	0.073	-	-	44.735	54.277
Other operating expenditure – renewals expensed in year (non-infra)	-	-	-	-	-	-	-
Other operating expenditure – excluding renewals	0.033	7.593	1.133	0.775	32.879	51.425	93.838
Local authority and Cumulo rates	-	0.790	0.299	0.061	1.482	12.850	15.482
Total operating expenditure excluding third party services	8.610	19.479	4.746	0.881	39.239	119.723	192.678
Third party services	1.385	3.327	0.502	0.078	0.320	1.210	6.822
Total operating expenditure	9.995	22.806	5.248	0.959	39.559	120.933	199.500
Capital expenditure (excluding atypicals)							
Maintaining the long term capability of the assets – infra	-	2.399	(0.009)	-	-	16.565	18.955
Maintaining the long term capability of the assets – non-infra	-	4.451	0.263	0.547	33.786	27.008	66.055
Other capital expenditure – infra	-	13.364	0.112	-	-	20.701	34.177
Other capital expenditure – non-infra	-	16.270	-	0.002	8.287	4.021	28.580
Infrastructure network reinforcement	-	-	-	-	-	0.923	0.923
Total gross capital expenditure excluding third party services	-	36.484	0.366	0.549	42.073	69.218	148.690
Third party services	-	3.833	0.009	0.008	0.282	0.183	4.315
Total gross capital expenditure	-	40.317	0.375	0.557	42.355	69.401	153.005
Grants and contributions	-	3.442	-	-	-	12.041	15.483
Totex	9.995	59.681	5.623	1.516	81.914	178.293	337.022
Cash expenditure (excluding atypicals)							
Pension deficit recovery payments	0.003	0.197	0.033	0.034	1.332	1.864	3.463
Totex including cash items	9.998	59.878	5.656	1.550	83.246	180.157	340.485
Atypical expenditure – severe weather (<i>see note 1</i>)	-	-	-	-	1.300	18.680	19.980
Atypical expenditure – release of provision (<i>see note 2</i>)	-	(0.769)	-	-	-	-	(0.769)
Total expenditure	9.998	59.109	5.656	1.550	84.546	198.837	359.696



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4J – Atypical expenditure by business unit – wholesale water for the year ended 31 March 2019 (continued)

Notes

- 1) Record-breaking warm and dry weather during summer 2018 resulted in increased demand from our customers. June was the hottest on record, with only a quarter of the long-term average rainfall, and conditions in July were similar. Water teams faced significant challenges and worked day and night to ensure that supplies were maintained.
 - One billion litres of water per day were put into the network to meet the exceptional demand (25% more than normal); 62 water treatment works were manned 24 hours a day with 35 tankers in use.
 - Gold and silver incident centres were set up to ensure we kept on top of demand and moved water around as necessary.
- 2) Release of provision regarding pricing dispute on bulk supply.



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4K – Atypical expenditure by business unit – wholesale wastewater for the year ended 31 March 2019

	Network+ sewage collection			Network+ sewage treatment		Sludge			Total
	Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge Disposal	
	£m	£m	£m	£m	£m	£m			£m
Operating expenditure (excluding atypicals)									
Power	3.512	1.153	0.577	17.468	2.618	0.789	0.910	0.002	27.029
Income treated as negative expenditure	-	-	-	(0.624)	(0.053)	-	(2.481)	(0.004)	(3.162)
Discharge consents	1.064	0.349	0.175	3.333	0.137	-	-	-	5.058
Other operating expenditure									
- Renewals expensed in year (infrastructure)	17.197	7.982	4.435	-	-	-	-	-	29.614
- Renewals expensed in year (non-Infrastructure)	-	-	-	-	-	-	-	-	-
- Other operating expenditure excluding renewals	18.392	4.589	1.611	28.472	2.158	5.153	9.019	5.265	74.659
Local authority and Cumulo rates	0.062	0.015	0.005	8.346	0.001	-	0.443	-	8.872
Total operating expenditure (excluding third party services)	40.227	14.088	6.803	56.995	4.861	5.942	7.891	5.263	142.070
Third party services	0.491	0.122	0.043	-	-	-	-	-	0.656
Total operating expenditure	40.718	14.210	6.846	56.995	4.861	5.942	7.891	5.263	142.726
Capital expenditure (excluding atypicals)									
Maintaining the long term capability of the asset – infra	6.931	3.250	1.805	-	-	-	-	-	11.986
Maintaining the long term capability of the asset – non-infra	11.603	5.252	2.922	62.702	0.158	0.721	51.629	0.647	135.634
Other capital expenditure - infra	15.469	13.619	7.362	-	-	-	-	-	36.450
Other capital expenditure - non-infra	0.771	0.663	0.358	27.632	-	0.002	4.039	0.002	33.467
Infrastructure network reinforcement	0.691	0.594	0.321	-	-	-	-	-	1.606
Total gross capital expenditure excluding third party services	35.465	23.378	12.768	90.334	0.158	0.723	55.668	0.649	219.143
Third party services	0.358	-	-	-	-	-	-	-	0.358
Total gross capital expenditure	35.823	23.378	12.768	90.334	0.158	0.723	55.668	0.649	219.501
Grants and contributions	3.882	2.658	1.440	0.604	-	-	-	-	8.584
Totex	72.659	34.930	18.174	146.725	5.019	6.665	63.559	5.912	353.643
Cash expenditure (excluding atypicals)									
Pension deficit recovery payments	0.648	0.162	0.057	1.229	0.036	0.067	0.266	0.067	2.532
Totex including cash items	73.307	35.092	18.231	147.954	5.055	6.732	63.825	5.979	356.175
Atypical expenditure – adverse weather costs ¹	-	-	-	0.579	-	-	0.335	-	0.914
Atypical expenditure – adverse weather costs ²	-	-	-	0.600	-	-	-	-	0.600
Atypical expenditure – rates rebate ³	-	-	-	(1.891)	-	-	(0.109)	-	(2.000)
Total expenditure	73.307	35.092	18.231	147.242	5.055	6.732	64.051	5.979	355.689



4K – Atypical expenditure by business unit – wholesale wastewater for the year ended 31 March 2019 (continued)

Notes

- 1) Record-breaking warm and dry weather during summer 2018 resulted in demand increases from our customers. June was the hottest on record, with only a quarter of the long-term average rainfall, and conditions in July were similar. Waste water network teams monitored rivers closely due to increased pollution risk from low water level.
- 2) This related to additional power costs incurred as a result of Storm Emma.
- 3) This is estimate of the outcome of the 2010 appeal at our Swansea WWTW.



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4L – Enhancement capital expenditure by purpose for the year ended 31 March 2019 – wholesale water

	Water resources		Expenditure in the report year			Treated water distribution £m	Total £m
	Abstraction licenses £m	Raw water abstraction £m	Raw water transport £m	Raw water storage £m	Water treatment £m		
NEP - Making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs) (Note 1)	-	15.298	-	-	-	0.113	15.411
NEP - Eels Regulations (measures at intakes)	-	0.068	-	-	-	-	0.068
Addressing low pressure	-	-	-	-	-	0.024	0.024
Improving taste/odour/colour (Note 2)	-	-	-	-	-	8.924	8.924
Meeting lead standards	-	-	-	-	-	0.096	0.096
Supply side enhancements to the supply/demand balance (dry year critical/peak conditions)	-	0.128	0.056	-	-	-	0.184
Supply side enhancements to the supply/demand balance (dry year annual average conditions)	-	0.128	0.056	-	-	-	0.184
Demand side enhancements to the supply/demand balance (dry year critical/peak conditions)	-	0.128	-	-	-	-	0.128
Demand side enhancements to the supply/demand balance (dry year annual average conditions)	-	0.128	-	-	-	-	0.128
New developments (Note 3)	-	-	-	-	-	12.034	12.034
New connections element of new development (CPs, meters) (Note 4)	-	-	-	-	-	1.692	1.692
Investment to address raw water deterioration (THM, nitrates, crypto, pesticides, others) (Note 5)	-	0.387	-	-	6.199	-	6.586
Resilience	-	0.012	-	-	-	-	0.012
SEMD	-	0.099	-	0.002	2.088	0.471	2.660
NEP - Water Framework Directive measure	-	0.003	-	-	-	-	0.003
NEP - Investigations	-	0.544	-	-	-	-	0.544
Improvements to river flows	-	-	-	-	-	-	-
Metering (excluding cost of providing metering to new service connections) - meters requested by optants (Note 6)	-	-	-	-	-	2.241	2.241
Metering (excluding cost of providing metering to new service connections) - meters introduced by companies	-	-	-	-	-	0.041	0.041
Metering (excluding cost of providing metering to new service connections) – other	-	-	-	-	-	0.009	0.009
Capital expenditure purpose - impounding reservoirs (Note 7)	-	12.711	-	-	-	-	12.711
Total enhancement capital expenditure	-	29.634	0.112	0.002	8.287	25.645	63.680



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4L – Enhancement capital expenditure by purpose for the year ended 31 March 2019 – wholesale water (continued)

	Cumulative expenditure on schemes completed in the report year						Total £m
	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	
NEP - Making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs) (Note 8)	-	4.375	-	-	-	-	4.375
NEP - Eels Regulations (measures at intakes)	-	0.032	-	-	-	-	0.032
NEP - Invasive Non Native Species	-	-	-	-	-	-	-
Addressing low pressure	-	-	-	-	-	0.369	0.369
Improving taste/odour/colour (Note 9)	-	-	-	-	-	0.531	0.531
Meeting lead standards	-	-	-	-	-	-	-
Supply side enhancements to the supply/demand balance (dry year critical/peak conditions)	-	-	-	-	-	-	-
Supply side enhancements to the supply/demand balance (dry year annual average conditions)	-	-	-	-	-	-	-
Demand side enhancements to the supply/demand balance (dry year critical/peak conditions)	-	-	-	-	-	-	-
Demand side enhancements to the supply/demand balance (dry year annual average conditions)	-	-	-	-	-	-	-
New developments (Note 10)	-	-	-	-	-	5.371	5.371
New connections element of new development (CPs, meters) (Note 11)	-	-	-	-	-	1.692	1.692
Investment to address raw water deterioration (THM, nitrates, crypto, pesticides, others) (Note 12)	-	0.339	-	-	-	-	0.339
Resilience	-	-	-	-	-	-	-
SEMD	-	0.098	-	-	1.573	0.453	2.124
NEP - Drinking Water Protected Areas (schemes)	-	-	-	-	-	-	-
NEP - Water Framework Directive measure	-	-	-	-	-	-	-
NEP - investigations	-	0.635	-	-	-	-	0.635
Improvements to river flows	-	-	-	-	-	-	-
Metering (excluding cost of providing metering to new service connections) - meters requested by optants (Note 13)	-	-	-	-	-	2.241	2.241
Metering (excluding cost of providing metering to new service connections) - meters introduced by companies	-	-	-	-	-	0.041	0.041
Metering (excluding cost of providing metering to new service connections) - other	-	-	-	-	-	0.009	0.009
Capital expenditure purpose - impounding reservoirs (Note 14)	-	1.545	-	-	-	-	1.545
Total enhancement expenditure	-	7.024	-	-	1.573	10.707	19.304



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4L – Enhancement capital expenditure by purpose for the year ended 31 March 2019 – wholesale water (continued)

- 1) **Expenditure in the year:** the costs for raw water abstraction are predominately attributable to the Prioress Mill habitat intake screen scheme.
- 2) **Expenditure in the year:** we have a number of ongoing schemes to address Improving taste/odour/colour which are due to complete later in the AMP. In 2018/19 we have two schemes attracting major investment at Porth (£2.8m) and Maerdy (£5.5m).
- 3) **Expenditure in the year:** included within this line are schemes to address new developments. In addition, we have included a Water Network Growth Scheme at Hereford City as it is a growth scheme due to existing customers and does not satisfy the guidance for lines seven to 10.
- 4) 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.
- 5) **Expenditure in the year:** there are several schemes in our programme of investment to address raw water deterioration (THM, nitrates, crypto, pesticides, others), However, there are two major schemes assigned to this line namely Bryn Cowlyd Coagulation (£4m) and Tynywaun WTW (£1.8m) in respect of which we are reporting expenditure within the year.
- 6) **Expenditure in the year:** in 2017/18 we included within this line the meters associated with new connections, due to constraints with our system. For 2018/19 we have addressed this with a system enhancement and have reported meters associated with new connections in line 12.
- 7) In the year, investment in a number of impounding reservoirs was identified during the PR19 process as being enhancement expenditure. There are three large schemes reported in this line: Llanishen Reservoir (£1.6m), Talybont Reservoir (£6.1m) and Plas Uchaf Spillway upgrade (£2.4m).
- 8) **Cumulative expenditure:** 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 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.
- 9) **Cumulative expenditure:** we have completed two small schemes in the year.
- 10) **Cumulative expenditure:** 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, with the exception of the Growth scheme at Hereford City.



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4L – Enhancement capital expenditure by purpose for the year ended 31 March 2019 – wholesale water (continued)

Notes

- 11) 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.
- 12) **Cumulative expenditure:** these major schemes (Bryn Cowlyd Coagulation and Tynywaun) are not reported as complete and hence the costs do not appear in the cumulative element of the APR table.
- 13) **Cumulative expenditure in the year:** the metering programme provides a continual programme of works and as a result we have reported the costs as completed in the year.
- 14) **Cumulative expenditure:** as above; six schemes have been completed in 2018/19. We have only included the costs from when they have been regarded as enhancement, previously these schemes were categorised as maintenance expenditure. For completeness, we have included below both the total costs of the schemes and the 2018/19 amounts which have reported in the cumulative element:
- Llanishen Reservoir - 2018/19 costs of £0.413m (total £2.511m);
 - Ystradfellte Spillway Upgrade - 2018/19 costs of £ -0.144m (total £4.486m);
 - Usk Spillway - 2018/19 costs of £0.824m (total £4.413m);
 - 2017 flood studies 3 - 2018/19 costs of £0.011m (total £0.018m);
 - 2017 flood studies 4 - 2018/19 costs of £0.006m (total £0.022m); and
 - Craig Y Pystyll Ground Investigations -2018/19 cost of £0.124m (total £0.158m).



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4M – Enhancement expenditure by purpose for the year ended 31 March 2019 – wholesale wastewater

	Network+ sewage collection			Expenditure in report year Network+ sewage treatment			Sludge		Total £m
	Foul £m	Surface water drainage £m	Highway drainage £m	Sewage treatment and disposal £m	Sludge liquor treatment £m	Sludge transport £m	Sludge treatment £m	Sludge disposal £m	
First time sewerage (s101A)	0.621	0.534	0.289	-	-	-	-	-	1.444
Sludge enhancement (growth)	-	-	-	-	-	-	4.045	-	4.045
NEP - Conservation drivers	-	-	-	(0.076)	-	-	-	-	(0.076)
NEP - Event duration monitoring at intermittent discharges	0.533	0.459	0.248	(0.028)	-	-	-	-	1.212
NEP - Flow monitoring at sewage treatment works (Note 1)	-	-	-	0.798	-	-	-	-	0.798
NEP - Monitoring of pass forward flows at CSOs	-	-	-	0.003	-	-	-	-	0.003
NEP - Schemes to increase storm tank capacity	-	-	-	0.013	-	-	-	-	0.013
NEP - Storage schemes to reduce spill frequency at CSOs, storm tanks, etc. (Note 2)	2.648	2.278	1.232	-	-	-	-	-	6.158
NEP - Chemicals monitoring/investigations/options appraisals	-	-	-	0.008	-	-	-	-	0.008
NEP - National phosphorus removal technology investigations	-	-	-	(0.085)	-	-	-	-	(0.085)
NEP - Investigations	0.293	0.253	0.137	0.567	-	-	-	-	1.250
NEP - Nutrients (P removal at activated sludge STWs)	-	-	-	2.065	-	-	-	-	2.065
NEP - Nutrients (P removal at filter bed STWs)	-	-	-	2.570	-	-	-	-	2.570
NEP - Reduction of sanitary parameters (Note 3)	-	-	-	4.134	-	-	-	-	4.134
Odour	-	-	-	0.426	-	-	-	-	0.426
New development and growth	2.538	2.492	1.346	-	-	-	-	-	6.376
Growth at sewage treatment works (excluding sludge treatment) (Note 4)	-	-	-	3.080	-	-	-	-	3.080
Resilience	0.106	0.092	0.049	(0.025)	-	-	(0.012)	-	0.210
SEMD	0.179	0.155	0.083	0.633	-	0.002	0.006	0.002	1.060
Reduce flooding risk for properties	4.018	3.457	1.869	-	-	-	-	-	9.344
Transferred private sewers and pumping stations (Note 5)	0.379	0.326	0.176	-	-	-	-	-	0.881
Capital expenditure purpose – AMP continuous discharges	-	-	-	(0.038)	-	-	-	-	(0.038)
Capital expenditure purpose – AMP intermittent discharges	0.006	0.004	0.002	-	-	-	-	-	0.012
Capital expenditure purpose – ESL - UID	0.010	0.008	0.005	-	-	-	-	-	0.023
Capital expenditure purpose – Llanelli/Gowerton UWWTD	5.600	4.818	2.605	13.587	-	-	-	-	26.610
Total enhancement capital expenditure	16.931	14.876	8.041	27.632	-	0.002	4.039	0.002	71.523



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4M – Enhancement expenditure by purpose for the year ended 31 March 2019 – wholesale wastewater (continued)

	Cumulative expenditure on schemes completed in the report year								Total £m
	Network+ Foul £m	Sewage Collection Surface water drainage £m	Highway drainage £m	Network+ Sewage treatment and disposal £m	Sludge liquor treatment £m	Sludge transport £m	Sludge treatment £m	Sludge Disposal £m	
First time sewerage (s101A) (Note 6)	1.216	1.046	0.565	-	-	-	-	-	2.827
NEP - Event duration monitoring at intermittent discharges (Note 7)	0.533	0.459	0.248	(0.041)	-	-	-	-	1.199
NEP – Flow monitoring at sewage treatment works	-	-	-	-	-	-	-	-	-
NEP - Storage schemes to reduce spill frequency at CSOs, storm tanks, etc.	1.542	1.327	0.718	-	-	-	-	-	3.587
NEP – National phosphorous removal technology investigations	-	-	-	-	-	-	-	-	-
NEP - Nutrients (P removal at filter bed STWs)	-	-	-	0.913	-	-	-	-	0.913
NEP - Reduction of sanitary parameters (Note 8)	-	-	-	11.330	-	-	-	-	11.330
Odour	-	-	-	0.182	-	-	-	-	0.182
New development and growth	2.232	1.920	1.038	-	-	-	-	-	5.190
Growth at sewage treatment works (excluding sludge treatment) (Note 9)	-	-	-	5.330	-	-	-	-	5.330
Resilience	0.734	0.631	0.341	-	-	-	-	-	1.706
SEMD	0.181	0.157	0.084	0.315	-	-	-	-	0.737
Reduce flooding risk for properties	2.829	2.434	1.316	-	-	-	-	-	6.579
Transferred private sewers and pumping stations (Note 10)	-	-	-	-	-	-	-	-	-
Total enhancement capital expenditure	9.267	7.974	4.310	18.029	-	-	-	-	39.580



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4M – Enhancement expenditure by purpose for the year ended 31 March 2019 – wholesale wastewater (continued)

Notes

- 1) £8k 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.
- 2) **Expenditure in the year:** we have a number of schemes reported in this line such as Conwy (Deganwy SSO) and Conwy Quay SPS.
- 3) **Expenditure in the year:** a number of schemes incurred expenditure in the year, such as Rhydlafer WwTW (£2.6m) and Crymych WwTW (£0.5m).
- 4) **Expenditure in the year:** a number of WwTW schemes have been allocated to Growth at sewage treatment works (excluding sludge treatment), such as Gwili-Gwendraeth WwTW, Kinmel Bay WwTW and Johnston WwTW.
- 5) The spend in the year relates to private pumping stations which are treated as maintenance capex for accounting purposes, but is reported here as enhancement per the RAG guidance. We are continuing our data improvement exercise to capture scheme completion dates on private pumping stations and hence there are no costs in the cumulative data cells this year. In addition, private sewer costs (£6.7m) have been expensed and are included in Table 4E line 5 and therefore not reported as capital within this table (line 29).
- 6) 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.
- 7) This is a collection of event duration monitoring schemes and part of an ongoing programme. The majority of individual scheme completions cannot be determined so we have allocated the costs in the year as complete.
- 8) **Cumulative expenditure:** seven schemes have been financially completed this year: Templeton WwTW, Cerrigydrudion WwTW, Llanfair DC WwTW, Keeston WwTW, Clarboston WwTW, Llanbedr WwTW (Powys) and Luston and Yarpole WwTW.
- 9) **Cumulative expenditure:** a number of schemes are reported as complete this year, such as Chester WwTW and Kinmel Bay WwTW.
- 10) We are continuing our data improvement exercise to capture scheme completion dates on private pumping stations and hence no costs are reported in the cumulative data cells this year.



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4N – Sewage treatment - functional expenditure for the 12 months ended 31 March 2019

	Network+ £000
Costs of STWs in size bands 1 to 5	
Direct costs of STWs in size band 1	4,635.434
Direct costs of STWs in size band 2	2,241.172
Direct costs of STWs in size band 3	4,788.512
Direct costs of STWs in size band 4	6,683.402
Direct costs of STWs in size band 5	5,775.952
General and support costs of STWs in size bands 1 to 5	5,121.340
Functional expenditure of STWs in size bands 1 to 5	29,245.812
 Costs of STWs in size band 6	
Service charges for STWs in size band 6	598.000
Estimated terminal pumping costs size band 6 works	2,303.000
Other direct costs of STWs in size band 6	18,206.000
Direct costs of STWs in size band 6	21,107.000
General and support costs of STWs in size band 6	4,336.000
Functional expenditure of STWs in size band 6	25,443.000
 Total functional expenditure for sewage treatment	54,688.812

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 one of the sites has moved from band 6 to band 5.



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40 – Large sewage treatment works for the year ended 31 March 2019 – wholesale wastewater

Sewage treatment works – explanatory variables		STWNAMED 01	STWNAMED 02	STWNAMED 03	STWNAMED 04	STWNAMED 05	STWNAMED 06	STWNAMED 07	STWNAMED 08
Works name ¹		AFAN	CARDIFF BAY	CHESTER	CILFYNYDD	COG MOORS	COSLECH	CYNON	FIVE FORDS
Classification of treatment works		SAS	SAS	SAS	SB	SAS	SAS	SAS	TA2
Population equivalent of total load received		000	148.80	935.66	114.81	74.86	220.45	51.15	119.34
Suspended solids consent		mg/l	-	-	40	30	-	30	40
BOD ₅ consent		mg/l	50	50	25	20	50	20	30
Ammonia consent		mg/l	-	20	10	5	-	8	-
Phosphorus consent ²		mg/l	-	-	-	2	-	2	2
UV consent		mW/s/cm ²	-	-	-	-	-	-	-
Load received by STW		kgBOD ₅ /d	8,928	56,140	6,889	4,492	13,227	3,069	4,019
Flow passed to full treatment		m ³ /d	64,565	350,217	32,883	34,853	100,327	15,544	30,689
Sewage treatment works – functional expenditure									
Service charges		£000	42	66	35	28	35	16	16
Estimated terminal pumping expenditure		£000	252	334	2	-	576	-	13
Other direct expenditure		£000	947	3,530	719	260	1,405	308	297
Total direct expenditure		£000	1,241	3,930	756	288	2,016	324	313
General and support expenditure		£000	256	754	161	58	413	68	58
Functional expenditure		£000	1,497	4,684	917	346	2,429	392	371

¹The number of large WWTWs has reduced by one. Flint WWTW is no longer in this category as the population equivalent has reduced and now sits below the threshold of 25,000.

²Our ongoing data improvement exercise has identified three works (Coslech, Cilfynydd and Cynon) where phosphorous consent has been changed to align with the latest environmental permits issued. These changes also have a bearing on previous year's data.



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40 – Large sewage treatment works for the year ended 31 March 2019 – wholesale wastewater (continued)

Sewage treatment works – explanatory variables		STWNAMED 09	STWNAMED 10	STWNAMED 11	STWNAMED 12	STWNAMED 13	STWNAMED 14	STWNAMED 15	STWNAMED 16
Works name ¹		FLINT	GANOL	GARNSWALLT	GOWERTON	HEREFORD	KINMEL BAY	LLANELLI	NASH
Classification of treatment works		-	TA2	TA2	TA2	TB2	SAS	TA2	SAS
Population equivalent of total load received	000	-	77.53	29.80	56.86	128.05	67.72	58.14	294.57
Suspended solids consent	mg/l	-	60	28	60	60	-	60	30
BOD ₅ consent	mg/l	-	50	23	25	28	50	25	20
Ammonia consent	mg/l	-	-	4	9	10	-	10	18
Phosphorus consent ²	mg/l	-	-	2	1	1	-	1	-
UV consent	mW/s/cm ²	-	24	-	30	-	-	32	-
Load received by STW	kgBOD ₅ /d	-	4,652	1,788	3,412	7,683	4,063	3,488	17,674
Flow passed to full treatment	m ³ /d	-	21,678	20,984	23,589	39,489	16,978	26,805	56,410
Sewage treatment works – functional expenditure									
Service charges	£000	-	8	9	47	20	8	54	42
Estimated terminal pumping expenditure	£000	-	170	-	28	2	160	13	-
Other direct expenditure	£000	-	753	279	735	1,168	490	484	936
Total direct expenditure	£000	-	931	288	810	1,190	658	551	978
General and support expenditure	£000	-	199	58	183	265	142	103	183
Functional expenditure	£000	-	1,130	346	993	1,455	800	654	1,161

¹The number of large WWTWs has reduced by one. Flint WWTW is no longer in this category as the population equivalent has reduced and now sits below the threshold of 25,000.

²Our ongoing data improvement exercise has identified three works (Coslech, Cilfynydd and Cynon) where phosphorous consent has been changed to align with the latest environmental permits issued. These changes also have a bearing on previous year's data.



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40 – Large sewage treatment works for the year ended 31 March 2019 – wholesale wastewater (continued)

Sewage treatment work – explanatory variables		STWNAMED 17	STWNAMED 18	STWNAMED 19	STWNAMED 20	STWNAMED 21	STWNAMED 22	STWNAMED 23
Works name ¹					SWANSEA		BANGOR TREBORTH	ABERYSTWYTH (GLAN YR AFON)
		PENYBONT	PONTHIR	QUEENSFERRY	BAY	LLANASA	NORTH WEST	
Classification of treatment works		TA2	SAS	TB2	TA2	TA2	TA2	TA2
Population equivalent of total load received	000	163.47	96.76	54.82	195.73	37.97	31.29	33.21
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 ²	mg/l	-	-	-	-	-	-	-
UV consent	mW/s/cm ²	30	-	30	22	35	24	32
Load received by STW	kgBOD ₅ /d	9,808	5,806	3,289	11,744	2,278	1,877	1,993
Flow passed to full treatment	m ³ /d	79,511	36,213	9,815	65,985	8,255	10,978	11,485
Sewage treatment works – functional expenditure								
Service charges	£000	42	43	14	29	9	10	9
Estimated terminal pumping expenditure	£000	48	-	30	448	18	209	-
Other direct expenditure	£000	1,283	413	217	1,299	330	522	270
Total direct expenditure	£000	1,373	456	261	1,776	357	741	279
General and support expenditure	£000	294	82	58	370	74	163	59
Functional expenditure	£000	1,667	538	319	2,146	431	904	338

¹The number of large WWTWs has reduced by one. Flint WWTW is no longer in this category as the population equivalent has reduced and now sits below the threshold of 25,000.

²Our ongoing data improvement exercise has identified three works (Coslech, Cilfynydd and Cynon) where phosphorous consent has been changed to align with the latest environmental permits issued. These changes also have a bearing on previous year's data.



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4P – Non-financial data for WR, WT and WD for the year ended 31 March 2019 – wholesale water

			Current year
Line	Water resources		
1	Proportion of distribution input derived from impounding reservoirs	Propn 0 to 1	0.405
2	Proportion of distribution input derived from pumped storage reservoirs	Propn 0 to 1	0.316
3	Proportion of distribution input derived from river abstractions	Propn 0 to 1	0.247
4	Proportion of distribution input derived from groundwater works, excluding managed aquifer recharge (MAR) water supply schemes	Propn 0 to 1	0.032
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	Proportion of distribution input derived from saline abstractions	Propn 0 to 1	-
8	Proportion of distribution input derived from water reuse schemes	Propn 0 to 1	-
9	Number of impounding reservoirs	Nr	35
10	Number of pumped storage reservoirs	Nr	4
11	Number of river abstractions	Nr	26
12	Number of groundwater works excluding managed aquifer recharge (MAR) water supply schemes	Nr	14
13	Number of artificial recharge (AR) water supply schemes	Nr	-
14	Number of aquifer storage and recovery (ASR) water supply schemes	Nr	-
15	Number of saline abstraction schemes	Nr	-
16	Total number of sources	Nr	79
17	Number of reuse schemes	Nr	-
18	Total number of water reservoirs <i>(Note 1)</i>	Nr	78
19	Total capacity of water reservoirs <i>(Note 2)</i>	MI	460,913
20	Total number of intake and source pumping stations <i>(Note 3)</i>	Nr	40
21	Total number of raw water transport stations <i>(Note 4)</i>	Nr	44
22	Total capacity of intake and source pumping stations <i>(Note 5)</i>	kW	3,745
23	Total capacity of raw water transfer pumping stations <i>(Note 6)</i>	kW	36,761
24	Total length of raw water abstraction mains and other conveyors <i>(Note 7)</i>	km	80.71
25	Average pumping head – raw water abstraction <i>(Note 8)</i>	m.hd	40.66



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4P – Non-financial data for WR, WT and WD for the year ended 31 March 2019 – wholesale water (continued)

			Current year
Line			
26	Average pumping head – raw water transport <i>(Note 8)</i>	m.hd	21.71
27	Total length of raw and pre-treated (non-potable) water transport mains <i>(Note 7)</i>	km	537.20
28	Water resources capacity (measured using water resources yield)	MI/d	1,121.44
Water treatment			
29	Total water treated at all SW simple disinfection works	MI/d	-
30	Total water treated at all SW1 works	MI/d	-
31	Total water treated at all SW2 works	MI/d	-
32	Total water treated at all SW3 works <i>(Note 9)</i>	MI/d	179.23
33	Total water treated at all SW4 works <i>(Note 10)</i>	MI/d	6.07
34	Total water treated at all SW5 works <i>(Note 9)</i>	MI/d	628.17
35	Total water treated at all SW6 works	MI/d	-
36	Total water treated at all GW simple disinfection works	MI/d	-
37	Total water treated at all GW1 works	MI/d	-
38	Total water treated at all GW2 works	MI/d	-
39	Total water treated at all GW3 works	MI/d	-
40	Total water treated at all GW4 works <i>(Note 11)</i>	MI/d	0.03
41	Total water treated at all GW5 works <i>(Note 12)</i>	MI/d	27.35
42	Total water treated at all GW6 works	MI/d	-
43	Total water treated at more than one type of works	MI/d	-
44	Total number of SW simple disinfection works	Nr	-
45	Total number of SW1 works	Nr	-
46	Total number of SW2 works	Nr	-
47	Total number of SW3 works	Nr	20
48	Total number of SW4 works <i>(Note 13)</i>	Nr	-
49	Total number of SW5 works	Nr	29
50	Total number of SW6 works	Nr	-



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4P – Non-financial data for WR, WT and WD for the year ended 31 March 2019 – wholesale water (continued)

		Current year	
Line			
51	Total number of GW simple disinfection works	Nr	-
52	Total number of GW1 works	Nr	-
53	Total number of GW2 works	Nr	-
54	Total number of GW3 works	Nr	-
55	Total number of GW4 works <i>(Note 14)</i>	Nr	-
56	Total number of GW5 works <i>(Note 15)</i>	Nr	13
57	Total number of GW6 works	Nr	-
58	Number of treatment works requiring remedial action because of raw water deterioration	Nr	-
59	Zonal population receiving water treated with orthophosphate	000	2,953.375
60	Average pumping head – water treatment <i>(Note 8)</i>	m.hd	34.57
Water distribution			
61	Total length of potable mains as at 31 March	km	27,644.4
62	Total length of potable mains relined	km	-
63	Total length of potable mains renewed	km	45.4
64	Total length of new potable mains	km	61.8
65	Total length of potable water mains (≤320mm)	km	25,754.5
66	Total length of potable water mains >320mm - ≤450mm	km	913.4
67	Total length of potable water mains >450mm - ≤610mm	km	541.6
68	Total length of potable water mains > 610mm	km	434.9
69	Capacity of booster pumping stations <i>(Note 16)</i>	kW	38,861
70	Capacity of service reservoirs <i>(Note 17)</i>	MI	1,955
71	Capacity of water towers	MI	2
72	Distribution input <i>(Note 18)</i>	MI/d	840.85



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4P – Non-financial data for WR, WT and WD for the year ended 31 March 2019 – wholesale water (continued)

			Current year
Line			
73	Water delivered (non-potable)	MI/d	40.08
74	Water delivered (potable) <i>(Note 18)</i>	MI/d	709.04
75	Water delivered (billed measured residential) <i>(Note 19)</i>	MI/d	154.95
76	Water delivered (billed measured business) <i>(Note 18)</i>	MI/d	180.57
77	Total leakage <i>(Note 20)</i>	MI/d	169.54
78	Distribution losses	MI/d	119.07
79	Water taken unbilled	MI/d	14.98
80	Number of lead communication pipes	Nr	172,154
81	Number of galvanised iron communication pipes	Nr	32
82	Number of other communication pipes <i>(Note 21)</i>	Nr	846,466
83	Number of booster pumping stations <i>(Note 22)</i>	Nr	609
84	Total number of service reservoirs <i>(Note 23)</i>	Nr	462
85	Number of water towers	Nr	4
86	Total length of potable mains laid or structurally refurbished pre-1880 <i>(Note 24)</i>	km	126.9
87	Total length of potable mains laid or structurally refurbished between 1881 and 1900 <i>(Note 24)</i>	km	754.0
88	Total length of potable mains laid or structurally refurbished between 1901 and 1920 <i>(Note 24)</i>	km	2,568.8
89	Total length of potable mains laid or structurally refurbished between 1921 and 1940 <i>(Note 24)</i>	km	1,922.6
90	Total length of potable mains laid or structurally refurbished between 1941 and 1960 <i>(Note 24)</i>	km	4,463.1
91	Total length of potable mains laid or structurally refurbished between 1961 and 1980 <i>(Note 24)</i>	km	6,266.5
92	Total length of potable mains laid or structurally refurbished between 1981 and 2000 <i>(Note 24)</i>	km	6,671.7
93	Total length of potable mains laid or structurally refurbished post 2001 <i>(Note 25)</i>	km	4,870.8
94	Average pumping head – treated water distribution <i>(Note 8)</i>	m.hd	58.30



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4P – Non-financial data for WR, WT and WD for the year ended 31 March 2019 – wholesale water (continued)

			Current year
Line	Band disclosure (Nr)		
95	WTWs in size band 1 (<i>Note 26</i>)	Nr	21
96	WTWs in size band 2 (<i>Note 26</i>)	Nr	10
97	WTWs in size band 3 (<i>Note 26</i>)	Nr	7
98	WTWs in size band 4 (<i>Note 26</i>)	Nr	13
99	WTWs in size band 5 (<i>Note 26</i>)	Nr	8
100	WTWs in size band 6 (<i>Note 26</i>)	Nr	4
101	WTWs in size band 7 (<i>Note 26</i>)	Nr	2
102	WTWs in size band 8 (<i>Note 27</i>)	Nr	1
Band disclosure (%)			
103	Proportion of Total DI band 1 (<i>Note 26</i>)	%	2.2%
104	Proportion of Total DI band 2 (<i>Note 26</i>)	%	3.4%
105	Proportion of Total DI band 3 (<i>Note 26</i>)	%	4.8%
106	Proportion of Total DI band 4 (<i>Note 26</i>)	%	15.9%
107	Proportion of Total DI band 5 (<i>Note 26</i>)	%	23.5%
108	Proportion of Total DI band 6 (<i>Note 26</i>)	%	11.3%
109	Proportion of Total DI band 7 (<i>Note 26</i>)	%	22.7%
110	Proportion of Total DI band 8 (<i>Note 28</i>)	%	16.4%



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4P – Non-financial data for WR, WT and WD for the year ended 31 March 2019 – wholesale water (continued)

Notes

- 1) The number of reservoirs has reduced by two compared to the prior year as Llyn Elsi and Dolwyddelan are no longer in service.
- 2) Reduction by 311 MI compared to the prior year due to Llyn Elsi and Dolwyddelan no longer being in service.
- 3) During the course of the report year we identified that one site (Canaston Bridge) was reported as a raw water transfer station in 2017/18, however this should be reported within this intake and source pumping station line. In addition, as part of our continuous data review, we have five fewer intakes this year as they are all intakes without pumped extraction.
- 4) During the course of the year we have identified that one site (Canaston Bridge) was reported in this line in 2017/18, however this should be reported within the intake and source pumping station line. In addition, as part of our continuous data review, we have identified a net increase by six sites compared to last year as follows:
 - Removal of one raw water transfer station (RWTS) as it is no longer in use (Plas yr Esgob);
 - Addition of two RWTS (Nantymoch and Lower Lliw) which in previous year were reported as booster pumping stations; and
 - Addition of five RWTS (Cefni Raw, Court Farm Llanwern supply, Afon Wnion, Ty Mawr and Sudbrook) that have been identified.
- 5) See note 3. The inclusion of Canaston Bridge has resulted in an increase of 2,250kW. The five fewer sites have resulted in a reduction of 93kW. In addition, in the course of the year, we undertook further work to improve the quality of the data and this included obtaining kW values for some pumps (where they had been unavailable previously). Where we still do not have kW values for individual pumps, we have used an appropriate infill methodology.
- 6) See note 4. The exclusion of Canaston Bridge has resulted in a reduction of 2,250kW. In addition, in the course of the year, we undertook further work to improve the quality of the data and this included obtaining kW values for some pumps (where they had been unavailable previously). Where we still do not have kW values for individual pumps, we have used an appropriate infill methodology.



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4P – Non-financial data for WR, WT and WD for the year ended 31 March 2019 – wholesale water (continued)

Notes

- 7) During the course of 2018/19, we manually traced and identified the function of all 654 km of raw water mains contained within our GIS database and have designated them by reference to those that are utilised as:
 - (1) for the purpose of transferring water from source to source;
 - (2) for the purpose of transferring water from source to treatment;
 - (3) for the purpose of transferring water to customers; and
 - (4) for the purpose of transferring water for other purposes (e.g. within water treatment works, sludge mains etc.) which accounts for the total reduction in raw water mains reported across lines 24 and 27.The 654km contained in our GIS includes 35.7 km of sludge mains and raw water mains within the boundaries of our water treatment works, our reported figure of 617.91 km (the sum of lines 24 and 27) excludes this 35.7 km.
- 8) There has been a total increase of 4.43m.hd across all average pumping head figures which is reflective of the higher volume of raw water abstracted (Table 4D line 25) and distribution input (line 72).
- 9) Change is reflective of the change in distribution input (line 72) and production at the works.
- 10) This includes two bulk import works from Severn Trent Water. Change is reflective of the change in distribution input (line 72) and production at the works.
- 11) This includes one bulk import works from Severn Trent Water.
- 12) This includes one bulk import works from Severn Trent Water. Change is reflective of the change in distribution input (line 72) and production at the works.
- 13) There are no water treatment works in this category. The MI/d in line 4P.33 relates to a bulk supply import from two water treatment works.
- 14) There are no water treatment works in this category. The MI/d in line 40 relates to a bulk supply import from one water treatment works.



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4P – Non-financial data for WR, WT and WD for the year ended 31 March 2019 – wholesale water (continued)

Notes

- 15) Reduction by one from previous year - Halfway WTW was decommissioned in October 2017.
- 16) As part of our continuous data review, we are reporting several movements from the prior year (see line 83). In addition, in the course of the year, we undertook further work to improve the quality of the data and this included obtaining kW values of some pumps (where they had been unavailable previously). Where we still do not have kW values for individual pumps, we have used an appropriate infill methodology.
- 17) During the report year, ten SRVs were decommissioned resulting in a reduced capacity reported in this line.
- 18) A year-on-year increase is reflective of an increase of production at works and water into supply linked to higher demand during 2018/19 due to the climatic conditions across spring/summer.
- 19) See note 18. An increase is also expected each year in line with new connections and meter optants which increase company household metering and measured demand.
- 20) See APR Part 3, page 32 (MOS F2 Leakage).
- 21) The number of "other" communication pipes has increased in line with the increase in the number of connected properties.
- 22) As part of our continuous data review, we have several movements from our 2017/18 APR submission, including the decommissioning of several booster pumping station (BPS) and the removal of two BPS that are now reported within line 21 (raw water transfer stations).

PR19: as requested by Ofwat within their email dated 23 May 2019, the changes in BPS data between that submitted 590 as part of the PR19 response to query (WSH-DD-CA-002) and this 2018/19 APR 609 are largely attributable to the updated Ofwat guidance issued for PR19 query response.

We have 15 sites which we are reporting as one booster pumping station within the PR19 submission, following the updated PR19 guidance and definition of a site (i.e. graphical location defined by an address), however within the APR submission these are each reported as two pumping stations as the assets are separate pumping stations distributing water to separate locations although located within the boundary of our compound. In addition at one site the APR is reporting 3 pumping stations and in the PR19 response we reported as one.

As part of the continuous data review the effect on our PR19 submitted data of 590 would now be 591.



4P – Non-financial data for WR, WT and WD for the year ended 31 March 2019 – wholesale water (continued)

Notes

- 23) Ten SRVs were decommissioned during the report year.
- 24) Only recently constructed mains have a very high confidence of 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, a midpoint has been applied. The reported figures for lines 87 to 92 (i.e. potable water mains laid for structurally refurbished between 1881 and 2000) have all decreased from the prior year. The reported figure for line 93, potable water mains laid or structurally refurbished post 2001, has increased.
- 25) See note 24 - potable mains constructed during 2001 have been included within this line.
- 26) In the course of the year several works have moved between bands and the changes in the proportion of total distribution input per banding in lines 95 to 102 align with these movements. Included in the figures are three bulk import works from Severn Trent Water; these works are included in lines 95, 98 and 100.
- 27) See note 26 - increase of one relates to Felindre WTW.
- 28) See note 26 - 16% of distribution input has moved into Band 8 which relates to an increase of output and water into supply from Felindre WTW.



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4Q – Non-financial data for properties, population and other for the year ended 31 March 2019 – wholesale water

		Current year
Line	Properties and population	
1	Residential properties billed for measured water (external meter) <i>(Note 1)</i>	490.622
2	Residential properties billed for measured water (not external meter) <i>(Note 2)</i>	64.003
3	Business properties billed measured water	92.630
4	Residential properties billed for unmeasured water <i>(Note 3)</i>	715.377
5	Business properties billed unmeasured water	7.862
6	Total business connected properties at year end <i>(Note 4)</i>	116.357
7	Total residential connected properties at year end <i>(Note 5)</i>	1,325.411
8	Total connected properties at year end <i>(Note 6)</i>	1,441.768
9	Number of residential meters renewed <i>(Note 7)</i>	8.873
10	Number of business meters renewed <i>(Note 7)</i>	2.300
11	Number of meters installed at request of optants	13.583
12	Number of selective meters installed <i>(Note 8)</i>	-
13	Total number of new business connections	0.334
14	Total number of new residential connections	7.117
15	Total population served <i>(Note 9)</i>	3,057.767
16	Number of business meters (billed properties) <i>(Note 10)</i>	96.932
17	Number of residential meters (billed properties) <i>(Note 10)</i>	559.267
18	Company area km ² <i>(Note 11)</i>	20,081



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4Q – Non-financial data for properties, population and other for the year ended 31 March 2019 – wholesale water (continued)

		Current year	
Line	Other		
19	Number of lead communication pipes replaced for water quality	Nr	11
20	Total supply side enhancements to the supply demand balance (dry year critical/peak conditions)	MI/d	-
21	Total supply side enhancements to the supply demand balance (dry year annual average conditions)	MI/d	-
22	Total demand side enhancements to the supply demand balance (dry year critical/peak conditions) (Note 12)	MI/d	-
23	Total demand side enhancements to the supply demand balance (dry year annual average conditions) (Note 13)	MI/d	-
24	Energy consumption – network plus	MWh	192,896
25	Energy consumption – water resources	MWh	59,562
26	Energy consumption – wholesale	MWh	252,458
27	Mean zonal compliance	%	99.97%
28	Compliance risk index (see Note 14)	Nr	4.3
29	Event risk index (Note 15)	Nr	34.5
30	Volume of leakage above or below the sustainable economic Level (Note 16)	MI	(1.342)



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4Q – Non-financial data for properties, population and other for the year ended 31 March 2019 – 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) A slight reduction from 2017/18. This number reflects any changes in the Company billing system. It will include any new non-household connections and any data improvement/cleansing to the source systems.
- 5) An increase on 2017/18. This number reflects any changes in the Company billing system and data improvement/cleansing. It also reflects the level of new household connections across year.
- 6) An increase on 2017/18. This number reflects any changes in the Company billing system and data improvement/cleansing. It also reflects the level of new connections across the year.
- 7) The replacement of meters is on a reactive basis.
- 8) We do not have a selective meter policy.
- 9) An increase in the connected population by circa 2,800 compared to 2017/18. The process to determine connection rates and therefore connected population (which is reported in line 15) has been updated. Connections rates have reduced compared to 2017/18 and this has offset the increase in resident population by circa 12,900.
- 10) As per RAG 4.08 guidance, void properties are now excluded.
- 11) The 20,081 km² excludes 2.3 km² of Inset Appointment areas. These have reduced from the 5km last year due to DCWW adopting areas of the Llanilid Inset Area hence the slight rise in Company Area being reported.



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4Q – Non-financial data for properties, population and other for the year ended 31 March 2019 – wholesale water (continued)

Notes

- 12)** The Company does not operate demand-side enhancements during dry year critical/peak conditions or in dry years as specific policies; demand-side enhancements are undertaken as a baseline activity within given WRZs.

As per definition; 'Where dry year critical/peak conditions have not been presented in the current WRMP for a specific zone, the dry year annual average conditions should be substituted'.

To this end, any volumes have therefore been reported under 'Line 22: 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. Zero savings are reporting in 2016/17 consistent with these targets. It is also assumed that this is reported as a wholesale activity at this stage.

- 13)** Given the above (i.e. reported under note 12), savings are reported as 'zero'.

- 14)** This figure is provisional and final CRI results will be published in the Chief Inspector's Report in July 2019.

- 15)** This figure is provisional and 2018 ERI results will be published in the Chief Inspector's Report in July 2019. The provisional ERI reported figure of 34.5 is not final and will be subjected to change once outstanding 2018 events are assessed and finalised by DWI.

- 16)** The MOS-F2 (Leakage) 2018/19 outturn (169.54 MI/d) is below our PR14 SELL target (170.88 MI/d). This number is derived from our PR14 SELL target less MOS-F2 out turn. Negative volumes are indicative of exceeding (below) target performance.



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4R – Non-financial data for wastewater network and sludge for the year ended 31 March 2019 – wholesale wastewater

Line	Wastewater network		Current year
1	Connectable properties served by s101A schemes completed in the report year <i>(Note 1)</i>	Nr	31
2	Number of s101A schemes completed in the report year <i>(Note 1)</i>	Nr	1
3	Total pumping station capacity <i>(Note 2)</i>	KW	56,696
4	Number of network pumping stations <i>(Note 3)</i>	Nr	2,427
5	Total number of sewer blockages	Nr	21,979
6	Total number of gravity sewer collapses	Nr	585
7	Total number of sewer rising main bursts/collapses	Nr	74
8	Number of combined sewer overflows <i>(Note 4)</i>	Nr	2,254
9	Number of emergency overflows <i>(Note 4)</i>	Nr	362
10	Number of settled storm overflows <i>(Note 4)</i>	Nr	186
11	Sewer age profile (constructed post 2001) <i>(Note 5)</i>	km	1,794
12	Volume of trade effluent	ML/yr	10,957.30
13	Volume of wastewater receiving treatment at sewage treatment works	ML/yr	528,443.76
14	Length of gravity sewers rehabilitated <i>(Note 6)</i>	km	20
15	Length of rising mains replaced or structurally refurbished <i>(Note 6)</i>	km	5
16	Length of foul (only) public sewers	km	5,442
17	Length of surface water (only) public sewers	km	3,453
18	Length of combined public sewers	km	8,752
19	Length of rising mains	km	1,278
20	Length of other wastewater network pipework	km	354
21	Total length of "legacy" public sewers as at 31 March	km	19,279
22	Length of formerly private sewers and lateral drains (s105A sewers) <i>(Note 7)</i>	km	17,175



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4R - Wastewater network and sludge for the year ended 31 March 2019 – wholesale wastewater (continued)

Line	Sludge		Current year
23	Total sewage sludge produced, treated by incumbents <i>(Note 8)</i>	ttsd/year	75.2
24	Total sewage sludge produced, treated by 3rd party sludge service provider	ttsd/year	-
25	Total sewage sludge produced	ttsd/year	75.2
26	Total sewage sludge produced from non-appointed liquid waste treatment	ttsd/year	1.6
27	Percentage of sludge produced and treated at a site of STW and STC co-location <i>(Note 8)</i>	%	79.12%
28	Total sewage sludge disposed by incumbents <i>(Note 9)</i>	ttsd/year	50.6
29	Total sewage sludge disposed by 3rd party sludge service provider <i>(Note 9)</i>	ttsd/year	-
30	Total sewage sludge disposed		50.6
31	Total measure of intersiting 'work' done by pipeline	ttsd*km/year	-
32	Total measure of intersiting 'work' done by tanker	ttsd*km/year	348
33	Total measure of intersiting 'work' done by truck <i>(Note 10)</i>	ttsd*km/year	1,195
34	Total measure of intersiting 'work' done (all forms of transportation)	ttsd*km/year	1,543
35	Total measure of intersiting 'work' done by tanker (by volume transported) <i>(Note 11)</i>	m3*km/year	10,785,586
36	Total measure of 'work' done in sludge disposal operations by pipeline	ttsd*km/year	0
37	Total measure of 'work' done in sludge disposal operations by tanker <i>(Note 12)</i>	ttsd*km/year	2
38	Total measure of 'work' done in sludge disposal operations by truck <i>(Note 13)</i>	ttsd*km/year	2,355
39	Total measure of 'work' done in sludge disposal operations (all forms of transportation)	ttsd*km/year	2,357
40	Total measure of 'work' done by tanker in sludge disposal operations (by volume transported) <i>(Note 12)</i>	m3*km/yr	56,797
41	Chemical P sludge as percentage of sludge produced at STWs <i>(Note 14)</i>	%	35.95%



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4R – Non-financial data for wastewater network and sludge for the year ended 31 March 2019 – 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. One s101a scheme at Ynyslas was delivered in 2018-19 to serve 31 duty properties.
- 2) Whilst we still have an incomplete data set for kW values, we do have an ongoing project Maintenance and Reliability Support (MaRS) which is gathering this information. However, in the meantime, we have built upon last year's use of the "pump purpose" method of infill. Now every pump has a pump purpose, this enables us to estimate the kW for those pumps without a kW rating with a greater degree of accuracy than previously. This will be improved next year by replacing many of these infilled values with actual kW values as we continuously improve this data set.
- 3) The increase of 25 pumping stations is due to a combination of newly adopted Private Pumping stations along with some newly commissioned pumping stations.
- 4) The data improvement exercise to allocate the CSOs based on discharge type has resulted in some movement from lines 9 and 10 to Line 8. We will conclude the exercise in 2019.
- 5) The total length of PST sewers currently held within our GIS system represents approximately 23% of the total PST sewers estimated. In order to account for the remaining PST sewers, the percentage of Public sewers constructed Post 2001 and up to October 2011 was calculated and an equal percentage of PST sewers added to the total. Length includes sewers constructed during 2001 in order to maintain consistency with previous years reported figures.
- 6) 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.
- 7) Modelled length of sewers based on the WRC model.
- 8) More sludge was produced in North Wales while Five Fords digesters were offline; South Wales was in line with forecast.
- 9) Sludge disposed 2017/18 was insourced in South Wales and outsourced in North Wales. In 2018/19 this function is fully insourced seeing a move in numbers between lines 28 and 29.
- 10) Our sludge strategy is for all sludge to be transported to our strategic AAD sites, which increases interworks haulage by truck. This number will continue to increase over coming years.
- 11) The hot weather in this reporting year meant that we tankered thinner loads to eliminate any potential compliance risks.



4R – Non-financial data for wastewater network and sludge for the year ended 31 March 2019 – wholesale wastewater (continued)

Notes

- 12) The figure reported relates to part year for Porthmadog; this site was decommissioned in September 2018.
- 13) Significantly more sludge was disposed of in North Wales while Five Fords WwTW digesters were offline, as detailed above. This resulted in increased road haulage to get to farms to comply with the Biosolids Assurance Scheme.
- 14) An increase in sludge produced from Five Fords has had an impact on this reported percentage as Five Fords WwTW chemically doses for P removal as the digesters were offline during the year.



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4S – Non-financial data for sewage treatment for the year ended 31 March 2019 – wholesale wastewater

		Treatment Categories							Total
		Secondary			Tertiary				
		Primary	Activated Sludge	Biological	A1	A2	B1	B2	
Load received at sewage treatment works in 2018/19 ¹									
Load received by STWs in size band 1	Kg BOD ₅ /day	105	260	1,926	123	21	228	-	2,663
Load received by STWs in size band 2	Kg BOD ₅ /day	26	353	1,923	40	73	282	-	2,697
Load received by STWs in size band 3	Kg BOD ₅ /day	-	1,731	5,145	153	515	868	552	8,964
Load received by STWs in size band 4	Kg BOD ₅ /day	-	3,241	7,876	954	2,917	2,795	2,336	20,119
Load received by STWs in size band 5	Kg BOD ₅ /day	-	5,846	4,445	4,703	4,779	5,431	2,897	28,101
Load received by STWs above size band 5	Kg BOD ₅ /day	-	119,814	4,492	-	48,201	-	10,972	183,479
Total load received		131	131,245	25,807	5,973	56,506	9,604	16,757	246,023
Load received from trade effluent customers at treatment works	Kg BOD ₅ /day								20,764
Number of sewage treatment works at 31 March 2019 ²									
STWs in size band 1	Nr	66	39	332	12	1	29	-	479
STWs in size band 2	Nr	1	10	78	2	1	13	-	105
STWs in size band 3	Nr	-	24	80	2	5	11	4	126
STWs in size band 4	Nr	-	13	34	3	8	11	7	76
STWs in size band 5	Nr	-	6	4	4	4	6	3	27
STWs above size band 5	Nr	-	9	1	-	10	-	2	22
Total number of works		67	101	529	23	29	70	16	835



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4S – Non-financial data for sewage treatment for the year ended 31 March 2019 – wholesale wastewater (continued)

		Treatment work consents				
		Phosphorus				
		<=0.5mg/l	>0.5 to <=1mg/l	>1mg/l	No permit	Total
Load received at sewage treatment works in 2018/19¹						
Load received by STWs in size band 1	Kg BOD ₅ /day	-	-	-	2,663	2,663
Load received by STWs in size band 2	Kg BOD ₅ /day	-	-	56	2,641	2,697
Load received by STWs in size band 3	Kg BOD ₅ /day	-	356	121	8,489	8,966
Load received by STWs in size band 4	Kg BOD ₅ /day	144	3,111	789	16,074	20,118
Load received by STWs in size band 5	Kg BOD ₅ /day	-	7,094	7,258	13,750	28,102
Load received by STWs above size band 5	Kg BOD ₅ /day	-	21,743	13,367	148,367	183,477
Total load received		144	32,304	21,591	191,984	246,023
Number of sewage treatment works at 31 March 2019²						
STWs in size band 1	Nr	-	-	-	479	479
STWs in size band 2	Nr	-	-	3	102	105
STWs in size band 3	Nr	-	4	1	121	126
STWs in size band 4	Nr	1	10	3	62	76
STWs in size band 5	Nr	-	7	7	13	27
STWs above size band 5	Nr	-	4	4	14	22
Total number of works		1	25	18	791	835



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4S – Non-financial data for sewage treatment for the year ended 31 March 2019 – wholesale wastewater (continued)

		Treatment work consents					
		BOD ₅					
		<=7mg/l	>7 to <=10mg/l	>10 to <=20mg/l	>20mg/l	No permit	Total
Load received at sewage treatment works in 2018/19 ¹							
Load received by STWs in size band 1	Kg BOD ₅ /day	-	3	337	1,422	902	2,664
Load received by STWs in size band 2	Kg BOD ₅ /day	-	39	259	2,308	91	2,697
Load received by STWs in size band 3	Kg BOD ₅ /day	-	177	1,580	7,208	-	8,965
Load received by STWs in size band 4	Kg BOD ₅ /day	763	796	3,807	14,753	-	20,119
Load received by STWs in size band 5	Kg BOD ₅ /day	-	3,875	4,150	20,077	-	28,102
Load received by STWs above size band 5	Kg BOD ₅ /day	-	-	27,228	156,250	-	183,478
Total load received		763	4,890	37,361	202,018	993	246,025
Number of sewage treatment works at 31 March 2019 ²							
STWs in size band 1	Nr	-	1	37	169	272	479
STWs in size band 2	Nr	-	2	12	87	4	105
STWs in size band 3	Nr	-	3	22	101	-	126
STWs in size band 4	Nr	2	4	14	56	-	76
STWs in size band 5	Nr	-	4	4	19	-	27
STWs above size band 5	Nr	-	-	4	18	-	22
Total number of works		2	14	93	450	276	835



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4S – Non-financial data for sewage treatment for the year ended 31 March 2019 – wholesale wastewater (continued)

		Treatment work consents				
		Ammonia				
		<=1mg/l	>1 to <=3mg/l	>3 to <=10mg/l	>10mg/l	No permit
						Total
Load received at sewage treatment works in 2018/19¹						
Load received by STWs in size band 1	Kg BOD ₅ /day	-	11	260	538	1,854
Load received by STWs in size band 2	Kg BOD ₅ /day	-	23	433	646	1,595
Load received by STWs in size band 3	Kg BOD ₅ /day	-	177	2,027	2,451	4,310
Load received by STWs in size band 4	Kg BOD ₅ /day	-	937	5,300	4,153	9,729
Load received by STWs in size band 5	Kg BOD ₅ /day	-	3,875	6,811	6,446	10,971
Load received by STWs above size band 5	Kg BOD ₅ /day	-	-	42,099	92,870	48,509
Total load received		-	5,023	56,930	107,104	76,968
Number of sewage treatment works at 31 March 2019²						
STWs in size band 1	Nr	-	3	30	60	386
STWs in size band 2	Nr	-	1	21	30	53
STWs in size band 3	Nr	-	3	28	35	60
STWs in size band 4	Nr	-	3	21	17	35
STWs in size band 5	Nr	-	4	7	6	10
STWs above size band 5	Nr	-	-	9	6	7
Total number of works		-	14	116	154	551

¹ As part of a continuous data improvement exercise we have reviewed each NRW permit in relation to the phosphorus level and updated our reporting to reflect this. This change in reporting would also have an impact on our 2017/18 reported data.

² A number of changes to WwTW size bands has occurred during the year, predominantly due to changes made to the population equivalent figure, this has occurred as a result of us identifying improvements to our source information. The 835 WwTW includes two new for the year, Betws Bledrws STW and Cae Rhos WwTW Brynteg Anglesey. Two sewage treatment works have been disused, Taicynheaf No. 3 and Glewstone (Wilson Brook) leaving us with a total of 835.



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4S – Non-financial data for sewage treatment for the year ended 31 March 2019 – wholesale wastewater (continued)

	000s
Population equivalent	
Current population equivalent served by STWs	3,948.980
Current population equivalent served by discharge relocation schemes	-
Current population equivalent served by filter bed STWs with tightened/new P consents	-
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	-
Current population equivalent served by STWs with tightened/new UV consents	-
Population equivalent treatment capacity enhancement	4.879



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4T – Non-financial data for sludge treatment for the year ended 31 March 2019 – wholesale wastewater

	By incumbent	By third party sludge service providers
Sludge treatment process		
% Sludge – untreated	-	-
% Sludge treatment process - raw sludge liming <i>(Note 1)</i>	24.4%	-
% Sludge treatment process - conventional AD <i>(Note 1)</i>	19.6%	-
% Sludge treatment process- advanced AD <i>(Note 1)</i>	56.0%	-
% Sludge treatment process - incineration of raw sludge	-	-
% Sludge treatment process - incineration of digested sludge	-	-
% Sludge treatment process - phyto-conditioning/composting	-	-
% Sludge treatment process - other	-	-
% Sludge treatment process - total	100.0%	0.0%
(Un-incinerated) sludge disposal route		
% Sludge disposal route - landfill, raw	-	-
% Sludge disposal route - landfill, partly treated	-	-
% Sludge disposal route - land restoration/reclamation	-	-
% Sludge disposal route - sludge recycled to farmland <i>(Note 2)</i>	100.0%	-
% Sludge disposal route - other	-	-
% Sludge disposal route - total	100.0%	0.0%



Annual Performance Report 2018/19

4T – Non-financial data for sludge treatment for the year ended 31 March 2019 – wholesale wastewater (continued)

Notes

- 1) The movements in lines 2, 3 and 4 is largely attributable to the conventional digesters at Five Fords being offline since August 2018 in preparation for conversion to AAD, during this time, temporary liming has been in place. This has resulted in a significant increase in liming and a drop in conventional AD. Next year we will see a drop in liming and increase in AAD as Five Fords AAD comes online.
- 2) All sludge disposal activities were insourced in April 2018 leading to the removal of an outsourced reported figure. All sludge was recycled to farmland.



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4U – Non-financial data for properties, population and other for the year ended 31 March 2019

		Current year	
Line	Properties and population		
1	Residential properties connected during the year (<i>Note 1</i>)	000	8.687
2	Business properties connected during the year (<i>Note 1</i>)	000	0.376
3	Residential properties billed unmeasured sewage (<i>Note 2</i>)	000	711.457
4	Residential properties billed measured sewage (<i>Note 2</i>)	000	608.707
5	Residential properties billed for sewage	000	1,320.164
6	Business properties billed unmeasured sewage	000	6.946
7	Business properties billed measured sewage	000	66.136
8	Business properties billed for sewage	000	73.082
9	Void properties	000	64.906
10	Total number of properties	000	1,458.152
11	Resident population (<i>Note 3</i>)	000	3,074.519
12	Non-resident population (<i>Note 4</i>)	000	157.040
	Other		
13	Energy consumption - network plus	MWh	243,192.639
14	Energy consumption – sludge	MWh	64,963.413
15	Energy consumption - wholesale	MWh	308,156.052
16	Population resident in National Parks, SSSIs and Areas of Outstanding Natural Beauty (AoNBs)	000	154.803
17	Total sewerage catchment area (<i>Note 5</i>)	Km ²	1,158
18	Designated bathing waters (<i>Note 6</i>)	Nr	103
19	Number of intermittent discharge sites with event duration monitoring (<i>Note 7</i>)	Nr	320
20	Number of monitors for flow monitoring at STWs	Nr	-
21	Number of odour related complaints	Nr	2,855
22	Volume of storage provided at CSOs, storm tanks, etc. to meet spill frequency objectives	m ³	-
23	Total volume of network storage (<i>Note 8</i>)	m ³	2,619,127



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4U – Non-financial data for properties, population and other for the year ended 31 March 2019 (continued)

Notes

- 1) Properties connected during the year have been sourced from our RapidXtra billing system using a report which identifies new accounts set up during the year. This year we have not included any new connection numbers for water companies that bill on our behalf. The reasoning behind this is that the division of properties between the companies has drastically changed due to the Severn Trent purchase of Dee Valley and merger resulting in the creation of Hafren Dyfrdwy. The total properties billed on our behalf has dropped from 142,290 to 141,723 and data was not available from the companies to confirm any new connections within those numbers.
- 2) The unmeasured base has reduced as expected due to customers opting for meters.
- 3) Population has reduced by circa 25k. This has been driven by two components, 1) improvements to the process to determine sewerage catchment resident population at the post code level. The areas of a given post code and therefore population outside of the sewerage boundary are now excluded. These were previously allocated to the sewerage boundary therefore overstating previous resident population estimates. 2) The process to determine connection rates and therefore connected population for both water and wastewater population has been updated and aligned to the availability of the Ordnance Survey ABP dataset now used in GIS and underpinning the seeding layer. Previous estimates have been based on a seeding dataset that had not been updated for three years due to the Ordnance Survey ADL2 no longer being supported or updated. Overall impact of the above is two-fold. Firstly, a smaller year on year change in the starting resident population is observed (around 9.5k compared to circa 27.7k in the prior year). The resident population has increased over 2017/18 but by a smaller amount than the prior year. The lower resident population is then multiplied by a lower connection rate than 2017/18, therefore connected population calculates lower than the prior year. The overall impact is a reduction in connected population.
- 4) As part of our ongoing data cleansing exercises we have identified a number of non-connected caravan sites, these have been removed and this has resulted in a reduction in the number we are reporting this year.
- 5) As reported last year we have improved the methodology for calculating the total sewerage catchment area. This involved redrawing some of the polygons used to accurately define our sewerage area within our GIS system. This work has been completed and the reduction is due to the removal of unsewered areas.
- 6) This is derived from NRW's published Bathing Waters results 2018 and confirmed in writing with NRW. There were 104 designated Bathing Waters in Wales for 2018/19. However, one of these (Llyn Padarn, designated in 2014) is inland and has been excluded in accordance with the line definition for Bathing Waters.



4U – Non-financial data for properties, population and other for the year ended 31 March 2019 (continued)

Notes

- 7) Outputs are signed off by NRW as part of the AMP6 NEP.
- 8) Our reported figure is based on calculated volumes of our sewer network only (excluding manholes). We do not currently have volume data for our offline 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.



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4V – Operating cost analysis for the year ended 31 March 2019 – water resources

	Impounding reservoir £m	Pumped storage £m	River abstractions £m	Groundwater, excluding MAR water supply schemes £m	Artificial Recharge (AR) water supply schemes £m	Aquifer Storage and Recovery (ASR) water supply schemes £m	Other £m	Total £m
Opex Analysis								
Power (<i>Note 1</i>)	0.125	0.010	4.384	0.455	-	-	-	4.974
Income Treated as negative expenditure (<i>Note 2</i>)	(3.229)	(0.125)	(0.157)	(0.011)	-	-	-	(3.522)
Abstraction charges/discharge consents (<i>Note 3</i>)	2.131	0.615	5.520	0.388	-	-	-	8.654
Bulk supply	(0.009)	-	0.108	-	-	-	-	0.099
Other operating expenditure								
Renewals expensed in year (Infrastructure) (<i>Note 4</i>)	8.197	1.222	0.050	-	-	-	-	9.469
Renewals expensed in year (Non-Infrastructure)	-	-	-	-	-	-	-	-
Other operating expenditure excluding renewals – direct (<i>Note 5</i>)	3.690	0.339	1.049	0.377	-	-	-	5.455
Other operating expenditure excluding renewals – indirect (<i>Note 6</i>)	0.754	0.124	1.149	0.143	-	-	-	2.170
Total functional expenditure	11.659	2.185	12.103	1.352	-	-	-	27.299
Local authority and cumulo rates (<i>Note 7</i>)	0.318	0.253	0.101	0.118	-	-	-	0.790
Total operating expenditure (excluding third party)	11.977	2.438	12.204	1.470	-	-	-	28.089
Depreciation (<i>Note 8</i>)	5.118	1.067	0.427	0.498	-	-	-	7.110
Total operating costs (excluding third party)	17.095	3.505	12.631	1.968	-	-	-	35.199



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4V – Operating cost analysis for the year ended 31 March 2019 – water resources (continued)

		Water resources	Raw water distribution	Water treatment	Treated water distribution	Total
Other expenditure – Wholesale water						
Employment costs - directly allocated	£m	4.568	0.916	20.951	31.439	57.874
Employment costs - indirectly allocated	£m	2.777	0.436	5.096	10.311	18.620
Number FTEs consistent - directly allocated	Nr	104	18	395	643	1,160
Number FTEs consistent - indirectly allocated	Nr	42	7	78	158	285
Costs associated with Traffic Management Act	£m	-	-	-	0.010	0.010
Service charges						
Canal & River Trust service charges and discharge consents	£m	-	-	-	-	-
Environment Agency service charges/discharge consents	£m	8.654	-	0.280	-	8.934
Other abstraction charges/discharge consents	£m	-	-	-	-	-
Statutory water softening	£m	-	-	-	-	-



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4V – Operating cost analysis for the year ended 31 March 2019 – water resources (continued)

Notes

- 1) **Power:** Llanishen reservoir was previously reported as an impounding reservoir and is now reported as pumped storage.
- 2) **Income treated as negative expenditure:** a reduction in hydro generation income due to lower reservoir levels following the drought. In addition, income was also affected by the late commissioning of the new Bryn Cowlyd WTW delaying income from new hydro scheme.
- 3) **Abstraction charges/discharge consents:** NRW Abstraction Licence increased by 1%.
- 4) **Renewals expenses in year (infrastructure):** these costs relate to infrastructure renewals expenditure and are £6m lower than last year due to less schemes of a similar nature. £1m spend in pumped storage relates to Llanishen and Lisvane reservoir maintenance spends.
- 5) **Other operating expenditure excluding renewals (direct):** the cost increase compared to last year reflects £1.2m of costs included as indirect last year now treated as direct.
- 6) **Other operating expenditure excluding renewals (indirect):** last year's costs included a £1.1m third party adjustment that is now included as direct. In addition, the lower costs compared to last year reflect lower head office costs.
- 7) **Local authority and cumulo rates:** an increase relates to inflationary increases.
- 8) **Depreciation:** we have made the assumption that this line relates to both the depreciation of tangible fixed assets (£6.741m) and the amortisation of intangible assets (£0.369m). The split across areas is based on Gross MEAV.



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4W – Operating cost analysis for the 12 months ended 31 March 2019 - sludge transport, treatment and disposal

	Pipeline £m	Tanker £m	Truck £m	Total £m
Sludge transport method				
Power <i>(Note 1)</i>	-	0.789	-	0.789
Income treated as negative expenditure	-	-	-	-
Discharge consents	-	-	-	-
Bulk supply	-	-	-	-
Other operating expenditure				
Renewals expensed in year (Infrastructure)	-	-	-	-
Renewals expensed in year (Non-Infrastructure)	-	-	-	-
Other operating expenditure excluding renewals – direct <i>(Note 2)</i>	-	4.188	-	4.188
Other operating expenditure excluding renewals -	-	0.965	-	0.965
Total functional expenditure	-	5.942	-	5.942
Local authority and Cumulo rates <i>(Note 3)</i>	-	-	-	-
Total operating expenditure (excluding 3rd party)	-	5.942	-	5.942
Depreciation	-	0.237	-	0.237
Total operating costs (excluding 3rd party)	-	6.179	-	6.179



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4W – Operating cost analysis for the 12 months ended 31st March 2019 - sludge transport, treatment and disposal (continued)

	Untreated sludge £m	Raw sludge liming £m	Conventional AD £m	Advanced AD £m	Incineration of raw sludge £m	Incineration of digested sludge £m	Photo conditioning/ composting £m	Other £m	Total £m
Sludge treatment type									
Power <i>(Note 4)</i>	-	0.214	0.432	0.264	-	-	-	-	0.910
Income treated as negative expenditure <i>(Note 5)</i>	-	-	(0.528)	(1.953)	-	-	-	-	(2.481)
Discharge consents	-	-	-	-	-	-	-	-	-
Bulk supply	-	-	-	-	-	-	-	-	-
Other operating expenditure									
Renewals expensed in year (infrastructure)	-	-	-	-	-	-	-	-	-
Renewals expensed in year (non-Infrastructure)	-	-	-	-	-	-	-	-	-
Other direct operating expenditure <i>(Note 6)</i>	-	1.051	1.976	4.009	-	-	-	-	7.036
Other indirect operating expenditure <i>(Note 7)</i>	-	0.383	0.722	1.213	-	-	-	-	2.318
Total functional expenditure	-	1.648	2.602	3.533	-	-	-	-	7.783
Local authority and Cumulo rates <i>(Note 8)</i>	-	0.028	0.185	0.121	-	-	-	-	0.334
Total operating expenditure (excluding 3rd party)	-	1.676	2.787	3.654	-	-	-	-	8.117
Depreciation <i>(Note 9)</i> ⁶	-	0.487	3.159	14.663	-	-	-	-	18.309
Total operating costs (excluding 3rd party)	-	2.163	5.946	18.317	-	-	-	-	26.426



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4W – Operating cost analysis for the year ended 31 March 2019 – sludge transport, treatment and disposal (continued)

	Landfill, raw £m	Landfill, partly treated £m	Land restoration/ reclamation £m	Sludge recycled to farmland £m	Other £m	Total £m
Sludge disposal route (Note 10)						
Power	-	-	-	0.002	-	0.002
Income treated as negative expenditure	-	-	-	(0.004)	-	(0.004)
Discharge consents	-	-	-	-	-	-
Bulk supply	-	-	-	-	-	-
Other operating expenditure						
Renewals expensed in year (infrastructure)	-	-	-	-	-	-
Renewals expensed in year (non-Infrastructure)	-	-	-	-	-	-
Other direct operating expenditure (Note 11)	-	-	-	3.678	-	3.678
Other indirect operating expenditure	-	-	-	1.587	-	1.587
Total functional expenditure	-	-	-	5.263	-	5.263
Local authority and cumulo rates	-	-	-	-	-	-
Total operating expenditure (excluding third party)	-	-	-	5.263	-	5.263
Depreciation	-	-	-	0.035	-	0.035
Total operating costs (excluding third party)	-	-	-	5.298	-	5.298



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4W – Operating cost analysis for the year ended 31 March 2019 – sludge transport, treatment and disposal (continued)

		Network plus sewage collection	Network plus sewage treatment	Sludge	Total
Other expenditure – Wholesale wastewater					
Other analysis					
Employment costs - directly allocated (<i>Note 12</i>)	£m	17.864	13.966	9.819	41.649
Employment costs - indirectly allocated (<i>Note 13</i>)	£m	7.844	7.209	4.362	19.415
Number FTEs - directly allocated (<i>Note 14</i>)	Nr	432	326	207	965
Number FTEs - indirectly allocated (<i>Note 15</i>)	Nr	120	110	67	297
Costs associated with Traffic Management Act (<i>Note 16</i>)	£m	0.026	-	-	0.026
Costs associated with Industrial Emissions Directive	£m	-	-	0.026	0.026
Service charges					
Canal and River Trust service charges and discharge consents (<i>Note 17</i>)	£m	0.015	-	-	0.015
Environment Agency service charges/discharge consents (<i>Note 17</i>)	£m	1.573	3.470	-	5.043
Other service charges/permits	£m	-	-	-	-



Annual Performance Report 2018/19

4W – Operating cost analysis for the year ended 31 March 2019 – sludge treatment (continued)

Notes

- 1) **Power:** power costs within Tanker relate to vehicle fuel now shown within power (moved from direct costs).
- 2) **Other operating expenditure excluding renewals (direct):** these constitute direct tanker department costs and some supporting hired and bought-in services.
- 3) **Local authority and Cumulo rates:** none - there are no buildings associated with this activity.
- 4) **Power:** £212k lower than last year. AAD performance at both South sites was better than last year; a reduction in imported power of £370k despite price increases. Movements within liming and CAD due to two sites no longer operating conventional digestion.
- 5) **Income treated as negative expenditure:** £182k lower than last year. Income at the above AAD sites was also higher due to better performance - an increase of £430k. Income reduced within CAD due to two sites no longer operating in this way (these sites are now liming sludge) plus reduced Gas-to-Grid due to capital investment on site resulting in closure of plant.
- 6) **Other direct operating expenditure:** £86k higher than last year. Raw sludge liming costs have increased in 2018/19 due to two sites changing from CAD to raw sludge liming.
- 7) **Other indirect operating expenditure:** £0.8m lower than last year, reflecting lower head office, scientific services and support costs.
- 8) **Local authority and cumulo rates:** a reduction from last year of £203k mainly relates to rates rebate received for Swansea, amounting to £143k.
- 9) **Depreciation:** the charge is higher than last year due to increased spend as part of the sludge strategy. The depreciation charge includes depreciation of £17.253m and amortisation of intangibles of £1.056m.
- 10) **Power:** all sludge is recycled to farmland.
- 11) **Other indirect operating expenditure:** direct expenditure increased in 2018/19, by £500k due to change of contract as a result of operational issues.
- 12) Direct employment costs have increased by 8% on the prior year for wholesale wastewater, and reflect additional FTEs (38), overtime (adverse weather impact) and salary increments including inflation. The average salary has increased to £43.1k per annum from £41.6k in 2017/18. Sewage collection has increased by £2m and sewage treatment reduced by £0.4m (despite increase in FTEs by 15). This is because £1.6m of Asset Planning team costs were included as treatment instead of network last year for this table, although the FTE values were stated correctly.



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4W – Operating cost analysis for the year ended 31 March 2019 – sludge treatment (continued)

Notes

- 13) Indirect employment costs are £0.7m higher than last year, mainly in sludge. This reflects the average salary increasing from £63k per annum to £65k per annum. Indirect employment costs are allocated to each business area using the split of costs in their area, and there is a small element (£0.8m, 1% of total salary costs) allocated using direct costs.
- 14) FTEs have increased by 38 since last year – 15 in sewage treatment and 31 in sludge with a reduction of eight in network. The increase also relates to agency, classed as indirect last year but now reported as direct. The agency movement is one of the reasons for the increase together with increased staff as a result of the adverse weather in summer 2018.
- 15) Indirect FTEs have increased by one, as agency costs previously reported as indirect are now reported as direct. The model assumes that each indirect FTE is paid the same, with no weighting applied. The Indirect FTEs are calculated based on the indirect cost salary allocated to each business area divided by this salary cost per annum.
- 16) The costs include permit costs plus an element of admin fee. These are reported in this table as "£m" even though the guidance states that it should be reported as "£".
- 17) These are reported in this table as "£m" even though the guidance states that it should be reported as "£".



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Other – bidding activity – bioresources market for the year ended 31 March 2019

		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	£000	5,978.915
Number of different suppliers at the year end	Nr	8
Number of contracts ended during the year	Nr	2
Number of contracts renewed during the year	Nr	7
Number of new contracts that have been agreed during the year	Nr	2
Formal tender process		
Number of formal tenders you issued during the year	Nr	1
Total number of bids received on all your tenders	Nr	42
Number of tenders you awarded during the year	Nr	2
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	75.16
Quantity of sludge treated in-house	ttds/year	75.16
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	-



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Other – Bidding Activity – Bioresources market for the year ended (continued)

		Total
Sludge transported		
Total quantity of sludge transported by road	ttds/year	88.38
Quantity of sludge transported by road in-house by your own bioresources service	ttds/year	8.46
Quantity of sludge transported by road by a third party	ttds/year	79.92
Number of contracts to provide sludge transport services	Nr	11
Number of suppliers with contracts for sludge transportation	Nr	8
Sludge recycled or disposed		
Total quantity of sludge recycled or disposed	ttds/year	50.60
Quantity of sludge recycled or disposed in-house by your own bioresources service	ttds/year	50.60
Quantity of sludge recycled by a third party	ttds/year	-
Number of contracts held to provide sludge recycling or disposal services	Nr	-
Number of suppliers with contracts for sludge recycling or disposal	Nr	-



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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 (Adopted 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.

IFRS 16 Leases

IFRS 16, which is effective for accounting periods beginning on or after 1 January 2019, will revise the treatment of leases in financial statements and largely eliminates the accounting distinction between operating and finance leases. The Directors have assessed the impact of adopting IFRS 16 and expect it to result in the recognition of additional tangible fixed assets as a value of around £1m, which will attract a depreciation charge rather than the current treatment of lease payments as an operating cost.



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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 2019 was £73.1m while amounts actually billed in 2018/19 totalled £74.9m 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 Connections income; it is now treated as 'Other Income' in Table 1a.



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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 it 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 if 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.



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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.



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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 Methodology Statement¹. The purpose of this document is to explain the systems, processes and allocation methods involved in the preparation and population of the accounting methodology 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 methodology 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.



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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:



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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 2019 the total value of tangible and intangible fixed assets has been revalued to the Company's 'shadow RCV', being the 31 March 2019 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 1.08 para 1.6, in its regulatory financial statements the Company has dis-applied the IAS 16 requirement to capitalise applicable borrowing costs.



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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.



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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.



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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 payment is considered probable. Amounts recoverable from contract partners relating to targets not being achieved are only recognised 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 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.



Annual Performance Report 2018/19

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.



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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 charged 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.



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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 2019, none of the Company's derivatives qualified for hedge accounting under IFRS 9 (2018: 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 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.



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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.



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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

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.

¹ available on website www.dwrcymru.com
or on request from the Company
Secretary, Dŵr Cymru Cyfyngedig,
Pentwyn Road, Nelson, Treharris
CF466LY.



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.
- **Derivatives:** Companies are required to disclose fair value adjustments for financial instruments separately, so that the profit/loss before such adjustments can be clearly seen on the face of the income statement. This is a presentation changes rather than an adjustment that will affect the financial results.
- **Grants and contributions:** Companies are required to show grants and contribution included as revenue or other operating income as other income on the face of the income statement.

Reconciliation of statutory financial statements to regulatory accounting tables

1A – Income statement for the year ended 31 March 2019

	£m	
Loss for the year per statutory accounts	(97.328)	
Capitalisation of interest	(15.900)	Ofwat's RAG override to disapply capitalisation of borrowing costs under IAS 21
Depreciation on capitalised interest	2.400	Ofwat's RAG override to disapply capitalisation of borrowing costs under IAS 21
Revenue recognition-measured income accrual adjustment	3.846	Deviation from IFRS 15 as no judgement applied to the probability of collections when recognising revenue
Deferred tax	0.974	
	(8.680)	
Non-appointed profit (net of tax)	0.161	Regulatory tables prepared in respect of the appointed business only
Loss for the year per regulatory accounts	105.847	

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

	£m	
Increase in net cash per statutory accounts	215.504	
Non-appointed profit for the year	0.194	Regulatory tables prepared in respect of the appointed business only
Increase in net cash per regulatory accounts	215.698	



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Notes to the regulatory accounts (continued)

Differences between statutory and RAG definitions (continued)

1C – Statement of financial position as at 31 March 2019

	£m	
Net assets per statutory accounts	1,308.525	
Capitalisation of interest		
- Fixed assets	(67.373)	Ofwat's RAG override to disapply capitalisation of borrowing costs under IAS 23
- Intangible assets	(7.065)	Ofwat's RAG override to disapply capitalisation of borrowing costs under IAS 23
	(74.438)	
Trade and other receivables:		
- Measured income accrual	3.845	Ofwat's RAG override to deviate from IFRS15; no judgement to be applied to the probability of collections , and all is considered as collectable
	3.845	
Trade and other payables:		
- Deferred income	270.582	RAG requirement to report separately on face of statement
- Accrued interest	(51.019)	RAG requirement to include accrued interest in trade and other payables
- Overdraft	(142.430)	RAG requirement to include accrued interest in trade and other payables
	77.133	
Borrowings		
- Accrued interest	51.019	RAG requirement to include accrued interest in trade and other payables
- Overdraft	142.430	RAG requirement to include accrued interest in trade and other payables
	193.449	
Deferred income – grants and contributions	0.018	RAG requirement to report separately on face of statement
Deferred income – adopted assets	(264.700)	RAG requirement to report separately on face of statement
Provisions	(5.900)	RAG requirement to include deferred income < 1 year to provisions
Deferred tax	12.615	Deferred tax impact on RAG deviation (above)
Net assets allocated to non-appointed activities	(46.421)	Regulatory tables prepared in respect of the appointed business only
Net assets per regulatory accounts	1,204.126	



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Notes to the regulatory accounts (continued)

2. Revenues by customer type

Table 2G, “Revenues by customer type for the year ended 31 March 2019 – non-household water”, reports all >50MI 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 < 50MI (measured)	0.003	-	0.003	0.008	7
Partially-treated water < 50MI (measured)	0.002	-	0.002	0.003	18
Potable water < 50MI (non-household) Measured	63.044	3.700	66.744	92.230	40
Potable water < 50MI (non-household) Unmeasured	2.138	0.266	2.405	7.863	34
Raw water > 50MI (measured)	2.059	0.011	2.070	0.003	3686
Partially-treated water > 50MI	0.883	0.009	0.892	0.001	8920
Water large user 50MI-99MI (measured)	4.493	0.047	4.540	0.051	921
Water large user 100MI-249MI (measured)	4.977	0.054	5.031	0.031	1732
Water large user 250MI-499MI (measured)	4.208	0.040	4.248	0.013	3044
Water large user 500MI-1000MI (measured)	3.871	0.047	3.917	0.006	7769
Water large user > 1000MI (measured)	-	-	-	-	-
Special agreement register – ref WSHNONPOT8	-	-	-	-	-
Special agreement register – ref WSHNONPOT9	1.818	0.021	1.839	0.001	20965
Special agreement register – ref WSHPOT1	0.028	0.000	0.028	0.001	324
Special agreement register – ref WSHNONPOT10	2.494	0.011	2.505	0.002	5334
Total default tariffs	90.018	4.206	94.224	100.213	42



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Notes to the regulatory accounts (continued)

3. Transactions with associates

The Directors of Dŵr Cymru Cyfyngedig (DCWW) 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 £2,511,211 (2018: £2,483,961).

Company interest payable to Dŵr Cymru (Financing) Limited (DCFL), another member of the Glas Cymru Holdings Cyfyngedig group, was £144.8m during the year (2018: £144.5m). As at 31 March 2019 the balance outstanding on the interCompany loan from DCFL stood at £2,577.3m (2018: £2,561.0m). All borrowings raised by DCFL 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 Welsh Water Infrastructure Limited of £312,542 (2018: £69,864), Welsh Water Organic Energy (Cardiff) Limited of £4,874 (2018: nil) and Welsh Water Organic Energy Limited of £7,509 (2018: nil) were paid by the Company on their behalf. These transactions have been reported as interCompany balances payable.

During the year no dividends were paid or received (2018: none) 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 3.11 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	2.596	Fully absorbed cost	0.100
	Welsh Water Organic Energy (Cardiff) Ltd	1.541	Fully absorbed cost	0.457
	Welsh Water Organic Waste Ltd	0.008	Fully absorbed cost	0.170
Loan finance	Welsh Water Organic Energy Ltd	2.596	Loan from WW Infrastructure	-
	Welsh Water Organic Energy (Cardiff) Ltd	1.541	Loan from WW Infrastructure	-
InterCompany balances	Welsh Water Organic Energy Ltd	2.596	InterCompany loan from regulated business	0.070
	Welsh Water Organic Energy (Cardiff) Ltd	1.541	InterCompany loan from regulated business	0.004
	Welsh Water Infrastructure Ltd	-	InterCompany loan from regulated business	0.312
	Welsh Water Organic Waste Ltd	0.008	InterCompany loan from regulated business	0.007
Corporation tax group relief surrendered by regulated business	Glas Cymru Holdings Cyfyngedig		Corporation tax group relief surrendered of £0.881m with a tax value of £0.167m (£0.881m x 19%) using the corporation tax rate applicable to the current period (see Note 7 – Taxation).	0.167
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	1.541	Arm's length contract in 2014 with third party	0.333



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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 2018		309.9	166.2	717.8	119.5	1,313.40
Loss for the year	1A	-	-	-	(97.3)	(97.3)
Revaluation net of tax	1B	-	-	109.7	-	109.70
Actuarial gain net of tax	1B	-	-	-	(17.3)	(17.3)
Transfer to retained earnings		-	-	(63.0)	63.0	-
At 31 March 2019	1C	309.9	166.2	764.5	67.9	1,308.5

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 three-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.



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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 3.19% and LIBOR of 0.96%.

As at 31 March 2019, £501m 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 £380m. The nominal value of swaps allocated to the finance leases is £397m, 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 £81m have been reallocated to floating rate bonds, 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 one to 32 years with a weighted average of 10.9 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:

Derivative type	Nominal value by maturity (net)	Total value			Interest rate (weighted average)	
	Over five years £m	Nominal value (net) £m	Mark to market £m	Total accretion £m	Payable %	Receivable %
Interest rate swap (sterling)						
Fixed to index-linked	100	100	142.486	44.462	1.89	4.59
Total	100	100	142.486	44.462		

- **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 five to 10 year intervals regardless of counterparty ratings.



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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 2019 100% of debt was hedged with approximately 60% being index-linked and 40% fixed.



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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 ROE of 4.36% for the cumulative four year period ended 31 March 2019.

The Company's share of totex overspend adjusted for timing differences delivered a negative return of 0.95%. There is a small incentive reward of £0.053m at the end of 2019 and estimated to be £0.078 at the end of the AMP. The difference between the accrual and allowed average real interest rates on debt reduced the overall return by 0.29%.

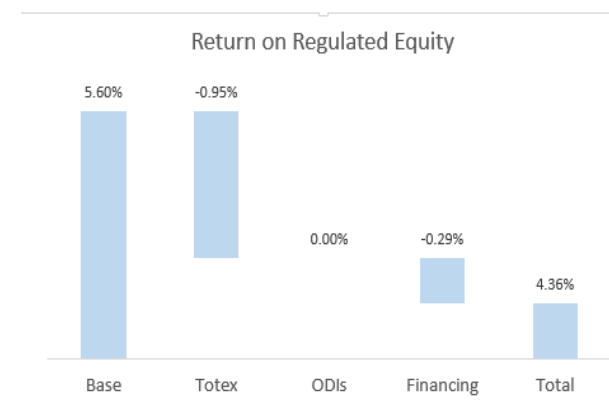
	%
Base	5.60%
Total expenditure (totex)	(0.95%)
Outcome delivery incentives (ODIs)	0.00%
Financing	(0.29%)
Total	4.36%

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 2019.

Totex performance

The overall totex outperformance excludes the effects of allowed expenditure delayed until later in the AMP. The Company share of underperformance is £38m up to 2017/18 and £62m 2018/19 after taking into account timing differences.

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





Annual Performance Report 2018/19

Notes to the regulatory accounts (continued)

6. Return on regulated equity (continued)

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 when collected. An ODI gain of £0.053m was accrued in 2018/19 on a cumulative basis and as the value is so low does not contribute to RORE performance.

Financing performance

Actual interest paid divided by actual net debt gives an average nominal interest rate of 5.4%. Adjusting for the effects of inflation results in an average real interest rate of 2.8% which is 0.22% higher than the interest rate allowed for by Ofwat in PR14.

Impact of Customer Distribution Spend

Since the beginning of the AMP, £157m of additional customer value money has been spent, equivalent to 0.79% impact on RORE. This is included in the totex figures above as over spend.

Excluding customer value spend, the Totex underperformance reduces to (0.16%) from (0.95%) and overall RORE is 5.15%.



Notes to the regulatory accounts (continued)

7. Taxation

Current tax	£m	Deferred tax	£m
Current period:			
Surrender of tax losses - ECAs	(0.317)	Current periods	(18.952)
Surrender of tax losses – group relief	(0.167)	Prior periods	0.086
Corporation tax on R&D tax credit included	0.100	Effect of rate change	-
Prior periods	0.509	Total deferred tax credit	(18.866)
Total current tax credit	0.125		
		Total tax credit	(18.741)

Current tax credits of £0.5m have arisen from the surrender of tax losses relating to energy efficient capital expenditure (ECA) of £0.3m and the surrender of tax losses to a fellow group Company of £0.2m. Tax losses of £0.9m were surrendered and the value received by the Company was calculated as £0.2m (£0.9m x 19%), using the tax rate applicable for the current period.

Operating expenditure includes a tax credit of £0.5m relating to R&D expenditure. The R&D tax credit is taxable and the corresponding tax charge of £0.1m is shown above.

Tax trading losses carried forward as at 31 March 2019 are £nil (2018:£nil) as a result of disclaiming capital allowances in the current and prior periods. The Company had capital losses of £212,000 carried forward at 31 March 2019.

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



Notes to the regulatory accounts (continued)

7. Taxation (continued)

Factors effecting future tax charges

The Company does not anticipate paying corporation tax during the remainder of AMP6 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 other than the proposed reduction in corporation tax rate from 19% to 17%, and the changes to the ECA regime, both effective from 1 April 2020. The ECA changes will mean that the Company will be no longer receive a repayable tax credit for its investment in energy efficient capital expenditure. Changes to the corporation tax rate have already been reflected in the Company's deferred tax balances which have been calculated using the rate of 17%. 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:

Current tax reconciliation	£m
Loss before tax and fair value movements on derivatives	107.166
Multiplied by standard rate 19%	(20.361)
Expenses not deductible for tax purposes	0.395
Non-taxable IFRIC 18 income	(1.121)
Other timing differences – general provision	(0.455)
Capital allowances in excess of depreciation	21.000
Rate differences re ECA surrender and 20%	0.158
Prior year tax credit	0.509
	0.125

Effective tax rate	£m
Corporation tax credit relating to current period	(0.384)
Loss before tax and fair value movements on derivatives	(107.166)
Effective corporation tax rate (current year)	0.36%



Notes to the regulatory accounts (continued)

7. Taxation (continued)

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 (current year v PR 14 forecast)	(24.108)	Difference in profits from FD - mainly due to additional depreciation from the revaluation of fixed assets
Additional depreciation compared to FD	20.335	Decision to revalue fixed assets taken after FD
Movement in profit before tax pre fair value gains/losses excluding effect of revaluation of fixed assets	(3.773)	Restated so on comparable basis with FD in which fixed assets were not revalued
Disallowable expenditure	0.357	Disallowable expenditure marginally higher
Non-taxable income(IFRIC 18)	(1.121)	IFRIC 18 income higher than forecast in FD
General provisions and pensions	(0.473)	Pension contributions from FD increased
Capital allowances and tax losses	4.943	Capital allowances lower than FD and have been disclaimed to eliminate tax losses c/f
Adjustment re prior years	0.509	See analysis of current tax charge above
Surrender of tax loss re energy efficient expenditure	(0.317)	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 charge	0.125	



Notes to the regulatory accounts (continued)

7. Taxation (continued)

Deferred tax	£m
At 1 April	416.039
Credit to income statement	(18.866)
Charge to revaluation reserve	22.474
Credit to SOCI – re pensions	(2.616)
At 31 March	417.031
Analysis of amounts (credited)/charged to the statement of comprehensive income and revaluation reserve:	
Defined benefit pension schemes	(3.381)
Reallocation of tax from income statement – pension payment in excess of service charge	0.765
Credit to SOCI – re pensions	(2.616)
Revaluation of fixed assets	22.474
Charge to revaluation reserve	22.474
Effect of	£m
Tax allowances in excess of depreciation	236.122
Deferred tax on revaluation of fixed assets	243.666
Capital gains rolled over	2.703
	482.491
Deferred tax on capital losses c/f	(0.036)
Deferred tax on losses of derivatives	(48.206)
Pensions	(15.549)
Other tax differences	(1.669)
	417.031



Notes to the regulatory accounts (continued)

7. Taxation (continued)

Tax charges for Statement 1A – Income Statement for the year ended 31 March 2019

	Statutory Accounts £m	RAG differences £m	Non appointed income £m	Reg accounts total £m
Loss before tax	(115.128)	(9.654)	0194	(124.588)
Current tax				
Current period	0.484	-	-	0.484
Corporation tax on R&D tax credit included in operating costs	(0.100)	-	-	(0.100)
Prior periods	(0.509)	-	-	(0.509)
Total current tax	(0.125)	-	-	(0.125)
Deferred tax				
Current period	17.344	1.641	(0.033)	18.952
Prior periods	0.581	(0.667)		(0.086)
Effect of rate change	-	-	-	-
Total deferred tax	17.925	0.974	(0.033)	18.866
Total tax credit/ (charge)	17.800	0.974	(0.033)	18.741



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Notes to the regulatory accounts (continued)

7. Taxation (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.



Annual Performance Report 2018/19

Notes to the regulatory accounts (continued)

7. Taxation (continued)

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 during the year ending 31 March 2020, and we expect to maintain the current classification.

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



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Notes to the regulatory accounts (continued)

7. Taxation (continued)

Our group tax strategy (continued)

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 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 3,500 people and playing an important role in the regional economy.



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Notes to the regulatory accounts (continued)

8. Long-term viability statement

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 shareholder (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 and improved services.

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 £2.4 billion).

Although not a listed Company, we adhere to the UK Corporate Governance Code, applying the shareholder provisions to our Members and bond investors. We have also followed Ofwat's guidance in IN19/07 in producing this statement.

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 eleven 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 current business planning process and covers the next two regulatory review periods, to 2030. We have clarity of our current regulatory price controls to 2020, have developed detailed plans for the next regulatory period (AMP7) to 2025, and we have developing outline plans for the following period (AMP8) to 2030 in the context of our strategic planning document "Welsh Water 2050".

¹ A copy of the 2019 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 CF466LY



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Notes to the regulatory accounts (continued)

8. Long-term viability statement (continued)

The principal risks facing the Group (and how we mitigate these) are set out in the 2019 Annual report and accounts of Glas Cymru Holdings Cyfyngedig on pages 48 to 51 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 efficiency 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 2019 business plan. This is being prepared for submission to Ofwat in respect of the PR19 price control and which principally covers the period 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" stresses of a 10% revenue reduction for AMP7 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 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.



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Notes to the regulatory accounts (continued)

8. Long-term viability statement (continued)

The estimated impact of each scenario being overlaid on the Group's financial plan does not present an unacceptable 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 the 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. Although on negative outlook now, likely changes to the regulatory environment and the Group's own principal risks are unlikely to have so great an impact on the Company's credit rating during the period under review so as to put our access to financial markets at risk. 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 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.



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Notes to the regulatory accounts (continued)

8. Long-term viability statement (continued)

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 complement 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.



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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, which is the regulated water and wastewater business. The report below has been extracted from the 2019 Annual report and Accounts of Glas Cymru Holdings Cyfyngedig.

The 2019 Glas Cymru Report and Accounts is available on our website, www.dwrcymru.com or by request from the Company Secretary, Dŵr Cymru Cyfyngedig, Pentwyn Road, Nelson, Treharris CF466LY

REMUNERATION COMMITTEE REPORT

PART 1: COMMITTEE CHAIR'S LETTER

Principal Responsibilities

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

The Remuneration Committee also determines the Executive Directors' Remuneration Policy and sets remuneration for the Chair of the Board, the Executive Directors and the Executive Team.

In exercising this responsibility, the Committee has oversight of workforce Remuneration Policy and related policies, and of the alignment of incentives and rewards with the Company's culture and purpose, taking these points into account when setting the Policy.

Activities during the year

This year the Remuneration Committee has met more often than usual, eight times in all, and has also attended two workshops hosted by our remuneration advisers, Mercer.

In addition to carrying out the usual business of the Committee as detailed below, we have begun work on reviewing the Executive Directors' Remuneration Policy for AMP7, and considering how the principles of this policy will be applied across the wider business.

For the first time we have held a private session with Non-Executive Directors and Glas Members at the December Members' meeting, to review remuneration principles, the outputs of our benchmarking exercise for Executive Directors' remuneration and to consider the key principles which will underpin the AMP7 Remuneration Policy.



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REMUNERATION COMMITTEE REPORT (continued)

The Remuneration Committee's Agenda in 2018/19

During the year, the Committee's activities have included:

- Wider 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 wider Executive team and benchmarking remuneration;
- Reviewing the salaries of the Executive Directors and the Chair of the Board's fee, and considering recommendations for the annual review;
- Assessing performance achieved against the measures attached to the Annual Variable Pay Scheme (AVPS) and Long Term Variable Pay Scheme (LTVPS) and agreeing awards to be made to participants;
- Reviewing its effectiveness and terms of reference

During the year the Committee has also undertaken a detailed review of remuneration issues to ensure our Remuneration Policy is fit for purpose in AMP7. In considering best practice, we have had regard to the revised guidance from Ofwat, and the updated UK Corporate Governance Code 2018 (the "Revised Code") which will formally apply to our annual reporting for the financial year 2019-20 onwards.

We consider we already have a transparent and fair remuneration policy with an emphasis on rewarding the achievements of long-term objectives. Our intention for AMP7 is to continue to include both fixed and variable elements of pay, the latter based on performance related objectives reflecting our Welsh Water 2050 and AMP7 objectives, with targets linked to, amongst other things, exceptional customer service. We have considered with Members the impact of the Company's geographic location and its not-for-shareholder constitution on Executive Director pay, and have concluded that we should add a new principle to reflect the not-for-shareholder element to the Remuneration Principles (as set out below) previously considered with Members.



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REMUNERATION COMMITTEE REPORT (continued)

The principal elements of this review of our Remuneration Policy were as follows:

- Detailed review of the structure and content of the current Remuneration Policy, and its relevance for 2020-25 including in particular the AVPS and LTVPS elements of the scheme;
- Considering the appropriate benchmarking comparators for the Executive Directors and the wider Executive team;
- Considering how best to structure long-term incentives to motivate Executive Directors in the longer-term interests of the Company;
- Presenting the key findings from this wider review of the approach to remuneration to Glas Members at the December 2018 Members' Meeting.

The Committee focused on benchmarking Executive Directors' remuneration against the water and sewerage companies in England and Wales and against other not-for-shareholder organisations. The Committee concluded that a 15% discount should be applied against the benchmark for the Executive Directors, to reflect differences in pay between other not-for shareholder organisations and comparable shareholder-owned entities. However, as regards the role of the Chief Executive, even with this discount, the benchmarking showed that his remuneration was significantly lower than CEOs of most other Water and Sewerage companies.

The Remuneration Committee also reviewed the Chair of the Board's fee in March 2019 and concluded that this should also be subject to a 15% discount against the benchmark, given the conclusions reached in relation to Executive Directors.

Those responsible for the fees payable to Non-Executive Directors, being the Chair of the Board and the Executive Directors, concluded that the benchmarking information should also be subject to a 15% discount and this was approved by the Board (Non-Executive Directors abstaining from the vote) on 7 March 2019. The appropriate benchmark comparators for Chair of the Board and Non-Executive Director fees will be considered in April 2020 once the data for 2018/19 is available. In the meantime, the fees for the Chairman and Non-Executive Directors have been frozen for 2019/20 to take account of the discount.



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REMUNERATION COMMITTEE REPORT (continued)

Glas Group Remuneration Principles

In 2015-16, the Committee agreed the key principles that it would apply to its work which were discussed with Glas Members. There are set out below, together with the additional Principle added by the Committee this year.

- 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
- Variable remuneration should be focused on the issues of key concern to the business — water and environmental quality, customer service and financial performance
- The calibration of 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 structured 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 performance and 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.
- Remuneration should take account of the Company's not-for-shareholder corporate structure. (New principle discussed with Members in December 2018).



REMUNERATION COMMITTEE REPORT (continued)

The Role of Glas Members

Glas Members perform an essential governance function for the Group in the approval of remuneration policies. Members approve the Remuneration Policy of the Board by binding vote at least every three years (or where any significant change is proposed). This is in accordance with the remuneration reporting requirements for UK quoted companies.

Members approved the current Remuneration Policy at the 2015 AGM and reapproved it for a further year at the 2018 AGM.

The Annual Report on Remuneration details how the Policy has been implemented each year and is subject to an advisory vote by Members. At the 2018 AGM, 98% of Glas Members voted in favour of the Annual Report on Remuneration.

Implementing the AMP6 Remuneration Policy

Our approach to remuneration during AMP6 is set out in the Remuneration Policy which was approved by the Glas Members at the 2015 AGM, and reapproved for a further period at the 2018 AGM.

Members will be asked to approve the Policy for a further year at the 2019 AGM, as a continuation of the current policy including a specific amendment to the LTVPS opportunity. It is the Committee's intention to present the Remuneration Policy for AMP7 to the 2020 AGM for approval.

Executive Directors' remuneration is intended to be fair and competitive in relation to the sector. Pay comprises both fixed and variable pay in order to incentivise delivery of short and long-term objectives. It takes account of the Group's not-for shareholder constitution and founding principles.

Salaries for Executive Directors are reviewed annually and generally increased in line with the rest of the workforce. The next salary review will take place in March 2020.



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REMUNERATION COMMITTEE REPORT (continued)

Short and long-term performance-related pay for Executive Directors is focussed on meeting performance targets. A performance-related element of annual pay is paid to all non-probationary colleagues across the business and is based to varying degrees on the same performance scorecard as for the Executive Directors.

The Committee's intention is that pensions contributions as a percentage of salary should be broadly in line across the whole workforce. Former members of the Defined Benefit pension scheme (which closed to future accrual on 31 March 2017) benefit from enhanced contributions to the Defined Contribution scheme until 31 March 2020. A small number of members of the ESPS section members continue within the Defined Benefit scheme (see disclosure on page 138 of the 2019 Glas Cymru Report and Accounts).

Changes to the Executive Directors' Remuneration in 2019-20

Having concluded that the role of Chief Executive is currently significantly under-remunerated after allowing for the 15% discount to reflect the Group's not-for-shareholder corporate structure, the Committee has resolved to implement a 2% above-inflation salary increase for the Chief Executive this year. The Committee further resolved to close the gap through increasing the long term performance based opportunity. Therefore, an increase in the potential maximum LTVPS opportunity for the CEO to 100% of base salary will be proposed to Members at the 2019 AGM, to take effect from 1 April 2019, similarly to address in part the total reward shortfall. However, the current Chief Executive, Chris Jones, has declined to accept any grant of LTVPS in excess of 60% of base salary.

Finally, given that Ofwat has ceased to use the Service Incentive Mechanism (SIM) to measure customer service, the Committee has resolved to replace SIM as the customer service satisfaction target for 2019-20 with Ofwat's proxy SIM measure for 2019-20, as this is likely to allow the best comparison over the current three-year period of the LTVPS scheme (see note on page 141).

Content of the Directors' Remuneration Report

The Directors' Remuneration Report includes:

- A Report on Remuneration Policy (pages 116 to 121). Members will be asked to re-approve the Policy at the 2019 AGM for a further year, including an increase in the LTVPS opportunity for the Chief Executive role (see note above). A new policy will be proposed at the 2020 AGM, to take effect from April 2020, being the start of the next price control period.



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REMUNERATION COMMITTEE REPORT (continued)

- An Annual Report on Remuneration (pages 122 to 144) which describes how the Remuneration Policy was implemented during 2018/19 and how we intend to apply it during 2019/20. This will be put to an advisory Member vote at the 2019 AGM.

In preparing the Annual Remuneration Report, the Committee has taken into account Ofwat's guidance on transparency in its Regulatory Accounting Guidance 3.11, 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 (as amended by Section 50 of the Water Act 2003) (see pages 123 to 130). It has also considered the Objectives set out in Ofwat's Guidance on Transparency, Leadership and Governance, and the Revised Code.

PART 2 - POLICY REPORT

This section sets out the detail of the Remuneration Policy approved by the Members in 2015 and re-approved in 2018. We propose to continue this policy for a further year, subject to the specific changes outlined in Part 4 (page 136 to 144). The aim of Welsh Water's Remuneration Policy is to promote the long-term success of the Company and to retain and incentivise the Executive Directors to deliver strong and sustainable performance aligned with the Company's long-term objectives.

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.



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REMUNERATION COMMITTEE REPORT (continued)

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 (re-approved for a further year in 2018). The original Policy Report can be found on pages 76 to 78 in the 2015 Annual Report and Accounts on the Company's website: dwrcymru.com/reports

The current 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, in order to attract and retain necessary skills and talent;
- 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 undue 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 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.

The Group negotiates salaries for the wider workforce with three recognised trade unions by means of a single table approach. The 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 currently formally consult with employees on Executive pay, but does regularly seek the views of colleagues through our Employee Engagement Survey, and through involving the People and Change Director.



REMUNERATION COMMITTEE REPORT (continued)

The Committee also takes into account views expressed in dialogue with Glas Members as well as wider information, benchmarking and best practice.

Figure 1 (on the following page) summarises the components of the Executive Directors' remuneration in accordance with the Remuneration Policy.



REMUNERATION COMMITTEE REPORT (continued)

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: <ul style="list-style-type: none"> — role, experience and performance — wider economic conditions — increases awarded throughout the rest of the broader workforce — benchmarking against other water and sewage companies in England and Wales. 	Annual increases generally linked to those of the wider workforce though the Remuneration Committee retain discretion for different awards to individuals where appropriate. Current salaries are disclosed in Part 4 on pages 136 to 144	None
Benefits	To provide a market competitive benefits package to help recruit and retain Executives	Directors are entitled to private health cover and life insurance The Chief Executive and the Managing Director have a historic entitlement to permanent health insurance The Managing Director receives a car allowance of £5,000 per annum, based on business need. Other benefits such as relocation expenses or travel/accommodation allowances may be offered as appropriate. The Finance Director receives a travel allowance of £12,000 per annum.	Value of benefits is based on the cost to the Group and is not predetermined.	None
Pension	To help recruit and retain high calibre employees	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 until March 2020 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.	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%. The value is commensurate with previous payments but delivered through an alternative vehicle. The Finance Director receives a cash alternative of 11%.	None
AVPS	To incentivise the annual delivery of stretching targets and personal objectives.	AVPS targets reviewed annually by the Committee Outturn is determined by the Remuneration Committee after the year end based on performance against targets <ul style="list-style-type: none"> — Paid as cash — Not pensionable 	Maximum 100% of salary	Measures aligned to the Business Plan themes of Customer, Compliance and Cost With additional annual focus and personal targets (see page 127).



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REMUNERATION COMMITTEE REPORT (continued)

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 of personal objectives.	<p>Clawback provisions apply in the following circumstances:</p> <ul style="list-style-type: none"> - Restatement of accounts - Material misrepresentation - Gross misconduct or reputational damage caused to the Company or Group Company <p>The Committee also retains the discretion to withhold awards in the event of significant issues affecting the safety or the reputation of the Company</p> <p>AVPS awards may be withdrawn between award and vesting or clawed back for a period of 6 years from the date of payment.</p>	Maximum 100% of salary	Measures aligned to the Business Plan themes of Customer, Compliance and Cost With additional focus and personal targets (see page 127)
LTVPS	<p>To align the long term interests of the Executive Directors with those of Welsh Water's customers and stakeholders</p> <p>To incentivise achievement of value creation over the long term</p>	<p>Cash awards based on stretching performance targets relating to:</p> <ul style="list-style-type: none"> - rolling three year relative SIM performance - combined measure of the growth in Reserves and Transfers to Customer Reserves <p>Clawback provisions apply in the following circumstances</p> <ul style="list-style-type: none"> - Restatement of accounts - Material misrepresentation - Gross misconduct or reputational damage caused to the Company or Group Company <p>The Committee also retains the discretion to withhold rewards in the event of significant issues affecting safety, or the reputation of the Company, or where there are any other circumstances which cause the Committee to determine, in its discretion, that a reduction to the Vested Amount would be appropriate.</p> <p>LTVPS awards may be withdrawn prior to the payment of the award for a particular financial year or clawed back for a period of six years from the date of payment.</p>	<p>300% of salary over the five year regulatory period to 31 March 2020 (a maximum potential award of 60% per annum)</p> <p>For the performance year 2019-20 it is proposed that the maximum opportunity for the Chief Executive role to be increased from 60% of base salary to 100% of base salary, although the current Chief Executive has declined to accept any award over 60% of base salary.</p>	<p>50% based on relative SMS performance</p> <p>50% based on customer value generated (see page 127)</p>
Non Executive Directors	Provides an appropriate level of fixed fee to recruit and retain individuals with a broad range of experience and skills to support the Board in the delivery of its duties.	<p>The Remuneration Committee determines the fee payable to the Chairman of the Board and, separately, the Executive Directors and the Chair of the Board to determine the fee level payable to the Non-Executive Directors.</p> <p>All Directors are paid for expenses incurred in connection with their role on the Board and any taxable benefits implications that may result.</p> <p>The Committee resolved in March 2019 that future benchmarking will include a 15% non-shareholder discount.</p>	<p>Non-Executive Directors do not receive any fees for chairing Committees.</p> <p>The Senior Independent director is paid more to reflect the breadth of his/her duties.</p>	None



REMUNERATION COMMITTEE REPORT (continued)

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

New Executive Director appointments	<p>Base salary levels will be set to reflect the experience of the individual, appropriate market data and internal relativities. Recent benchmarking shows the Chief Executive role is below the median benchmark even applying a 15% discount for our non-shareholder structure, and the Committee proposes to move towards the discounted median over time.</p> <p>The policy provides 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 promotees to Executive Director, entitlement to previously accrued AVPS or LTVPS up to the appointment date will be unaffected.</p> <p>Should it be the case that the Remuneration Committee considers it necessary to buy out some or all of the incentive pay which an individual would forfeit on leaving their current employer, such compensation, where possible, will be structured such that the terms of the buyout mirror the form and structure of the remuneration being replaced.</p>
Policy for payments to departing executives	<p>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 in lieu of notice. There is a significant duty of mitigation built into the contract in such circumstances.</p> <p>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.</p> <p>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.</p> <p>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 will be retained in full by the Executive.</p>

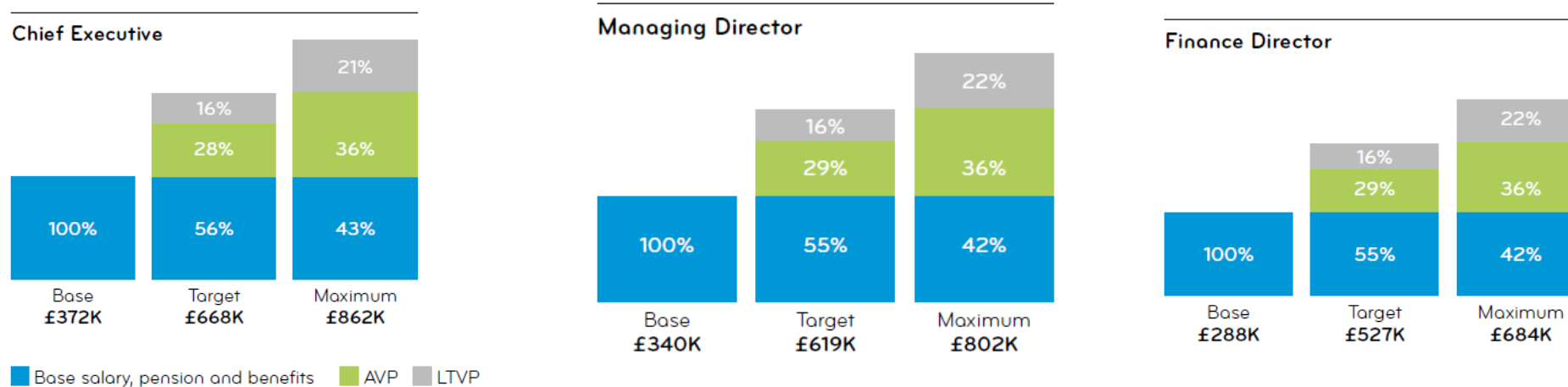


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REMUNERATION COMMITTEE REPORT (continued)

The graphs below show for each Executive Director:

- The minimum level of remuneration payable. This was not dependent upon performance and comprised basic salary, benefits in kind and pension;
- the expected level of remuneration, reflecting a typical level of performance against targets for the AVP and LTVPS; and
- the maximum level of remuneration, if all AVP and LTVP performance targets were fully achieved.



Part 3: IMPLEMENTATION IN 2018/2019

This section sets out the details of the Executive Directors' and Non-Executive Directors' remuneration for 2018/19. It explains how the Remuneration Policy has been implemented in 2018/19. As well as disclosing remuneration figures for the Executive Directors, it also includes details on performance and the resulting levels of AVPS pay out and vesting of LTVPS. Certain disclosures of the detailed information about the Executive Directors' remuneration below have been audited by the Group's independent Auditors, KPMG LLP (as indicated against the relevant tables).



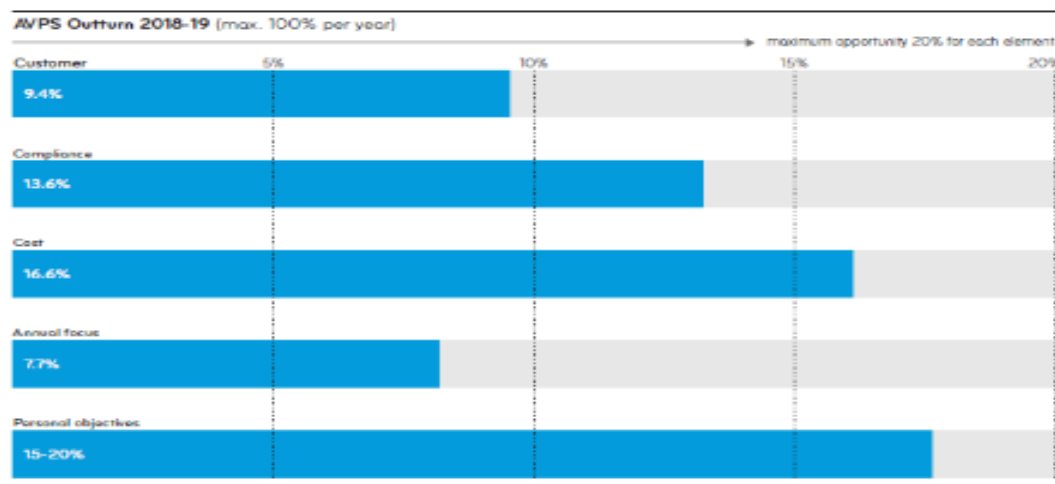
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REMUNERATION COMMITTEE REPORT (continued)

Amounts paid in 2018/19

Remuneration payable to the Executive Directors in respect of the financial year ended 31 March 2019 was as follows:

- A base salary (which was increased by 3% in April 2018) plus pension (or equivalent payments) and private health and permanent health benefits;
- Under the AVPS, 2018/19 awards have been made up of:
 - 23% of base salary for performance against the Customer (9.4%) and Compliance (13.6%) elements of the scheme,
 - 16.6% of base salary for performance against the Total Expenditure (Totex) Cost and Bad Debt element,
 - 7.7% for performance against Strategic (Annual Focus),
 - between 15% and 20% for performance against Personal Objectives, making a total award of between 62.3% and 67.3% of base salary for each Executive Director.



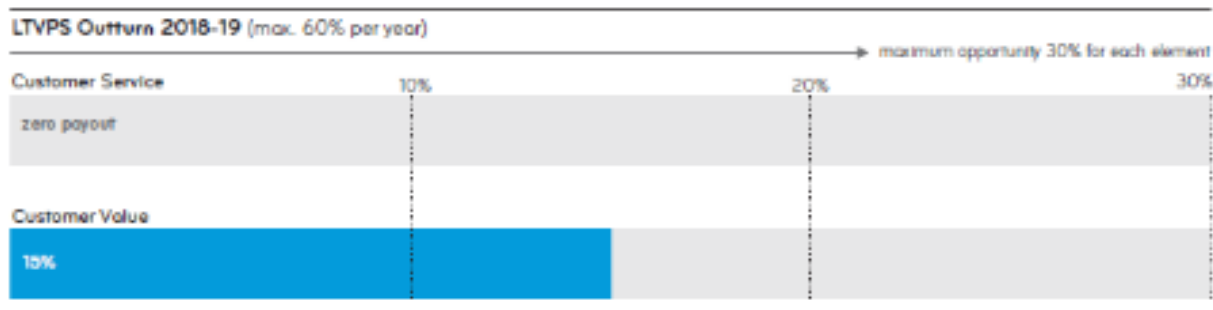


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REMUNERATION COMMITTEE REPORT (continued)

- Under the LTVPS, 15% payment has been made for performance relating to the Customer Value element of the scheme; 0% (zero) is payable in respect of the Customer Service element of the scheme, although the outcome of Ofwat's SIM performance measure for 2018/19 will not be known until later in the summer.

The total variable pay award for each Executive Director for 2018-19 was between 77.3% and 82.3% of base salary.





REMUNERATION COMMITTEE REPORT (continued)

WHAT WAS PAID IN 2018-19 AND LINK BETWEEN PAY AND PERFORMANCE

PAYMENTS MADE TO DIRECTORS IN 2018-19

Figure 1 sets out the Directors' emoluments in respect of the year ended 31 March 2019 in comparison to the year ended 31 March 2018.

FIGURE 1: PAYMENTS AND BENEFITS EARNED BY DIRECTORS IN 2018-19 (AUDITED)

	Salary/Fees		Benefits ¹		Other		AVPS ²		LTVPS ³		Pension Cash Alternative		Pension Accruals ⁴		Total	
	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Chris Jones	297,267	306,186	1,250	1,250	–	–	192,034	206,063	47,563	45,928	62,723	64,605	77,685	(16,574)	678,522	607,458
Peter Perry ⁵	260,110	288,400	1,250	1,250	2,500 ⁶	5,000	168,031	194,093	41,618	43,260	41,097	45,567	221,710*	243,927	736,316	821,497
Peter																
Bridgewater	240,220	247,427	1,250	1,250	12,000	12,000 ⁷	150,378	154,147	38,435	37,114	26,424	27,217	–	–	468,707	479,155
Alastair																
Lyons	215,392	221,900	–	–	–	–	–	–	–	–	–	–	–	–	215,392	221,900
Menna																
Richards	70,816	72,950	–	–	–	–	–	–	–	–	–	–	–	–	70,816	72,950
Tom Crick	29,925	61,650	–	–	–	–	–	–	–	–	–	–	–	–	29,925	61,650
Graham																
Edwards	59,850	61,650	–	–	–	–	–	–	–	–	–	–	–	–	59,850	61,650
Joanne																
Kenrick	59,850	61,650	–	–	–	–	–	–	–	–	–	–	–	–	59,850	61,650
Anna Walker	59,850	61,650	–	–	–	–	–	–	–	–	–	–	–	–	59,850	61,650
John Warren	59,850	61,650	–	–	–	–	–	–	–	–	–	–	–	–	59,850	61,650
Total	1,398,012	1,445,113	3,750	3,750	14,500	17,000	510,443	554,303	127,616	126,302	130,244	137,389	299,395	227,353	2,483,961	2,511,211



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REMUNERATION COMMITTEE REPORT (continued)

Notes to table:

Changes of Director: Tom Crick was appointed to the Board on 1 October 2017. The figures above are the amounts paid for his period in office.

The highest paid Director in 2018/19 was Peter Perry who received £821,497 (£736,316 in 2017/18). If changes in pension's accruals are excluded from this calculation, the highest paid Director would be Chris Jones who received £624,032 (£600,837 in 2017/18)

* The figures differ from those in the 2018 Annual Report and Accounts as they include variations in the capital transfer value of retirement benefits.

1. Taxable benefits relate to private health cover.
2. Please see determination of AVPS outcome on page 127. Performance against AVPS targets in 2018-19 resulted in a higher payment than in 2017-18.
3. Please see determination of LTVPS outcome on page 128.
4. Accrued pension benefits for 2018/19 in respect of the (closed) Defined Benefit pension scheme for Chris Jones and Peter Perry are also disclosed separately in the Pension Benefit table on page 131.
5. Peter Perry was appointed to Managing Director effective 1 October 2017 with a salary increase from £240,220 to £280,000 further increased to £288,400 with effect from 1 April 2018.
6. This represents six months of car allowance at £5,000 per annum as agreed as part of the remuneration package put in place in October 2017.
7. Represents £12,000 travel allowance.



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REMUNERATION COMMITTEE REPORT (continued)

Determination of 2018/19 AVPS Outcome

For 2018/19, the Remuneration Committee measured performance against each target as follows in the table below.

Performance in 2018/19 resulted in an AVPS award of between 62.3% and 67.3% compared with an award of between 62.6% and 64.6% for the Executive Directors in 2017/18.

FIGURE 2: AVPS 2018-19 OUTCOME (AUDITED)

Measure	Weighting	Summary of targets (% of salary)	Result	% of maximum
Customer	20%	Threshold 5%	9.4%	47%
<ul style="list-style-type: none"> Business Customer Satisfaction Customer Acceptability Reliability of Supply Properties Flooded in the Year Net Promoter Score Complaints 		Target 12.5% Stretch 20%		
Compliance	20%	Threshold 4%	13.6%	68%
<ul style="list-style-type: none"> Safety of Drinking Water Treated Used Water Preventing Pollution Leakage Asset Serviceability Asset Resilience 		Target 12.5% Stretch 20%		
Cost	20%	Threshold 4.8%	16.6%	83%
<ul style="list-style-type: none"> Total Company Totex Bad Debt 		Target 14.4% Stretch 20%		
Annual focus	20%	Threshold 4%	7.7%	38.5%
<ul style="list-style-type: none"> Reliability of Supply Customer Acceptability Treating Used Water 		Target 12% Stretch 20%		
Personal	20%		15-20%	75-100%
Total	100%		62.3-67.3%	



Annual Performance Report 2018/19

REMUNERATION COMMITTEE REPORT (continued)

Notes to table:

Personal Objectives: The personal objectives (worth up to 20% of base salary) of the Executive Directors were aligned to the delivery of Welsh Water's key strategic objectives and the delivery of the business plan for 2018/19.

- Chris Jones' primary personal objective was to submit an ambitious PR19 plan to Ofwat, balancing quality of service, customer bills, financeability and investment towards WW2050 objectives. The Committee assessed that Chris Jones had achieved an outstanding performance against his personal objectives and the pay out awarded was 20% of salary.
- Peter Bridgewater's primary personal objective was to oversee the production of a detailed 2025 cost reduction plan. The Committee assessed that Peter had exceeded expectations in relation to his primary personal objective and the pay-out awarded was 15% of salary.
- Peter Perry's primary personal objectives were to ensure the introduction of a detailed 2025 cost reduction plan and oversee the business integration of the Retail function. The Committee assessed that Peter had achieved an outstanding performance against his primary personal objectives and the pay-out awarded was 20% of salary.

Determination of 2018/19 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 2019 will not be known until later in the year. 25% of this element is payable for ranking 4th with incremental increases of 25% for ranking 3rd and above. At this time, it is estimated to be ranked fifth, 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. It should be noted that relatively small differences in SIM outcomes have led to material changes in relative position and, therefore, substantial reward variations in the recent past.

For the Customer Value element of the scheme measured from 1 April 2018 to 31 March 2019, an award of 15% of salary (50% of maximum for this element) has been made. This has been based on the Committee's determination that total value generated for LTVPS purposes in the year ended 31 March 2019 was £107m against a threshold of £89m, target of £109m (and a stretch of £119m).



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REMUNERATION COMMITTEE REPORT (continued)

Pension Benefits

For the period until 31 March 2017 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. Life assurance cover is also provided at four times Pensionable Salary for death in service, a pension is payable in the event of retirement due to ill health and a spouse's pension is 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 2014/15, 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 Scheme to accrual of Pensionable Service with effect from 31 March 2017.

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 to future service accrual 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 Scheme membership).

It was, therefore, agreed by the Committee that 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.



REMUNERATION COMMITTEE REPORT (continued)

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.

Changes in the value of pension benefits accrued by the Directors in the Scheme during the year are shown in Figure 3 on page 131, 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.



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REMUNERATION COMMITTEE REPORT (continued)

FIGURE 3: PENSION BENEFITS

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

Year ended 31 March 2018 (re-stated)

			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
Normal Retirement Age		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	60	143,505	2,870,094	2,898,795	148,824	2,976,480	–	77,685
Peter Perry	60	142,346	2,846,920	2,875,390	154,855	3,097,100	–	221,710

Year ended 31 March 2019

			Capitalised value of accrued pension at 31 March 2018	Revalued capitalised value of accrued pension at 31 March 2018 ¹	Accrued pension at 31 March 2019	Capitalised value of accrued pension at 31 March 2019	Member contributions paid during the year 2019	Pension Input Amount (net of member contributions) 2019 ²
Normal Retirement Age		Accrued pension at 31 March 2018 £	Capitalised value of accrued pension at 31 March 2018 £	Revalued capitalised value of accrued pension at 31 March 2018 ¹ £	Accrued pension at 31 March 2019 £	Capitalised value of accrued pension at 31 March 2019 £	Member contributions paid during the year 2019 £	Pension Input Amount (net of member contributions) 2019 ² £
Chris Jones	60	148,824	2,976,480	3,065,774	152,460	3,049,200	–	(16,574)
Peter Perry	60	154,855	3,097,100	3,190,013	171,697	3,433,940	–	243,927



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REMUNERATION COMMITTEE REPORT (continued)

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 (EFRBS). 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.

Benefit notes:

1. Increased by the actual CPI growth figure at the previous September — 1% for the 2018 disclosure period and 3% for 2019.
 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.

Comparison of Overall Pay and Performance

Figures 4 and 5 on page 133, show how our pay awards have compared with performance and by comparing 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.

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.



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REMUNERATION COMMITTEE REPORT (continued)

FIGURE 4: CUSTOMER RESERVES OVER NINE YEARS TO 31 MARCH 2019

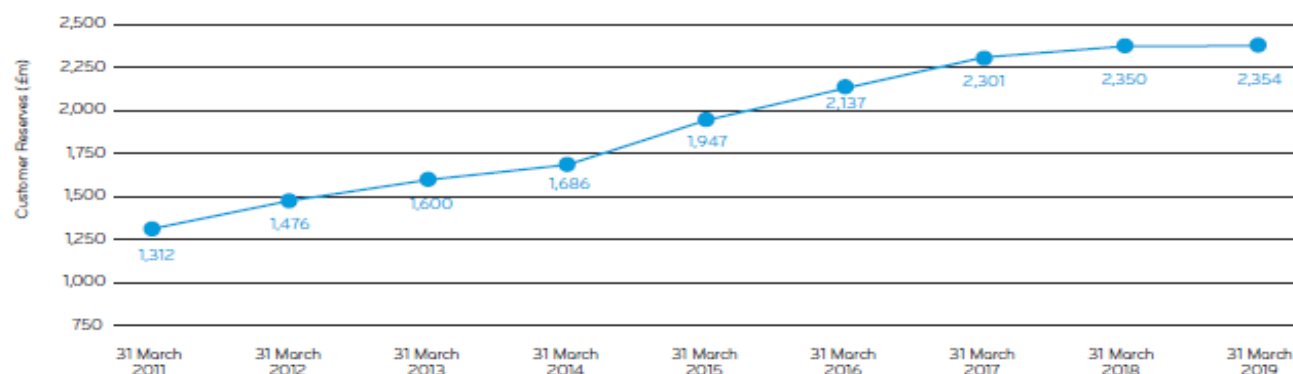


FIGURE 5: OVERALL PAY AND PERFORMANCE

	2012 £	2013 £	2014 £	2015 £	2016 £	2017 £	2018 £	2019 £
Total remuneration for Chief Executive (Chris Jones)	-	-	741,569	973,688	746,430	629,102	678,522 ¹	607,458 ²
Total remuneration for Managing Director (Nigel Annett)	677,770	590,210	709,890	-	-	-	-	-
AVPS award (Chris Jones)	-	-	51.1%	79.4%	70.3%	75.4%	64.6%	67.3%
AVPS award (Nigel Annett)	77.6%	60.6%	49.9%	-	-	-	-	-
LTVPS for AMP6 ³	-	-	-	-	65%	65.4%	26.7%	25%
LTVPS for AMP5	40.0%	50.0%	78.6%	90.6%	-	-	-	-

1. Inclusive of pension accrual value (note that this figure was shown net of pension accrual in 2017-18 Annual Report and Accounts).
2. Inclusive of (negative) pension accrual value (total remuneration excluding (negative) pension accrual value = £624,032)
3. LTVPS figures are shown as a percentage of maximum opportunity



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REMUNERATION COMMITTEE REPORT (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 6 sets out the change in total expenditure, total employee remuneration costs and Customer Reserves in 2019 compared to 2018.

FIGURE 6: RELATIVE IMPORTANCE OF SPEND ON PAY

	2018 £m	2019 £m	Change	
			£m	%
Total expenditure ¹	980.7	1,009.2	28.5	2.9%
Employee remuneration costs	150.4	159.6	9.2	6.1%
Customer Dividend	34	40	6	17.6%
Executive Director remuneration costs	1.88	1.91	0.24	1.3%

¹ Operational expenditure, capital expenditure and financing costs

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 and Colleague Reward scheme for employees are aligned to the same measures as the Executive annual variable pay scheme.

Percentage increase in the Remuneration of the Chief Executive Officer

Figure 7, on page 135, 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.



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REMUNERATION COMMITTEE REPORT (continued)

FIGURE 7: PERCENTAGE CHANGE IN THE CEO'S REMUNERATION COMPARED WITH OTHER EMPLOYEES

	Chief Executive % change from 2017-18 to 2018-19	Employees % change from 2017-18 to 2018-19
Salary	3%	3%
Benefits	0%	0%
Variable Pay	7.3%	(1.5%)

Ratio of Chief Executive to Average Employee Salary

This ratio uses the figure for total CEO salary included in Figure 1, on page 125. The average employee salary has historically been calculated using information in the financial accounts: staff costs for the year (including pension costs) divided by average monthly number of people employed. If pension accrual had been included the figure for 2018/19 would have been 13:1 (2017/18: 15:1). For 2020 reporting onwards, the revised Corporate Governance Code provides new methodology for calculating the Chief Executive to average employee pay ratio on a different basis (25th, 50th and 75th percentile). We will report using the government's preferred methodology (Method A) from 2020 onwards.

FIGURE 8: RATIO OF CHIEF EXECUTIVE TO AVERAGE EMPLOYEE SALARY

Chief Executive Remuneration: Average Employee Remuneration (excluding pension accrual)

2018-19: 13.5:1	2017-18: 13.5:1
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REMUNERATION COMMITTEE REPORT (continued)

Part 4: IMPLEMENTATION OF 2019/20

This section sets out the detail of the way that the Remuneration Committee plans to apply the Remuneration Policy in 2019/20. The Remuneration Principles (see page 113) emphasise that the remuneration structure 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, as well as being consistent with our values and policies. This will continue to govern our approach in 2019/20. Key points in relation to the implementation of the Policy in 2019/20 are:

- Salary review (see page 138);
- Under the AVPS the maximum that can be earned in 2019/20 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;
- The LTVPS currently provides that the overall maximum that can be earned per year in the AMP6 five-year regulatory period is 60% of base salary, based on stretching longer-term performance targets.

Half of the LTVPS is subject to Customer Service measures and half to Customer Value measures. At the 2019 AGM the Members will be asked to approve an increase in the maximum available opportunity for the Chief Executive role under the LTVPS from 60% to 100% of base salary, to take effect from 1 April 2019 for the financial year 2019/20. As set out above the current Chief Executive has declined to accept any award of LTVPS in excess of 60% of base salary.

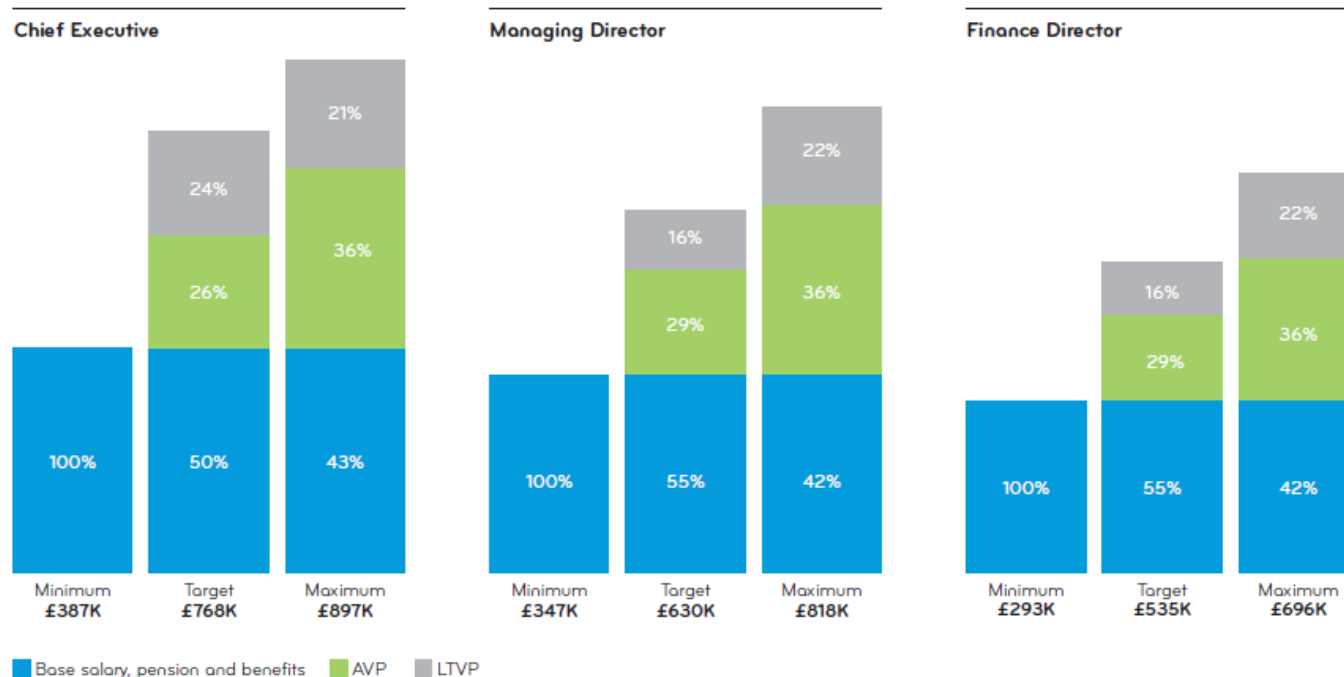


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REMUNERATION COMMITTEE REPORT (continued)

The graphs below show for each Executive Director:

- the minimum level of remuneration which may be payable. This 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 were fully achieved



NOTE: The maximum award payable to the Chief Executive under the LTVP scheme is 100% of base salary. The Chief Executive has declined to accept any award payment in excess of 60% base salary. The illustration reflects this decision.



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REMUNERATION COMMITTEE REPORT (continued)

Salary Review

Following a review in March 2019 the Remuneration Committee set the base salaries for the Executive Directors for 2019/20 (effective 1 April 2019) shown in Figure 9. For the Managing Director and Finance Director this mirrors the 2.1% increase awarded to employees on 1 April 2019 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. Following a benchmarking review of total remuneration for the Executive Directors, the base salary and total reward of the Chief Executive were determined to be significantly below benchmarked market comparators. Consequently an additional increase of 2% to offset a part of this shortfall was approved for the Chief Executive effective 1 April 2019.

FIGURE 9: EXECUTIVE DIRECTORS' BASE SALARIES

	Effective 1 April 2018	Effective 1 April 2019	% Change
Chris Jones	£306,186	£318,740	+4.1%
Peter Perry	£288,400	£294,457	+2.1%
Peter Bridgewater	£247,427	£252,623	+2.1%

Fees payable to the Chair of the Board

The fees payable to the Chair of the Board were reviewed in March 2019 and the Committee resolved that the Chair of the Board's fee should remain unchanged at £221,900 for 2019/20 in accordance with the decision taken in March 2019 to discount the Chair of the Board fee from the benchmark by 15% to recognise the non-shareholder structure of the Group. Fees and benchmark comparators will be reviewed again by the Committee in 2019/20 when the benchmark data for 2018/19 is available.



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REMUNERATION COMMITTEE REPORT (continued)

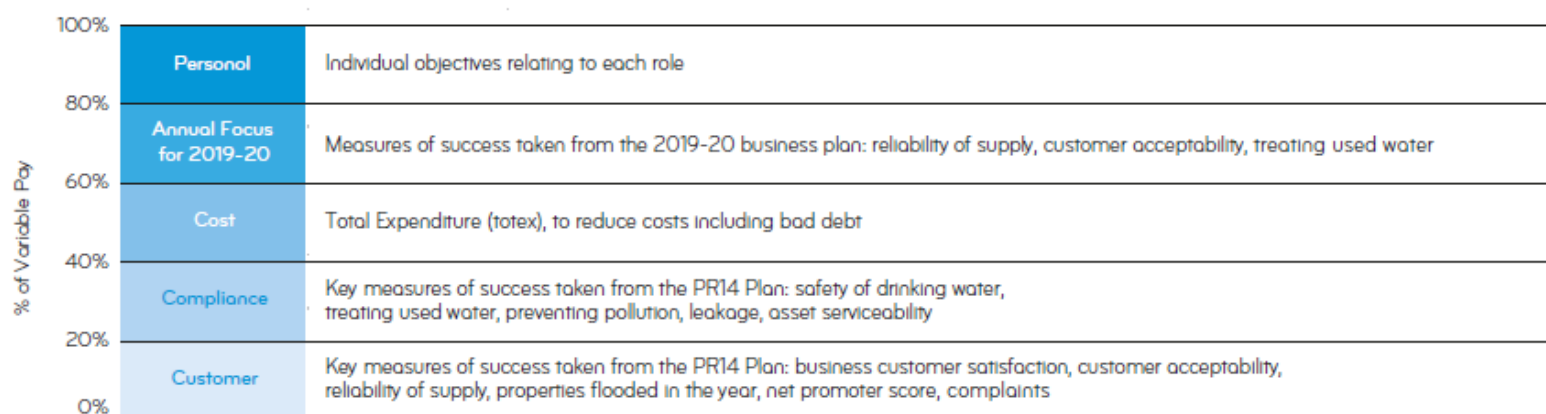
Fees payable to Non-Executive Directors

In March 2019 the Chair of the Board and Executive Directors resolved that the fees for Non-Executive Directors should remain unchanged at £61,650 for a further year in accordance with the decision taken in March 2019 to discount the fees for Non-Executive Directors from the benchmark by 15% to recognise the non-shareholder structure of the Group. The fee for the Senior Independent Director will also remain unchanged at £72,950 for a further year. Fees and benchmark comparators will be reviewed by the Chair of the Board and Non-Executive Directors in 2019/20 when the benchmark data for 2018/19 is available.

Annual Variable Pay Scheme (AVPS)

The maximum variable pay that Executive Directors can earn under the AVPS in 2019/20 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 2018/19, as illustrated in Figure 10.

FIGURE 10A: ANNUAL VARIABLE PAY SCHEME STRUCTURE 2019-20





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REMUNERATION COMMITTEE REPORT (continued)

FIGURE 10B: AVPS PERFORMANCE MEASURES

	Customer	Compliance	Cost	Annual Focus	Personal
Performance measures	Key measures of success taken from the 2019-20 Business Plan: business customer satisfaction, customer acceptability, reliability of supply, properties flooded in the year, net promoter score, complaints	Key measures of success taken from the 2019-20 Business Plan: safety of drinking water, treating used water, preventing pollution, leakage, asset serviceability	Key measures of success taken from the 2019-20 Business Plan: totex, bad debt	Measures of success taken from the 2019-20 Business Plan: reliability of supply, customer acceptability, treating used water	Individual objectives relating to each role
Rationale for selected measures	Linked to the 2019-20 Business Plan	Linked to the 2019-20 Business Plan	Linked to the 2019-20 Business Plan	Linked to the 2019-20 Business Plan	Linked to the 2019-20 Business Plan
Performance Period	One year	One year	One year	One year	One year
Performance target	6 measures with total maximum 20% award: – 25% of award payable for achieving threshold performance – 62.5% ¹ 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 – 62.5% ¹ of award payable for achieving target performance – 100% of award payable for achieving stretch performance	2 measures with maximum 20% award: – 24% of award payable for achieving threshold performance – 72% of award payable for achieving target performance – 100% of award payable for achieving stretch performance	3 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

1. The new guidelines from ISS for listed companies limit target bonus to no more than 50% of maximum; although the targets above are higher than this, Executive Director salaries are below median and the Committee is committed to stretching targets and avoidance of extreme or volatile incentive outcomes. The design of the AVPS includes 16 independent measures which makes an extreme outcome less likely.



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REMUNERATION COMMITTEE REPORT (continued)

Long Term Variable Pay Schemes (LTVPS)

The maximum variable pay that Executive Directors can earn under the LTVPS is 100% of base salary for the role of Chief Executive and 60% of base salary for the Managing Director and Finance Director¹.

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:

- 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 Transfers to 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; and
- 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 informed by, and rewards, Welsh Water's performance relative to similar companies in the sector. SIM was previously 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 Company reported data on customer written complaints and unwanted calls. Ofwat has ceased to use the SIM measure of customer service from April 2019 and will instead use another measure of customer service for household customers, C-MeX (or Customer Measure of Experience). However, for this final year of AMP6 a "proxy SIM" will be calculated by Ofwat for the period 2019/20, and it is expected that this will provide the best comparison with previous years. The Committee therefore resolved in March 2019 to apply the proxy SIM value under the LTVPS for the final year of the scheme.

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

The performance targets under each of the LTVPS awards are described more fully in Figure 11.

¹ An increase in maximum opportunity from 60% to 100% of base salary is being proposed for the role of Chief Executive. However the current Chief Executive has declined to accept any award in excess of 60% of base salary.



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REMUNERATION COMMITTEE REPORT (continued)

FIGURE 11: LTVPS PERFORMANCE MEASURES

	Customer Service	Customer Value ¹
Performance measures	Previously measured by reference to Ofwat's SIM measure. For 2019-20 the Committee resolved to apply Ofwat's proxy 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 ending with the financial year in which an award is made.	1 April 2015 to 31 March 2020 – as shown in Figure 5 below.
Performance target²	50% of total LTVPS maximum opportunity. Out of UK's 11 water and sewerage companies: <ul style="list-style-type: none"> – 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. 	50% of total LTVPS maximum opportunity if the value created is in line with the targets which are set each year but set three years in advance: <ul style="list-style-type: none"> – 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.

1. The customer value targets may be amended in certain circumstances at the discretion of the Committee. 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. 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

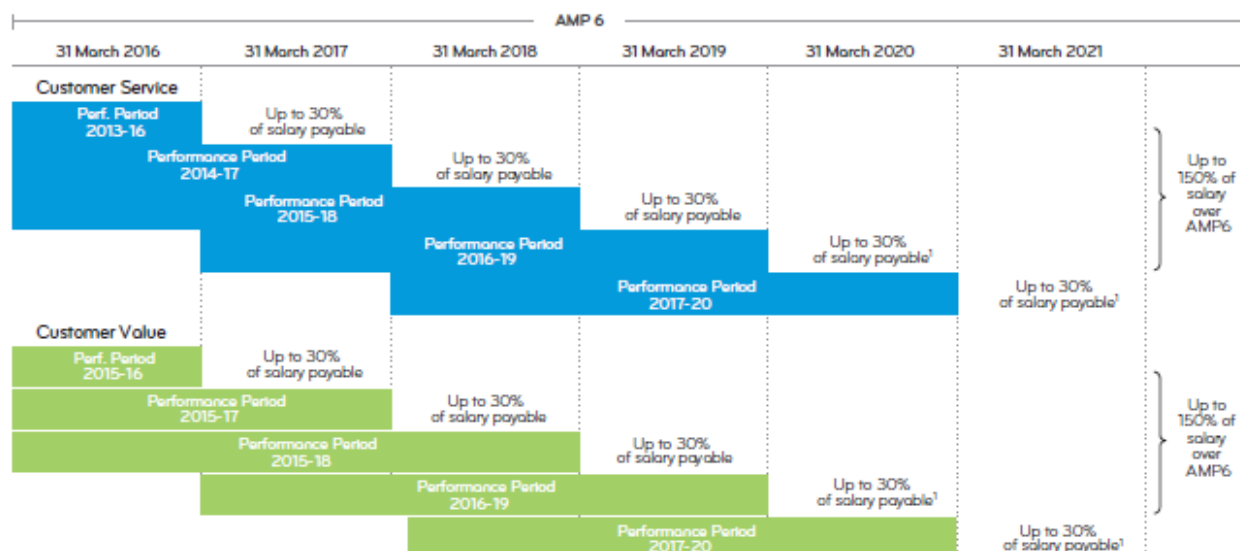


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REMUNERATION COMMITTEE REPORT (continued)

The period over which performance is determined and the potential payment dates over the regulatory period are illustrated in schematic Figure 12. Details of payments made under the LTVPS for 2018/19 are set out on page 124.

FIGURE 12: LTVPS PERFORMANCE PERIOD



Discretions 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.

The scheme rules allow for clawback of variable pay from Directors, either as the withdrawal of an award before it has vested, or as clawback after awards have vested (see further detail on page 119).



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REMUNERATION COMMITTEE REPORT (continued)

Oversight of Remuneration Policies for the Wider Workforce

As part of its ongoing review of policies, the Committee takes account of remuneration across the wider workforce as a whole, and the appropriateness of targets, while recognising that the determination and implementation of pay policies for the wider workforce is a matter for the Executive team.

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 2019 are as follows:

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

Copies of the service contracts are available from the Company Secretary. For more information on the roles and responsibilities of the Board of Directors, please see page 62 in the 2019 Glas Cymru Annual Report and Accounts.

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 Chair of the Board of the Company. The Chief Executive and the People and Change Director attend meetings of the Remuneration Committee by invitation (except where their own remuneration is discussed). The Remuneration Committee was convened on 8 occasions in 2018/19.

During 2018/19, the Committee received independent advice from Mercer. Mercer is a signatory to the Remuneration Consultants Group Code of Conduct and any advice given is governed by the Code. The Committee is satisfied that the advice received was independent and objective. The fees payable to Mercer for the period 2018/19 totalled £93,000