

4J - Atypical expenditure by business unit - Wholesale water

Southern Water

For the 12 months ended 31 March 2019

Line description	Units	DPs	Water resources		Network+				Total	
			Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution		
A Operating expenditure (excl. atypicals)										
4J.1 Power	£m	3	0.000	3.787	0.000	0.000	8.649	3.413	15.849	
4J.2 Income treated as negative expenditure	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
4J.3 Abstraction charges/ discharge consents	£m	3	4.622	0.000	0.000	0.000	0.061	0.000	4.683	
4J.4 Bulk supply	£m	3	0.000	0.000	0.000	0.000	0.000	0.334	0.334	
Other operating expenditure										
4J.5 - Renewals expensed in year (Infrastructure)	£m	3	0.000	0.000	0.000	0.000	0.000	17.977	17.977	
4J.6 - Renewals expensed in year (Non-Infrastructure)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
4J.7 - Other operating expenditure excluding renewals	£m	3	0.454	5.619	0.240	0.263	24.255	18.959	49.790	
4J.8 Local authority and Cumulo rates	£m	3	0.000	0.955	0.131	0.000	1.632	9.641	12.359	
4J.9 Total operating expenditure (excluding third party services)	£m	3	5.076	10.361	0.371	0.263	34.597	50.324	100.992	
4J.10 Third party services	£m	3	0.290	0.388	0.000	0.000	1.133	1.255	3.066	
4J.11 Total operating expenditure	£m	3	5.366	10.749	0.371	0.263	35.730	51.579	104.058	
B Capital expenditure (excl. atypicals)										
4J.12 Maintaining the long term capability of the assets - infra	£m	3	0.000	0.301	-0.051	0.000	0.001	7.717	7.968	
4J.13 Maintaining the long term capability of the assets - non-infra	£m	3	0.185	6.501	0.000	0.000	42.411	26.033	75.130	
4J.14 Other capital expenditure - infra	£m	3	0.000	0.811	-0.031	0.000	0.363	13.597	14.740	
4J.15 Other capital expenditure - non-infra	£m	3	0.494	3.647	0.000	0.000	14.542	3.381	22.064	
4J.16 Infrastructure network reinforcement	£m	3	0.000	0.000	0.000	0.000	0.000	0.273	0.273	
4J.17 Total gross capital expenditure excluding third party services	£m	3	0.679	11.260	-0.082	0.000	57.317	51.001	120.175	
4J.18 Third party services	£m	3	0.108	1.589	0.000	0.000	1.005	0.678	3.380	
4J.19 Total gross capital expenditure	£m	3	0.787	12.849	-0.082	0.000	58.322	51.679	123.555	
4J.20 Grants and contributions	£m	3	0.000	0.256	0.000	0.000	1.416	7.652	9.324	
4J.21 Totex	£m	3	6.153	23.342	0.289	0.263	92.636	95.606	218.289	
C Cash expenditure (excl. atypicals)										
4J.22 Pension deficit recovery payments	£m	3	0.000	0.177	0.000	0.021	2.231	2.415	4.844	
4J.23 Other cash items	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
4J.24 Totex including cash items	£m	3	6.153	23.519	0.289	0.284	94.867	98.021	223.133	
D Atypical expenditure										
4J.25 Cooks Castle - late reporting	£m	3	0.000	0.000	0.000	0.000	0.000	0.110	0.110	
4J.35 Total atypical expenditure	£m	3	0.000	0.000	0.000	0.000	0.000	0.110	0.110	
E Total expenditure										
4J.36 Total expenditure	£m	3	6.153	23.519	0.289	0.284	94.867	98.131	223.243	

4K - Atypical expenditure by business unit - Wholesale wastewater

Southern Water

For the 12 months ended 31 March 2019

Line description	Units	DPs	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	
A Operating expenditure (excl. atypicals)											
4K.1 Power	£m	3	8.895	1.917	1.917	18.370	0.672	0.026	-2.452	0.000	29.345
4K.2 Income treated as negative expenditure	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	-3.045	0.000	-3.045
4K.3 Discharge Consents	£m	3	0.701	0.153	0.153	2.948	0.060	0.000	0.016	0.000	4.031
4K.4 Bulk discharge	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Other operating expenditure											
4K.5 - Renewals expensed in year (Infrastructure)	£m	3	15.247	3.323	3.323	0.000	0.000	0.000	0.000	0.000	21.893
4K.6 - Renewals expensed in year (Non-Infrastructure)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.7 - Other operating expenditure excluding renewals	£m	3	26.202	4.221	4.221	40.800	1.224	4.837	16.367	4.976	102.848
4K.8 Local authority and Cumulo rates	£m	3	0.063	0.014	0.014	12.914	0.361	0.000	1.390	0.000	14.756
4K.9 Total operating expenditure (excluding third party services)	£m	3	51.108	9.628	9.628	75.032	2.317	4.863	12.276	4.976	169.828
4K.10 Third party services											
4K.10 Third party services	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.11 Total operating expenditure	£m	3	51.108	9.628	9.628	75.032	2.317	4.863	12.276	4.976	169.828
B Capital expenditure (excl. atypicals)											
4K.12 Maintaining the long term capability of the assets - infra	£m	3	15.112	3.294	3.294	0.160	0.000	0.000	0.000	0.000	21.860
4K.13 Maintaining the long term capability of the assets - non-infra	£m	3	10.646	2.321	2.321	116.193	0.000	0.000	16.933	0.000	148.414
4K.14 Other capital expenditure - infra	£m	3	34.335	7.484	7.484	2.850	0.000	0.000	0.000	0.000	52.153
4K.15 Other capital expenditure - non-infra	£m	3	3.869	0.843	0.843	47.471	0.000	0.000	6.133	0.000	59.159
4K.16 Infrastructure network reinforcement	£m	3	6.329	1.380	1.380	0.011	0.000	0.000	0.000	0.000	9.100
4K.17 Total gross capital expenditure excluding third party services	£m	3	70.291	15.322	15.322	166.685	0.000	0.000	23.066	0.000	290.686
4K.18 Third party services	£m	3	2.282	0.498	0.498	0.907	0.000	0.000	0.000	0.000	4.185
4K.19 Total gross capital expenditure	£m	3	72.573	15.820	15.820	167.592	0.000	0.000	23.066	0.000	294.871
4K.20 Grants and contributions	£m	3	8.964	1.954	1.954	0.773	0.000	0.000	0.000	0.000	13.645
4K.21 Totex	£m	3	114.717	23.494	23.494	241.851	2.317	4.863	35.342	4.976	451.054
C Cash expenditure (excl. atypicals)											
4K.22 Pension deficit recovery payments	£m	3	3.183	0.531	0.531	4.980	0.553	0.000	0.792	0.000	10.570
4K.23 Other cash items	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4K.24 Totex including cash items	£m	3	117.900	24.025	24.025	246.831	2.870	4.863	36.134	4.976	461.624
D Atypical expenditure											
4K.25 Ofwat and EA investigations including Legal Defence costs	£m	3	0.000	0.000	0.000	3.706	0.000	0.000	0.000	0.000	3.706
4K.26 Ofwat Section 19 Penalty	£m	3	0.000	0.000	0.000	3.000	0.000	0.000	0.000	0.000	3.000
4K.35 Total atypical expenditure	£m	3	0.000	0.000	0.000	6.706	0.000	0.000	0.000	0.000	6.706
E Total expenditure											
4K.36 Total expenditure	£m	3	117.900	24.025	24.025	253.537	2.870	4.863	36.134	4.976	468.330

4L - Enhancement expenditure by purpose - Wholesale water

For the 12 months ended 31 March 2019

Line description	Units	DPs	Expenditure in report year						
			Water resources		Network+				
			Abstraction licences	Raw water abstraction	Raw water transport	Raw water storage	Water treatment	Treated water distribution	
A Enhancement expenditure by purpose									
4L.1 NEP - Making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs)	£m	3	0.184	2.013	0.000	0.000	0.365	0.378	
4L.2 NEP - Eels Regulations (measures at intakes)	£m	3	0.000	0.886	0.000	0.000	0.000	0.000	
4L.3 NEP - Invasive Non Native Species	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.4 Addressing low pressure	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.5 Improving taste / odour / colour	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.6 Meeting lead standards	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.7 Supply side enhancements to the supply/demand balance (dry year critical / peak conditions)	£m	3	0.000	0.000	-0.031	0.000	0.000	-0.005	
4L.8 Supply side enhancements to the supply/demand balance (dry year annual average conditions)	£m	3	0.310	0.948	0.000	0.000	0.210	2.173	
4L.9 Demand side enhancements to the supply/demand balance (dry year critical / peak conditions)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.10 Demand side enhancements to the supply/demand balance (dry year annual average conditions)	£m	3	0.000	0.000	0.000	0.000	0.000	0.308	
4L.11 New developments	£m	3	0.000	0.000	0.000	0.000	0.000	8.652	
4L.12 New connections element of new development (CPs, meters)	£m	3	0.000	0.000	0.000	0.000	0.000	3.017	
4L.13 Investment to address raw water deterioration (THM, nitrates, Crypto, pesticides, others)	£m	3	0.000	0.611	0.000	0.000	9.213	0.000	
4L.14 Resilience	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.15 SEMD	£m	3	0.000	0.000	0.000	0.000	5.117	2.728	
4L.16 NEP - Drinking Water Protected Areas (schemes)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.17 NEP - Water Framework Directive measure	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.18 NEP - Investigations	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.19 Improvements to river flows	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.20 Metering (excluding cost of providing metering to new service connections) - meters requested by optants	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.21 Metering (excluding cost of providing metering to new service connections)- meters introduced by companies	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.22 Metering (excluding cost of providing metering to new service connections) - other	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	
4L.38 Total enhancement capital expenditure	£m	3	0.494	4.458	-0.031	0.000	14.905	17.251	

4L - Enhancement expenditure by purpose - Wholesale water

For the 12 months ended 31 March 2019

Line description	Units	DPs	Total
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A	Enhancement expenditure by purpose			
4L.1	NEP - Making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs)	£m	3	2.940
4L.2	NEP - Eels Regulations (measures at intakes)	£m	3	0.886
4L.3	NEP - Invasive Non Native Species	£m	3	0.000
4L.4	Addressing low pressure	£m	3	0.000
4L.5	Improving taste / odour / colour	£m	3	0.000
4L.6	Meeting lead standards	£m	3	0.000
4L.7	Supply side enhancements to the supply/demand balance (dry year critical / peak conditions)	£m	3	-0.036
4L.8	Supply side enhancements to the supply/demand balance (dry year annual average conditions)	£m	3	3.641
4L.9	Demand side enhancements to the supply/demand balance (dry year critical / peak conditions)	£m	3	0.000
4L.10	Demand side enhancements to the supply/demand balance (dry year annual average conditions)	£m	3	0.308
4L.11	New developments	£m	3	8.652
4L.12	New connections element of new development (CPs, meters)	£m	3	3.017
4L.13	Investment to address raw water deterioration (THM, nitrates, Crypto, pesticides, others)	£m	3	9.824
4L.14	Resilience	£m	3	0.000
4L.15	SEMD	£m	3	7.845
4L.16	NEP - Drinking Water Protected Areas (schemes)	£m	3	0.000
4L.17	NEP - Water Framework Directive measure	£m	3	0.000
4L.18	NEP - Investigations	£m	3	0.000
4L.19	Improvements to river flows	£m	3	0.000
4L.20	Metering (excluding cost of providing metering to new service connections) - meters requested by optants	£m	3	0.000
4L.21	Metering (excluding cost of providing metering to new service connections)- meters introduced by companies	£m	3	0.000
4L.22	Metering (excluding cost of providing metering to new service connections) - other	£m	3	0.000
4L.38	Total enhancement capital expenditure	£m	3	37.077

4L - Enhancement expenditure by purpose - Wholesale water

For the 12 months ended 31 March 2019

Line description	Units	DPs	Cumulative expenditure on schemes completed in the report year						
			Water resources		Raw water transport	Network+			
			Abstraction licences	Raw water abstraction			Water treatment	Treated water distribution	
A Enhancement expenditure by purpose									
4L.1 NEP - Making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs)	£m	3	0.000	0.541	0.000	0.000	0.000	0.000	2.068
4L.2 NEP - Eels Regulations (measures at intakes)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.3 NEP - Invasive Non Native Species	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.4 Addressing low pressure	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.5 Improving taste / odour / colour	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.6 Meeting lead standards	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.7 Supply side enhancements to the supply/demand balance (dry year critical / peak conditions)	£m	3	0.000	0.000	-0.031	0.000	0.000	0.000	-0.006
4L.8 Supply side enhancements to the supply/demand balance (dry year annual average conditions)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.9 Demand side enhancements to the supply/demand balance (dry year critical / peak conditions)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.10 Demand side enhancements to the supply/demand balance (dry year annual average conditions)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.308
4L.11 New developments	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	8.652
4L.12 New connections element of new development (CPs, meters)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	3.017
4L.13 Investment to address raw water deterioration (THM, nitrates, Crypto, pesticides, others)	£m	3	0.000	0.000	0.000	0.000	43.592	0.000	0.000
4L.14 Resilience	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.15 SEMD	£m	3	0.000	0.000	0.000	0.000	9.188	0.000	0.000
4L.16 NEP - Drinking Water Protected Areas (schemes)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.17 NEP - Water Framework Directive measure	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.18 NEP - Investigations	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.19 Improvements to river flows	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.20 Metering (excluding cost of providing metering to new service connections) - meters requested by optants	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.21 Metering (excluding cost of providing metering to new service connections)- meters introduced by companies	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.22 Metering (excluding cost of providing metering to new service connections) - other	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4L.38 Total enhancement capital expenditure	£m	3	0.000	0.541	-0.031	0.000	52.780	0.000	14.039

4L - Enhancement expenditure by purpose - Wholesale water

For the 12 months ended 31 March 2019

Line description	Units	DPs	Total
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A	Enhancement expenditure by purpose			
4L.1	NEP - Making ecological improvements at abstractions (Habitats Directive, SSSI, NERC, BAPs)	£m	3	2.609
4L.2	NEP - Eels Regulations (measures at intakes)	£m	3	0.000
4L.3	NEP - Invasive Non Native Species	£m	3	0.000
4L.4	Addressing low pressure	£m	3	0.000
4L.5	Improving taste / odour / colour	£m	3	0.000
4L.6	Meeting lead standards	£m	3	0.000
4L.7	Supply side enhancements to the supply/demand balance (dry year critical / peak conditions)	£m	3	-0.037
4L.8	Supply side enhancements to the supply/demand balance (dry year annual average conditions)	£m	3	0.000
4L.9	Demand side enhancements to the supply/demand balance (dry year critical / peak conditions)	£m	3	0.000
4L.10	Demand side enhancements to the supply/demand balance (dry year annual average conditions)	£m	3	0.308
4L.11	New developments	£m	3	8.652
4L.12	New connections element of new development (CPs, meters)	£m	3	3.017
4L.13	Investment to address raw water deterioration (THM, nitrates, Crypto, pesticides, others)	£m	3	43.592
4L.14	Resilience	£m	3	0.000
4L.15	SEMD	£m	3	9.188
4L.16	NEP - Drinking Water Protected Areas (schemes)	£m	3	0.000
4L.17	NEP - Water Framework Directive measure	£m	3	0.000
4L.18	NEP - Investigations	£m	3	0.000
4L.19	Improvements to river flows	£m	3	0.000
4L.20	Metering (excluding cost of providing metering to new service connections) - meters requested by optants	£m	3	0.000
4L.21	Metering (excluding cost of providing metering to new service connections)- meters introduced by companies	£m	3	0.000
4L.22	Metering (excluding cost of providing metering to new service connections) - other	£m	3	0.000
4L.38	Total enhancement capital expenditure	£m	3	67.329

4M - Enhancement expenditure by purpose - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Units	DPs	Expenditure in report year							
			Network+Sewage Collection			Network+Sewage Treatment		Sludge		
			Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	
A	Enhancement capital expenditure by purpose									
4M.1	First time sewerage (s101A)	£m	3	3.742	0.816	0.816	1.207	0.000	0.000	0.000
4M.2	Sludge enhancement (quality)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.3	Sludge enhancement (growth)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	6.133
4M.4	NEP - Conservation drivers	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.5	NEP - Eels Regulations (measures at outfalls)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.6	NEP - Event Duration Monitoring at intermittent discharges	£m	3	0.000	0.000	0.000	1.632	0.000	0.000	0.000
4M.7	NEP - Flow monitoring at sewage treatment works	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.8	NEP - Monitoring of pass forward flows at CSOs	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.9	NEP - Schemes to increase flow to full treatment	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.10	NEP - Schemes to increase storm tank capacity	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.11	NEP - Storage schemes to reduce spill frequency at CSOs, storm tanks, etc	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.12	NEP - Chemicals monitoring/ investigations/ options appraisals	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.13	NEP - National phosphorus removal technology investigations	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.14	NEP - Groundwater schemes	£m	3	7.296	1.591	1.591	0.000	0.000	0.000	0.000
4M.15	NEP - Investigations	£m	3	0.002	0.000	0.000	0.006	0.000	0.000	0.000
4M.16	NEP - Nutrients (N removal)	£m	3	0.025	0.005	0.005	7.336	0.000	0.000	0.000
4M.17	NEP - Nutrients (P removal at activated sludge STWs)	£m	3	0.000	0.000	0.000	2.923	0.000	0.000	0.000
4M.18	NEP - Nutrients (P removal at filter bed STWs)	£m	3	0.136	0.030	0.030	18.419	0.000	0.000	0.000
4M.19	NEP - Reduction of sanitary parameters	£m	3	0.000	0.000	0.000	3.172	0.000	0.000	0.000
4M.20	NEP - UV disinfection (or similar)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.21	NEP - Discharge relocation	£m	3	0.000	0.000	0.000	0.035	0.000	0.000	0.000
4M.22	NEP - Flow 1 schemes	£m	3	0.000	0.000	0.000	0.333	0.000	0.000	0.000
4M.23	Odour	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.24	New development and growth	£m	3	13.927	3.036	3.036	0.040	0.000	0.000	0.000
4M.25	Growth at sewage treatment works (excluding sludge treatment)	£m	3	0.002	0.000	0.000	4.539	0.000	0.000	0.000
4M.26	Resilience	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.27	SEMD	£m	3	0.000	0.000	0.000	3.318	0.000	0.000	0.000
4M.28	Reduce flooding risk for properties	£m	3	1.678	0.366	0.366	0.002	0.000	0.000	0.000
4M.29	Transferred private sewers and pumping stations	£m	3	2.887	0.629	0.629	0.000	0.000	0.000	0.000
4M.30	WFD Manage uncertainty Special case	£m	3	0.038	0.008	0.008	4.540	0.000	0.000	0.000
4M.31	AMP 6 Bathing Water enhancement	£m	3	8.903	1.941	1.941	0.010	0.000	0.000	0.000
4M.32	NEP Bathing Water	£m	3	-0.036	-0.008	-0.008	0.000	0.000	0.000	0.000
4M.33	Woolston part 2	£m	3	0.000	0.000	0.000	2.756	0.000	0.000	0.000
4M.34	Pollution Resilience	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.35	Bathing Water Enhancement Programme	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.36	Adopted Sewers (Growth gross up)	£m	3	5.933	1.293	1.293	0.000	0.000	0.000	0.000
4M.37	AMP7 WINEP3 Chemicals NDLS Permits	£m	3	0.000	0.000	0.000	0.064	0.000	0.000	0.000
4M.45	Total enhancement capital expenditure	£m	3	44.533	9.707	9.707	50.332	0.000	0.000	6.133

4M - Enhancement expenditure by purpose - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Units	DPs		
			Sludge disposal	Total

A	Enhancement capital expenditure by purpose				
4M.1	First time sewerage (s101A)	£m	3	0.000	6.581
4M.2	Sludge enhancement (quality)	£m	3	0.000	0.000
4M.3	Sludge enhancement (growth)	£m	3	0.000	6.133
4M.4	NEP - Conservation drivers	£m	3	0.000	0.000
4M.5	NEP - Eels Regulations (measures at outfalls)	£m	3	0.000	0.000
4M.6	NEP - Event Duration Monitoring at intermittent discharges	£m	3	0.000	1.632
4M.7	NEP - Flow monitoring at sewage treatment works	£m	3	0.000	0.000
4M.8	NEP - Monitoring of pass forward flows at CSOs	£m	3	0.000	0.000
4M.9	NEP - Schemes to increase flow to full treatment	£m	3	0.000	0.000
4M.10	NEP - Schemes to increase storm tank capacity	£m	3	0.000	0.000
4M.11	NEP - Storage schemes to reduce spill frequency at CSOs, storm tanks, etc	£m	3	0.000	0.000
4M.12	NEP - Chemicals monitoring/ investigations/ options appraisals	£m	3	0.000	0.000
4M.13	NEP - National phosphorus removal technology investigations	£m	3	0.000	0.000
4M.14	NEP - Groundwater schemes	£m	3	0.000	10.478
4M.15	NEP - Investigations	£m	3	0.000	0.008
4M.16	NEP - Nutrients (N removal)	£m	3	0.000	7.371
4M.17	NEP - Nutrients (P removal at activated sludge STWs)	£m	3	0.000	2.923
4M.18	NEP - Nutrients (P removal at filter bed STWs)	£m	3	0.000	18.615
4M.19	NEP - Reduction of sanitary parameters	£m	3	0.000	3.172
4M.20	NEP - UV disinfection (or similar)	£m	3	0.000	0.000
4M.21	NEP - Discharge relocation	£m	3	0.000	0.035
4M.22	NEP - Flow 1 schemes	£m	3	0.000	0.333
4M.23	Odour	£m	3	0.000	0.000
4M.24	New development and growth	£m	3	0.000	20.039
4M.25	Growth at sewage treatment works (excluding sludge treatment)	£m	3	0.000	4.541
4M.26	Resilience	£m	3	0.000	0.000
4M.27	SEMD	£m	3	0.000	3.318
4M.28	Reduce flooding risk for properties	£m	3	0.000	2.412
4M.29	Transferred private sewers and pumping stations	£m	3	0.000	4.145
4M.30	WFD Manage uncertainty Special case	£m	3	0.000	4.594
4M.31	AMP 6 Bathing Water enhancement	£m	3	0.000	12.795
4M.32	NEP Bathing Water	£m	3	0.000	-0.052
4M.33	Woolston part 2	£m	3	0.000	2.756
4M.34	Pollution Resilience	£m	3	0.000	0.000
4M.35	Bathing Water Enhancement Programme	£m	3	0.000	0.000
4M.36	Adopted Sewers (Growth gross up)	£m	3	0.000	8.519
4M.37	AMP7 WINEP3 Chemicals NDLS Permits	£m	3	0.000	0.064
4M.45	Total enhancement capital expenditure	£m	3	0.000	120.412

4M - Enhancement expenditure by purpose - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Units	DPs	Cumulative expenditure on schemes completed in the report year						
			Network+Sewage Collection			Network+Sewage Treatment		Sludge	
			Foul		Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment

A	Enhancement capital expenditure by purpose									
4M.1	First time sewerage (s101A)	£m	3	16.047	0.000	0.000	0.000	0.000	0.000	0.000
4M.2	Sludge enhancement (quality)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.3	Sludge enhancement (growth)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	2.898
4M.4	NEP - Conservation drivers	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.5	NEP - Eels Regulations (measures at outfalls)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.6	NEP - Event Duration Monitoring at intermittent discharges	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.7	NEP - Flow monitoring at sewage treatment works	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.8	NEP - Monitoring of pass forward flows at CSOs	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.9	NEP - Schemes to increase flow to full treatment	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.10	NEP - Schemes to increase storm tank capacity	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.11	NEP - Storage schemes to reduce spill frequency at CSOs, storm tanks, etc	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.12	NEP - Chemicals monitoring/ investigations/ options appraisals	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.13	NEP - National phosphorus removal technology investigations	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.14	NEP - Groundwater schemes	£m	3	0.101	0.000	0.000	0.000	0.000	0.000	0.000
4M.15	NEP - Investigations	£m	3	0.003	0.000	0.000	0.006	0.000	0.000	0.000
4M.16	NEP - Nutrients (N removal)	£m	3	0.202	0.000	0.000	2.252	0.000	0.000	0.000
4M.17	NEP - Nutrients (P removal at activated sludge STWs)	£m	3	0.000	0.000	0.000	4.705	0.000	0.000	0.000
4M.18	NEP - Nutrients (P removal at filter bed STWs)	£m	3	0.000	0.000	0.000	0.067	0.000	0.000	0.000
4M.19	NEP - Reduction of sanitary parameters	£m	3	0.000	0.000	0.000	8.295	0.000	0.000	0.000
4M.20	NEP - UV disinfection (or similar)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.21	NEP - Discharge relocation	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.22	NEP - Flow 1 schemes	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.23	Odour	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.24	New development and growth	£m	3	15.117	0.000	0.000	0.040	0.000	0.000	0.000
4M.25	Growth at sewage treatment works (excluding sludge treatment)	£m	3	0.003	0.000	0.000	12.095	0.000	0.000	0.000
4M.26	Resilience	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.27	SEMD	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.28	Reduce flooding risk for properties	£m	3	2.374	0.000	0.000	0.000	0.000	0.000	0.000
4M.29	Transferred private sewers and pumping stations	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.30	WFD Manage uncertainty Special case	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.31	AMP 6 Bathing Water enhancement	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.32	NEP Bathing Water	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.33	Woolston part 2	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.34	Pollution Resilience	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.35	Bathing Water Enhancement Programme	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.36	Adopted Sewers (Growth gross up)	£m	3	8.519	0.000	0.000	0.000	0.000	0.000	0.000
4M.37	AMP7 WINEP3 Chemicals NDLS Permits	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4M.45	Total enhancement capital expenditure	£m	3	42.366	0.000	0.000	27.460	0.000	0.000	2.898

4M - Enhancement expenditure by purpose - Wholesale wastewater

Southern Water

For the 12 months ended 31 March 2019

Line description	Units	DPs		
			Sludge disposal	Total

A	Enhancement capital expenditure by purpose				
4M.1	First time sewerage (s101A)	£m	3	0.000	16.047
4M.2	Sludge enhancement (quality)	£m	3	0.000	0.000
4M.3	Sludge enhancement (growth)	£m	3	0.000	2.898
4M.4	NEP - Conservation drivers	£m	3	0.000	0.000
4M.5	NEP - Eels Regulations (measures at outfalls)	£m	3	0.000	0.000
4M.6	NEP - Event Duration Monitoring at intermittent discharges	£m	3	0.000	0.000
4M.7	NEP - Flow monitoring at sewage treatment works	£m	3	0.000	0.000
4M.8	NEP - Monitoring of pass forward flows at CSOs	£m	3	0.000	0.000
4M.9	NEP - Schemes to increase flow to full treatment	£m	3	0.000	0.000
4M.10	NEP - Schemes to increase storm tank capacity	£m	3	0.000	0.000
4M.11	NEP - Storage schemes to reduce spill frequency at CSOs, storm tanks, etc	£m	3	0.000	0.000
4M.12	NEP - Chemicals monitoring/ investigations/ options appraisals	£m	3	0.000	0.000
4M.13	NEP - National phosphorus removal technology investigations	£m	3	0.000	0.000
4M.14	NEP - Groundwater schemes	£m	3	0.000	0.101
4M.15	NEP - Investigations	£m	3	0.000	0.009
4M.16	NEP - Nutrients (N removal)	£m	3	0.000	2.454
4M.17	NEP - Nutrients (P removal at activated sludge STWs)	£m	3	0.000	4.705
4M.18	NEP - Nutrients (P removal at filter bed STWs)	£m	3	0.000	0.067
4M.19	NEP - Reduction of sanitary parameters	£m	3	0.000	8.295
4M.20	NEP - UV disinfection (or similar)	£m	3	0.000	0.000
4M.21	NEP - Discharge relocation	£m	3	0.000	0.000
4M.22	NEP - Flow 1 schemes	£m	3	0.000	0.000
4M.23	Odour	£m	3	0.000	0.000
4M.24	New development and growth	£m	3	0.000	15.157
4M.25	Growth at sewage treatment works (excluding sludge treatment)	£m	3	0.000	12.098
4M.26	Resilience	£m	3	0.000	0.000
4M.27	SEMD	£m	3	0.000	0.000
4M.28	Reduce flooding risk for properties	£m	3	0.000	2.374
4M.29	Transferred private sewers and pumping stations	£m	3	0.000	0.000
4M.30	WFD Manage uncertainty Special case	£m	3	0.000	0.000
4M.31	AMP 6 Bathing Water enhancement	£m	3	0.000	0.000
4M.32	NEP Bathing Water	£m	3	0.000	0.000
4M.33	Woolston part 2	£m	3	0.000	0.000
4M.34	Pollution Resilience	£m	3	0.000	0.000
4M.35	Bathing Water Enhancement Programme	£m	3	0.000	0.000
4M.36	Adopted Sewers (Growth gross up)	£m	3	0.000	8.519
4M.37	AMP7 WINEP3 Chemicals NDLS Permits	£m	3	0.000	0.000
4M.45	Total enhancement capital expenditure	£m	3	0.000	72.724

4N - Sewage treatment - Functional expenditure

Southern Water

For the 12 months ended 31 March 2019

Line description	Unit	DPs	Network+
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A		Costs of STWs in size bands 1 to 5		
4N.1	Direct costs of STWs in size band 1	£000	3	2247.058
4N.2	Direct costs of STWs in size band 2	£000	3	1325.509
4N.3	Direct costs of STWs in size band 3	£000	3	7015.126
4N.4	Direct costs of STWs in size band 4	£000	3	10548.612
4N.5	Direct costs of STWs in size band 5	£000	3	6895.112
4N.6	General & support costs of STWs in size bands 1 to 5	£000	3	6136.085
4N.7	Functional expenditure of STWs in size bands 1 to 5	£000	3	34167.502

B		Costs of STWs in size band 6		
4N.8	Service charges for STWs in size band 6	£000	3	1083.000
4N.9	Estimated terminal pumping costs size band 6 works	£000	3	0.000
4N.10	Other direct costs of STWs in size band 6	£000	3	34477.000
4N.11	Direct costs of STWs in size band 6	£000	3	35560.000
4N.12	General & support costs of STWs in size band 6	£000	3	12010.000
4N.13	Functional expenditure of STWs in size band 6	£000	3	47570.000
4N.14	Total Functional expenditure for Sewage treatment	£000	3	81737.502

40 - Large sewage treatment works - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description		Units	DPs	STWNAMED01	STWNAMED02	STWNAMED03	STWNAMED04	STWNAMED05	STWNAMED06	STWNAMED07
A Sewage treatment works - Explanatory variables										
40.1	Works name	Text	0	ASHFORD	AYLESFORD	BEXHILL AND HASTINGS	BROOMFIELD BANK	BUDDS FARM	CANTERBURY	CHICHESTER
40.2	Classification of treatment works	Text	0	TB2	TB2	TB2	TB2	TB2	TB2	TB2
40.3	Population equivalent of total load received	000	2	91.74	129.28	142.65	114.17	368.23	65.22	39.46
40.4	Suspended solids consent	mg/l	0	17	60	150	150	60	20	45
40.5	BOD ₅ consent	mg/l	0	11	25	25	25	25	15	25
40.6	Ammonia consent	mg/l	0	2					4	
40.7	Phosphorus consent	mg/l	0	1					2	
40.8	UV consent	mW/s/cm ²	0	0	0	0	0	0	0	32
40.9	Load received by STW	kgBOD ₅ /d	0	5504	7757	8559	6850	22094	3913	2368
40.10	Flow passed to full treatment	m ³ /d	0	27,336	22,053	40,865	37,882	118,891	19,988	16,879
B Sewage treatment works - Functional expenditure										
40.11	Service charges	£000	0	33.000	29.000	24.000	37.000	56.000	18.000	19.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	1024.000	379.000	654.000	1657.000	1555.000	250.000	360.000
40.14	Total direct expenditure	£000	0	1057	408	678	1694	1611	268	379
40.15	General and support expenditure	£000	0	483.000	204.000	213.000	478.000	887.000	152.000	228.000
40.16	Functional expenditure	£000	0	1540	612	891	2172	2498	420	607

40 - Large sewage treatment works - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Units	DPs	STWNAMED08	STWNAMED09	STWNAMED10	STWNAMED11	STWNAMED12	STWNAMED13	STWNAMED14	
A Sewage treatment works - Explanatory variables										
40.1	Works name	Text	0	CHICKENHALL EASTLIEGH	EASTBOURNE	FAIRLEE	FAVERSHAM	FORD	FULLERTON	GODDARDS GREEN
40.2	Classification of treatment works	Text	0	TB2	TB2	TB2	TB2	TB2	TB2	TB2
40.3	Population equivalent of total load received	000	2	97.05	117.44	0.00	28.29	132.77	55.88	49.19
40.4	Suspended solids consent	mg/l	0	20	150	0	60	150	20	11
40.5	BOD ₅ consent	mg/l	0	12	25	0	25	25	10	7
40.6	Ammonia consent	mg/l	0	3		0			3	3
40.7	Phosphorus consent	mg/l	0	1		0			1	2
40.8	UV consent	mW/s/cm ²	0	0	0	0	0	0	0	0
40.9	Load received by STW	kgBOD ₅ /d	0	5823	7046	0	1697	7966	3353	2951
40.10	Flow passed to full treatment	m ³ /d	0	33,803	35,741	0	6,755	38,263	20,981	12,635
B Sewage treatment works - Functional expenditure										
40.11	Service charges	£000	0	34.000	38.000	0.000	10.000	28.000	15.000	18.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	999.000	2583.000	0.000	239.000	521.000	522.000	484.000
40.14	Total direct expenditure	£000	0	1033	2621	0	249	549	537	502
40.15	General and support expenditure	£000	0	378.000	934.000	0.000	74.000	247.000	166.000	217.000
40.16	Functional expenditure	£000	0	1411	3555	0	323	796	703	719

40 - Large sewage treatment works - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Units	DPs	STWNAMED15	STWNAMED16	STWNAMED17	STWNAMED18	STWNAMED19	STWNAMED20	STWNAMED21
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A		Sewage treatment works - Explanatory variables								
40.1	Works name	Text	0	GRAVESEND	HAILSHAM SOUTH	HAILSHAM SOUTH NEW WORKS	HAM HILL	HERNE BAY	HORSHAM NEW	MILLBROOK
40.2	Classification of treatment works	Text	0	TB2	TB2	TB2	TB2	TB2	TB2	TB2
40.3	Population equivalent of total load received	000	2	63.13	29.44	0.00	59.72	42.37	73.55	143.55
40.4	Suspended solids consent	mg/l	0		10	0	38	15	12	40
40.5	BOD ₅ consent	mg/l	0	25	7	0	25	10	8	25
40.6	Ammonia consent	mg/l	0	60	2	0	25	3	3	
40.7	Phosphorus consent	mg/l	0		1	0		2	1	
40.8	UV consent	mW/s/cm ²	0	0	0	0	0	0	0	0
40.9	Load received by STW	kgBOD ₅ /d	0	3788	1766	0	3583	2542	4413	8613
40.10	Flow passed to full treatment	m ³ /d	0	11,150	9,002	0	14,598	0	15,246	45,622

B		Sewage treatment works - Functional expenditure								
40.11	Service charges	£000	0	35.000	19.000	0.000	17.000	18.000	18.000	34.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	549.000	500.000	0.000	276.000	569.000	565.000	1400.000
40.14	Total direct expenditure	£000	0	584	519	0	293	587	583	1434
40.15	General and support expenditure	£000	0	93.000	169.000	0.000	145.000	178.000	371.000	399.000
40.16	Functional expenditure	£000	0	677	688	0	438	765	954	1833

40 - Large sewage treatment works - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Units	DPs	STWNAMED22	STWNAMED23	STWNAMED24	STWNAMED25	STWNAMED26	STWNAMED27	STWNAMED28
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A Sewage treatment works - Explanatory variables										
40.1	Works name	Text	0	MORESTEAD	MOTNEY HILL	NEWHAVEN EAST	NORTHFLEET	PEEL COMMON	PENNINGTON	PORTSLADE SHOREHAM
40.2	Classification of treatment works	Text	0	TB2	TB2	TB2	TB2	TB2	TB2	TB2
40.3	Population equivalent of total load received	000	2	38.52	263.59	59.84	58.87	274.05	52.69	57.42
40.4	Suspended solids consent	mg/l	0	60	60	150		30	49	150
40.5	BOD ₅ consent	mg/l	0	25	25	25	25	25	25	25
40.6	Ammonia consent	mg/l	0	5	60		50			
40.7	Phosphorus consent	mg/l	0	1						
40.8	UV consent	mW/s/cm ²	0	0	0	0	0	0	30	0
40.9	Load received by STW	kgBOD ₅ /d	0	2311	15815	3590	3532	16443	3161	3445
40.10	Flow passed to full treatment	m ³ /d	0	9,954	41,537	15,228	10,273	79,741	22,232	8,971

B Sewage treatment works - Functional expenditure										
40.11	Service charges	£000	0	20.000	33.000	20.000	19.000	34.000	21.000	21.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	559.000	1108.000	191.000	658.000	2266.000	793.000	432.000
40.14	Total direct expenditure	£000	0	579	1141	211	677	2300	814	453
40.15	General and support expenditure	£000	0	185.000	282.000	62.000	173.000	832.000	247.000	115.000
40.16	Functional expenditure	£000	0	764	1423	273	850	3132	1061	568

40 - Large sewage treatment works - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Units	DPs	STWNAMED29	STWNAMED30	STWNAMED31	STWNAMED32	STWNAMED33	STWNAMED34	STWNAMED35
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A Sewage treatment works - Explanatory variables										
40.1	Works name	Text	0	PORTSWOOD	QUEENBOROUGH	SANDOWN	SCAYNES HILL	SITTINGBOURNE	SLOWHILL COPSE	SWALECLIFFE
40.2	Classification of treatment works	Text	0	TB2	TB2	TB2	TB2	TB2	TB2	TB2
40.3	Population equivalent of total load received	000	2	79.00	44.04	134.12	38.91	71.39	64.33	36.54
40.4	Suspended solids consent	mg/l	0	80	60	150	25	100	60	150
40.5	BOD ₅ consent	mg/l	0	25	25	25	15	25	25	25
40.6	Ammonia consent	mg/l	0				5			
40.7	Phosphorus consent	mg/l	0				2			
40.8	UV consent	mW/s/cm ²	0	0	0	0	0	0	0	24
40.9	Load received by STW	kgBOD ₅ /d	0	4740	2642	8047	2335	4283	3860	2192
40.10	Flow passed to full treatment	m ³ /d	0	25,357	14,031	46,984	10,424	13,656	20,153	9,388

B Sewage treatment works - Functional expenditure										
40.11	Service charges	£000	0	34.000	15.000	33.000	18.000	19.000	19.000	20.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	815.000	403.000	1772.000	261.000	561.000	1058.000	633.000
40.14	Total direct expenditure	£000	0	849	418	1805	279	580	1077	653
40.15	General and support expenditure	£000	0	251.000	126.000	557.000	236.000	186.000	277.000	177.000
40.16	Functional expenditure	£000	0	1100	544	2362	515	766	1354	830

40 - Large sewage treatment works - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Units	DPs	STWNAMED36	STWNAMED37	STWNAMED38	STWNAMED39	STWNAMED40	STWNAMED41	STWNAMED42
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A Sewage treatment works - Explanatory variables										
40.1	Works name	Text	0	TONBRIDGE	TUNBRIDGE WELLS NORTH	TUNBRIDGE WELLS SOUTH	WEATHERLEES HILL	WHITEWALL CREEK	WEATHERLEES HILL	WOOLSTON
40.2	Classification of treatment works	Text	0	TB2	TB2	TB2	TB2	TB2	TB2	TB2
40.3	Population equivalent of total load received	000	2	45.59	31.74	30.40	91.29	31.83	92.70	67.69
40.4	Suspended solids consent	mg/l	0	30	20	18	35	60	60	60
40.5	BOD ₅ consent	mg/l	0	20	8	12	25	25	25	25
40.6	Ammonia consent	mg/l	0	10	3	4	5	20		
40.7	Phosphorus consent	mg/l	0	2	2	2				
40.8	UV consent	mW/s/cm ²	0	0	0	0	0	0	31	0
40.9	Load received by STW	kgBOD ₅ /d	0	2735	1904	1824	5477	1910	5562	4061
40.10	Flow passed to full treatment	m ³ /d	0	12,763	8,053	10,201	19,626	6,406	21,170	14,628

B Sewage treatment works - Functional expenditure										
40.11	Service charges	£000	0	20.000	19.000	20.000	33.000	19.000	37.000	20.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	583.000	547.000	440.000	1683.000	341.000	330.000	761.000
40.14	Total direct expenditure	£000	0	603	566	460	1716	360	367	781
40.15	General and support expenditure	£000	0	214.000	189.000	179.000	473.000	106.000	74.000	312.000
40.16	Functional expenditure	£000	0	817	755	639	2189	466	441	1093

40 - Large sewage treatment works - Wholesale wastewater

Southern Water

For the 12 months ended 31 March 2019

Line description	Units	DPs	STWNAMED43	STWNAMED44	STWNAMED45
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A Sewage treatment works - Explanatory variables						
4O.1	Works name	Text	0	WORTHING EAST	PEACEHAVEN	PORTOBELLO BRIGHTON
4O.2	Classification of treatment works	Text	0	TB2	TB2	TB2
4O.3	Population equivalent of total load received	000	2	141.73	296.69	0.00
4O.4	Suspended solids consent	mg/l	0	150	150	0
4O.5	BOD ₅ consent	mg/l	0	25	25	0
4O.6	Ammonia consent	mg/l	0			0
4O.7	Phosphorus consent	mg/l	0			0
4O.8	UV consent	mW/s/cm ²	0	0	22	0
4O.9	Load received by STW	kgBOD ₅ /d	0	8504	17801	0
4O.10	Flow passed to full treatment	m ³ /d	0	40,323	61,992	0

B Sewage treatment works - Functional expenditure						
4O.11	Service charges	£000	0	32.000	57.000	0.000
4O.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000
4O.13	Other direct expenditure	£000	0	1293.000	1903.000	0.000
4O.14	Total direct expenditure	£000	0	1325	1960	0
4O.15	General and support expenditure	£000	0	353.000	388.000	0.000
4O.16	Functional expenditure	£000	0	1678	2348	0

4P - Non-financial data for WR, WT and WD - Wholesale water

Southern Water

For the 12 months ended 31 March 2019

Line	Line description	Units	DPs	Current year
A Water resources				
4P.1	Proportion of distribution input derived from impounding reservoirs	Propn 0 to 1	3	0.041
4P.2	Proportion of distribution input derived from pumped storage reservoirs	Propn 0 to 1	3	0.000
4P.3	Proportion of distribution input derived from river abstractions	Propn 0 to 1	3	0.292
4P.4	Proportion of distribution input derived from groundwater works, excluding managed aquifer recharge (MAR) water supply schemes	Propn 0 to 1	3	0.667
4P.5	Proportion of distribution input derived from artificial recharge (AR) water supply schemes	Propn 0 to 1	3	0.000
4P.6	Proportion of distribution input derived from aquifer storage and recovery (ASR) water supply schemes	Propn 0 to 1	3	0.000
4P.7	Proportion of distribution input derived from saline abstractions	Propn 0 to 1	3	0.000
4P.8	Proportion of distribution input derived from water reuse schemes	Propn 0 to 1	3	0.000
4P.9	Number of impounding reservoirs	nr	0	3
4P.10	Number of pumped storage reservoirs	nr	0	2
4P.11	Number of river abstractions	nr	0	6
4P.12	Number of groundwater works excluding managed aquifer recharge (MAR) water supply schemes	nr	0	82
4P.13	Number of artificial recharge (AR) water supply schemes	nr	0	0
4P.14	Number of aquifer storage and recovery (ASR) water supply schemes	nr	0	0
4P.15	Number of saline abstraction schemes	nr	0	0
4P.16	Total number of sources	nr	0	93
4P.17	Number of reuse schemes	nr	0	0
4P.18	Total number of water reservoirs	nr	0	7
4P.19	Total capacity of water reservoirs	MI	0	43685
4P.20	Total number of intake and source pumping stations	nr	0	221
4P.21	Total number of raw water transport stations	nr	0	2
4P.22	Total capacity of intake and source pumping stations	kW	0	36420
4P.23	Total capacity of raw water transfer pumping stations	kW	0	951
4P.24	Total length of raw water abstraction mains and other conveyors	km	2	67.51
4P.25	Average pumping head – raw water abstraction	m.hd	2	36.35
4P.26	Average pumping head – raw water transport	m.hd	2	3.27
4P.27	Total length of raw and pre-treated (non-potable) water transport mains	km	2	84.44
4P.28	Water resources capacity (measured using water resources yield)	MI/d	2	757.62
B Water treatment				
4P.29	Total water treated at all SW simple disinfection works	MI/d	2	0.00
4P.30	Total water treated at all SW1 works	MI/d	2	0.00
4P.31	Total water treated at all SW2 works	MI/d	2	0.00
4P.32	Total water treated at all SW3 works	MI/d	2	70.50
4P.33	Total water treated at all SW4 works	MI/d	2	7.44
4P.34	Total water treated at all SW5 works	MI/d	2	109.18
4P.35	Total water treated at all SW6 works	MI/d	2	25.99
4P.36	Total water treated at all GW simple disinfection works	MI/d	2	31.30
4P.37	Total water treated at all GW1 works	MI/d	2	16.57
4P.38	Total water treated at all GW2 works	MI/d	2	227.89
4P.39	Total water treated at all GW3 works	MI/d	2	73.27
4P.40	Total water treated at all GW4 works	MI/d	2	219.75
4P.41	Total water treated at all GW5 works	MI/d	2	69.41
4P.42	Total water treated at all GW6 works	MI/d	2	0.00
4P.43	Total water treated at more than one type of works	MI/d	2	0.00
4P.44	Total number of SW simple disinfection works	nr	0	0
4P.45	Total number of SW1 works	nr	0	0
4P.46	Total number of SW2 works	nr	0	0
4P.47	Total number of SW3 works	nr	0	2
4P.48	Total number of SW4 works	nr	0	3
4P.49	Total number of SW5 works	nr	0	4
4P.50	Total number of SW6 works	nr	0	0
4P.51	Total number of GW simple disinfection works	nr	0	12
4P.52	Total number of GW1 works	nr	0	0
4P.53	Total number of GW2 works	nr	0	9
4P.54	Total number of GW3 works	nr	0	7
4P.55	Total number of GW4 works	nr	0	42
4P.56	Total number of GW5 works	nr	0	12
4P.57	Total number of GW6 works	nr	0	0
4P.58	Number of treatment works requiring remedial action because of raw water deterioration	nr	0	1
4P.59	Zonal population receiving water treated with orthophosphate	000	3	2417.992
4P.60	Average pumping head – water treatment	m.hd	2	19.76

4P - Non-financial data for WR, WT and WD - Wholesale water

Southern Water

For the 12 months ended 31 March 2019

Line	Line description	Units	DPs	Current year
C	Water distribution			
4P.61	Total length of potable mains as at 31 March	km	1	13929.5
4P.62	Total length of potable mains relined	km	1	0.0
4P.63	Total length of potable mains renewed	km	1	11.1
4P.64	Total length of new potable mains	km	1	25.2
4P.65	Total length of potable water mains (<=320mm)	km	1	12481.3
4P.66	Total length of potable water mains >320mm - <=450mm	km	1	534.9
4P.67	Total length of potable water mains >450mm - <=610mm	km	1	529.8
4P.68	Total length of potable water mains > 610mm	km	1	140.4
4P.69	Capacity of booster pumping stations	kW	0	35304
4P.70	Capacity of service reservoirs	MI	0	1042
4P.71	Capacity of water towers	MI	0	6
4P.72	Distribution input	MI/d	2	558.75
4P.73	Water delivered (non-potable)	MI/d	2	4.19
4P.74	Water delivered (potable)	MI/d	2	470.07
4P.75	Water delivered (billed measured residential)	MI/d	2	283.95
4P.76	Water delivered (billed measured business)	MI/d	2	116.10
4P.77	Total leakage	MI/d	2	101.83
4P.78	Distribution losses	MI/d	2	85.58
4P.79	Water taken unbilled	MI/d	2	10.36
4P.80	Number of lead communication pipes	nr	0	139690
4P.81	Number of galvanised iron communication pipes	nr	0	129309
4P.82	Number of other communication pipes	nr	0	641233
4P.83	Number of booster pumping stations	nr	0	207
4P.84	Total number of service reservoirs	nr	0	205
4P.85	Number of water towers	nr	0	8
4P.86	Total length of potable mains laid or structurally refurbished pre-1880	km	1	1785.2
4P.87	Total length of potable mains laid or structurally refurbished between 1881 and 1900	km	1	737.9
4P.88	Total length of potable mains laid or structurally refurbished between 1901 and 1920	km	1	1450.8
4P.89	Total length of potable mains laid or structurally refurbished between 1921 and 1940	km	1	1416.2
4P.90	Total length of potable mains laid or structurally refurbished between 1941 and 1960	km	1	888.1
4P.91	Total length of potable mains laid or structurally refurbished between 1961 and 1980	km	1	3404.5
4P.92	Total length of potable mains laid or structurally refurbished between 1981 and 2000	km	1	2949.2
4P.93	Total length of potable mains laid or structurally refurbished post 2001	km	1	1297.5
4P.94	Average pumping head – treated water distribution	m.hd	2	54.63

D	Band Disclosure (nr)			
4P.95	WTWs in size band 1	Nr	0	11
4P.96	WTWs in size band 2	Nr	0	14
4P.97	WTWs in size band 3	Nr	0	26
4P.98	WTWs in size band 4	Nr	0	22
4P.99	WTWs in size band 5	Nr	0	13
4P.100	WTWs in size band 6	Nr	0	2
4P.101	WTWs in size band 7	Nr	0	3
4P.102	WTWs in size band 8	Nr	0	0

E	Band Disclosure (%)			
4P.103	Proportion of Total DI band 1	%	1	1.0%
4P.104	Proportion of Total DI band 2	%	1	3.9%
4P.105	Proportion of Total DI band 3	%	1	11.2%
4P.106	Proportion of Total DI band 4	%	1	23.2%
4P.107	Proportion of Total DI band 5	%	1	26.9%
4P.108	Proportion of Total DI band 6	%	1	10.1%
4P.109	Proportion of Total DI band 7	%	1	23.6%
4P.110	Proportion of Total DI band 8	%	1	0.0%

4Q - Non-financial data - Properties, population and other - Wholesale water

Southern Water

For the 12 months ended 31 March 2019

Line description		Units	DPs	Current year
A	Properties and population			
4Q.1	Residential properties billed for measured water (external meter)	000	3	790.620
4Q.2	Residential properties billed for measured water (not external meter)	000	3	103.479
4Q.3	Business properties billed measured water	000	3	48.836
4Q.4	Residential properties billed for unmeasured water	000	3	127.998
4Q.5	Business properties billed unmeasured water	000	3	4.041
4Q.6	Total business connected properties at year end	000s	3	60.493
4Q.7	Total residential connected properties at year end	000s	3	1062.924
4Q.8	Total connected properties at year end	000	3	1123.417
4Q.9	Number of residential meters renewed	000	3	3.659
4Q.10	Number of business meters renewed	000s	3	0.637
4Q.11	Number of meters installed at request of optants	000	3	0.421
4Q.12	Number of selective meters installed	000	3	0.574
4Q.13	Total number of new business connections	000	3	0.345
4Q.14	Total number of new residential connections	000	3	9.236
4Q.15	Total population served	000	3	2548.794
4Q.16	Number of business meters (billed properties)	000	3	48.836
4Q.17	Number of residential meters (billed properties)	000	3	901.477
4Q.18	Company area	km2	0	10530
B	Other			
4Q.19	Number of lead communication pipes replaced for water quality	nr	0	76
4Q.20	Total supply side enhancements to the supply demand balance (dry year critical / peak conditions)	MI/d	2	0.00
4Q.21	Total supply side enhancements to the supply demand balance (dry year annual average conditions)	MI/d	2	2.00
4Q.22	Total demand side enhancements to the supply demand balance (dry year critical / peak conditions)	MI/d	2	0.13
4Q.23	Total demand side enhancements to the supply demand balance (dry year annual average conditions)	MI/d	2	0.13
4Q.24	Energy consumption - network plus	MWh	0	127313
4Q.25	Energy consumption - water resources	MWh	0	36210
4Q.26	Energy consumption - wholesale	MWh	0	163523
4Q.27	Mean Zonal Compliance	%	2	99.98%
4Q.28	Compliance Risk Index	nr	1	11.6
4Q.28	Event Risk Index	nr	1	5499.9
4Q.30	Volume of Leakage above or below the sustainable economic Level	MI/d	3	14.490

4R - Non-financial data - Wastewater network and sludge - Wholesale wastewater

Southern Water

Line	Item description	Unit	DPs	Current year
A	Wastewater network			
4R.1	Connectable properties served by s101A schemes completed in the report year	nr	0	195
4R.2	Number of s101A schemes completed in the report year	Nr	0	2
4R.3	Total pumping station capacity	kW	0	134721
4R.4	Number of network pumping stations	nr	0	3383
4R.5	Total number of sewer blockages	nr	0	20716
4R.6	Total number of gravity sewer collapses	nr	0	140
4R.7	Total number of sewer rising main bursts / collapses	nr	0	105
4R.8	Number of combined sewer overflows	nr	0	788
4R.9	Number of emergency overflows	nr	0	148
4R.10	Number of settled storm overflows	nr	0	180
4R.11	Sewer age profile (constructed post 2001)	km	0	1926
4R.12	Volume of trade effluent	MI/yr	2	4452.83
4R.13	Volume of wastewater receiving treatment at sewage treatment works	MI/yr	2	471807.00
4R.14	Length of gravity sewers rehabilitated	km	0	13
4R.15	Length of rising mains replaced or structurally refurbished	km	0	3
4R.16	Length of foul (only) public sewers	km	0	12939
4R.17	Length of surface water (only) public sewers	km	0	5121
4R.18	Length of combined public sewers	km	0	2491
4R.19	Length of rising mains	km	0	1515
4R.20	Length of other wastewater network pipework	Km	0	91
4R.21	Total length of "legacy" public sewers as at 31 March	Km	0	22157
4R.22	Length of formerly private sewers and lateral drains (s105A sewers)	km	0	17464

B	Sludge			
4R.23	Total sewage sludge produced, treated by incumbents	ttds/ year	1	116.8
4R.24	Total sewage sludge produced, treated by 3rd party sludge service provider	ttds/ year	1	0.0
4R.25	Total sewage sludge produced	ttds/ year	1	116.8
4R.26	Total sewage sludge produced from non-appointed liquid waste treatment	ttds/ year	1	5.5
4R.27	Percentage of sludge produced and treated at a site of STW and STC co-location	%	2	70.28%
4R.28	Total sewage sludge disposed by incumbents	ttds/ year	1	63.9
4R.29	Total sewage sludge disposed by 3rd party sludge service provider	ttds/ year	1	0.0
4R.30	Total sewage sludge disposed	ttds/ year	1	63.9
4R.31	Total measure of intersiting 'work' done by pipeline	ttds*km/year	0	8
4R.32	Total measure of intersiting 'work' done by tanker	ttds*km/year	0	855
4R.33	Total measure of intersiting 'work' done by truck	ttds*km/year	0	1205
4R.34	Total measure of intersiting 'work' done (all forms of transportation)	ttds*km/year	0	2068
4R.35	Total measure of intersiting 'work' done by tanker (by volume transported)	m3*km/year	0	23559379
4R.36	Total measure of 'work' done in sludge disposal operations by pipeline	ttds*km/year	0	0
4R.37	Total measure of 'work' done in sludge disposal operations by tanker	ttds*km/year	0	0
4R.38	Total measure of 'work' done in sludge disposal operations by truck	ttds*km/year	0	2631
4R.39	Total measure of 'work' done in sludge disposal operations (all forms of transportation)	ttds*km/year	0	2631
4R.40	Total measure of 'work' done by tanker in sludge disposal operations (by volume transported)	m3*km/year	0	0
4R.41	Chemical P sludge as percentage of sludge produced at STWs	%	2	21.81%

4S - Non-financial data - sewage treatment - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Unit	DPs	Treatment categories							
			Primary	Secondary		Tertiary				
				Activated Sludge	Biological	A1	A2	B1	B2	
A	Load received at sewage treatment works in 2018-19									
4S.1	Load received by STWs in size band 1	kg BOD ₅ /day	0	6	163	242	96	13	95	0
4S.2	Load received by STWs in size band 2	kg BOD ₅ /day	0	0	254	122	61	66	208	26
4S.3	Load received by STWs in size band 3	kg BOD ₅ /day	0	0	608	1779	325	584	1054	1689
4S.4	Load received by STWs in size band 4	kg BOD ₅ /day	0	0	553	4498	587	2520	3096	10348
4S.5	Load received by STWs in size band 5	kg BOD ₅ /day	0	0	2665	1321	0	2140	915	16049
4S.6	Load received by STWs above size band 5	kg BOD ₅ /day	0	0	117538	12791	4256	82608	0	28664
4S.7	Total load received	kg BOD ₅ /day	0	6	121781	20753	5325	87931	5368	56776
4S.8	Load received from trade effluent customers at treatment works	kg BOD ₅ /day	0							

B	Number of sewage treatment works at 31 March 2019									
4S.9	STWs in size band 1	nr	0	4	29	48	10	1	9	0
4S.10	STWs in size band 2	nr	0	0	12	6	3	3	9	1
4S.11	STWs in size band 3	nr	0	0	8	24	5	9	20	23
4S.12	STWs in size band 4	nr	0	0	3	18	2	8	13	32
4S.13	STWs in size band 5	nr	0	0	3	2	0	2	1	15
4S.14	STWs above size band 5	nr	0	0	17	3	1	14	0	7
4S.15	Total number of works	nr	0	4	72	101	21	37	52	78

Line description	Unit	DPs	Current year
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C	Population equivalent			
4S.16	Current population equivalent served by STWs	000	3	4903.513
4S.17	Current population equivalent served by discharge relocation schemes	000s	3	0.000
4S.18	Current population equivalent served by filter bed STWs with tightened/new P consents	000s	3	60.910
4S.19	Current population equivalent served by activated sludge STWs with tightened/new P consents	000s	3	73.770
4S.20	Current population equivalent served by groundwater protection schemes	000s	3	0.000
4S.21	Current population equivalent served by STWs with a Flow1 driver scheme	000s	3	0.000
4S.22	Current population equivalent served by STWs with tightened/new N consents	000s	3	0.000
4S.23	Current population equivalent served by STWs with tightened/new sanitary parameter consents	000s	3	8.460
4S.24	Current population equivalent served by STWs with tightened/new UV consents	000s	3	0.000
4S.25	Population equivalent treatment capacity enhancement	000s	3	19.160

4S - Non-financial data - sewage treatment - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Unit	DPs	Total
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A	Load received at sewage treatment works in 2018-19			
4S.1	Load received by STWs in size band 1	kg BOD ₅ /day	0	615
4S.2	Load received by STWs in size band 2	kg BOD ₅ /day	0	737
4S.3	Load received by STWs in size band 3	kg BOD ₅ /day	0	6039
4S.4	Load received by STWs in size band 4	kg BOD ₅ /day	0	21602
4S.5	Load received by STWs in size band 5	kg BOD ₅ /day	0	23090
4S.6	Load received by STWs above size band 5	kg BOD ₅ /day	0	245857
4S.7	Total load received	kg BOD ₅ /day	0	297940
4S.8	Load received from trade effluent customers at treatment works	kg BOD ₅ /day	0	7136

B	Number of sewage treatment works at 31 March 2019			
4S.9	STWs in size band 1	nr	0	101
4S.10	STWs in size band 2	nr	0	34
4S.11	STWs in size band 3	nr	0	89
4S.12	STWs in size band 4	nr	0	76
4S.13	STWs in size band 5	nr	0	23
4S.14	STWs above size band 5	nr	0	42
4S.15	Total number of works	nr	0	365

Line description	Unit	DPs
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C	Population equivalent		
4S.16	Current population equivalent served by STWs	000	3
4S.17	Current population equivalent served by discharge relocation schemes	000s	3
4S.18	Current population equivalent served by filter bed STWs with tightened/new P consents	000s	3
4S.19	Current population equivalent served by activated sludge STWs with tightened/new P consents	000s	3
4S.20	Current population equivalent served by groundwater protection schemes	000s	3
4S.21	Current population equivalent served by STWs with a Flow1 driver scheme	000s	3
4S.22	Current population equivalent served by STWs with tightened/new N consents	000s	3
4S.23	Current population equivalent served by STWs with tightened/new sanitary parameter consents	000s	3
4S.24	Current population equivalent served by STWs with tightened/new UV consents	000s	3
4S.25	Population equivalent treatment capacity enhancement	000s	3

4S - Non-financial data - sewage treatment - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Unit	DPs	Phosphorus				
			<=0.5mg/l		>1mg/l	No permit	Total
A Load received at sewage treatment works in 2018-19							
4S.1 Load received by STWs in size band 1	kg BOD ₅ /day	0	0	0	13	602	615
4S.2 Load received by STWs in size band 2	kg BOD ₅ /day	0	0	0	92	646	738
4S.3 Load received by STWs in size band 3	kg BOD ₅ /day	0	0	1119	558	4362	6039
4S.4 Load received by STWs in size band 4	kg BOD ₅ /day	0	0	4939	2119	14546	21604
4S.5 Load received by STWs in size band 5	kg BOD ₅ /day	0	0	4754	12169	6166	23089
4S.6 Load received by STWs above size band 5	kg BOD ₅ /day	0	6550	19202	19648	200456	245856
4S.7 Total load received	kg BOD ₅ /day	0	6550	30014	34599	226778	297941
4S.8 Load received from trade effluent customers at treatment works	kg BOD ₅ /day	0					

B Number of sewage treatment works at 31 March 2019							
4S.9 STWs in size band 1	nr	0	0	0	1	100	101
4S.10 STWs in size band 2	nr	0	0	0	4	30	34
4S.11 STWs in size band 3	nr	0	0	14	10	65	89
4S.12 STWs in size band 4	nr	0	0	19	6	51	76
4S.13 STWs in size band 5	nr	0	0	4	12	7	23
4S.14 STWs above size band 5	nr	0	1	5	7	29	42
4S.15 Total number of works	nr	0	1	42	40	282	365

Line description	Unit	DPs
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C Population equivalent		
4S.16 Current population equivalent served by STWs	000	3
4S.17 Current population equivalent served by discharge relocation schemes	000s	3
4S.18 Current population equivalent served by filter bed STWs with tightened/new P consents	000s	3
4S.19 Current population equivalent served by activated sludge STWs with tightened/new P consents	000s	3
4S.20 Current population equivalent served by groundwater protection schemes	000s	3
4S.21 Current population equivalent served by STWs with a Flow1 driver scheme	000s	3
4S.22 Current population equivalent served by STWs with tightened/new N consents	000s	3
4S.23 Current population equivalent served by STWs with tightened/new sanitary parameter consents	000s	3
4S.24 Current population equivalent served by STWs with tightened/new UV consents	000s	3
4S.25 Population equivalent treatment capacity enhancement	000s	3

4S - Non-financial data - sewage treatment - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Unit	DPs	Treatment works consents						
			BOD ₅						
			<=7mg/l	>7 to <=10mg/l	>10 to <=20mg/l	>20mg/l	No permit	Total	
A Load received at sewage treatment works in 2018-19									
4S.1	Load received by STWs in size band 1	kg BOD ₅ /day	0	0	7	78	176	354	615
4S.2	Load received by STWs in size band 2	kg BOD ₅ /day	0	0	38	356	309	33	736
4S.3	Load received by STWs in size band 3	kg BOD ₅ /day	0	66	762	3182	2029	0	6039
4S.4	Load received by STWs in size band 4	kg BOD ₅ /day	0	485	5426	8594	7098	0	21603
4S.5	Load received by STWs in size band 5	kg BOD ₅ /day	0	1836	5290	6890	9073	0	23089
4S.6	Load received by STWs above size band 5	kg BOD ₅ /day	0	5592	12779	24265	203219	0	245855
4S.7	Total load received	kg BOD ₅ /day	0	7979	24302	43365	221904	387	297937
4S.8	Load received from trade effluent customers at treatment works	kg BOD ₅ /day	0						

B Number of sewage treatment works at 31 March 2019									
4S.9	STWs in size band 1	nr	0	0	1	8	22	70	101
4S.10	STWs in size band 2	nr	0	0	2	15	15	2	34
4S.11	STWs in size band 3	nr	0	1	12	47	29	0	89
4S.12	STWs in size band 4	nr	0	2	17	32	25	0	76
4S.13	STWs in size band 5	nr	0	2	6	6	9	0	23
4S.14	STWs above size band 5	nr	0	2	4	6	30	0	42
4S.15	Total number of works	nr	0	7	42	114	130	72	365

Line description	Unit	DPs
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C Population equivalent				
4S.16	Current population equivalent served by STWs	000	3	
4S.17	Current population equivalent served by discharge relocation schemes	000s	3	
4S.18	Current population equivalent served by filter bed STWs with tightened/new P consents	000s	3	
4S.19	Current population equivalent served by activated sludge STWs with tightened/new P consents	000s	3	
4S.20	Current population equivalent served by groundwater protection schemes	000s	3	
4S.21	Current population equivalent served by STWs with a Flow1 driver scheme	000s	3	
4S.22	Current population equivalent served by STWs with tightened/new N consents	000s	3	
4S.23	Current population equivalent served by STWs with tightened/new sanitary parameter consents	000s	3	
4S.24	Current population equivalent served by STWs with tightened/new UV consents	000s	3	
4S.25	Population equivalent treatment capacity enhancement	000s	3	

4S - Non-financial data - sewage treatment - Wholesale wastewater

Southern Water

For the 12 months ended 31 March 2019

Line description	Unit	DPs	Ammonia						
			<=1mg/l	>1 to <=3mg/l	>3 to <=10mg/l	>10mg/l	No permit	Total	
A Load received at sewage treatment works in 2018-19									
4S.1	Load received by STWs in size band 1	kg BOD ₅ /day	0	0	0	100	49	466	615
4S.2	Load received by STWs in size band 2	kg BOD ₅ /day	0	0	26	215	78	419	738
4S.3	Load received by STWs in size band 3	kg BOD ₅ /day	0	0	786	3230	487	1535	6038
4S.4	Load received by STWs in size band 4	kg BOD ₅ /day	0	0	4610	10718	437	5838	21603
4S.5	Load received by STWs in size band 5	kg BOD ₅ /day	0	0	7681	7066	1549	6792	23088
4S.6	Load received by STWs above size band 5	kg BOD ₅ /day	0	0	31261	20062	29619	164914	245856
4S.7	Total load received	kg BOD ₅ /day	0	0	44364	41391	32219	179964	297938
4S.8	Load received from trade effluent customers at treatment works	kg BOD ₅ /day	0						

B Number of sewage treatment works at 31 March 2019									
4S.9	STWs in size band 1	nr	0	0	0	14	4	83	101
4S.10	STWs in size band 2	nr	0	0	1	10	3	20	34
4S.11	STWs in size band 3	nr	0	0	13	45	9	22	89
4S.12	STWs in size band 4	nr	0	0	15	37	3	21	76
4S.13	STWs in size band 5	nr	0	0	8	7	2	6	23
4S.14	STWs above size band 5	nr	0	0	8	6	5	23	42
4S.15	Total number of works	nr	0	0	45	119	26	175	365

Line description	Unit	DPs
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C Population equivalent			
4S.16	Current population equivalent served by STWs	000	3
4S.17	Current population equivalent served by discharge relocation schemes	000s	3
4S.18	Current population equivalent served by filter bed STWs with tightened/new P consents	000s	3
4S.19	Current population equivalent served by activated sludge STWs with tightened/new P consents	000s	3
4S.20	Current population equivalent served by groundwater protection schemes	000s	3
4S.21	Current population equivalent served by STWs with a Flow1 driver scheme	000s	3
4S.22	Current population equivalent served by STWs with tightened/new N consents	000s	3
4S.23	Current population equivalent served by STWs with tightened/new sanitary parameter consents	000s	3
4S.24	Current population equivalent served by STWs with tightened/new UV consents	000s	3
4S.25	Population equivalent treatment capacity enhancement	000s	3

4T - Non-financial data - sludge treatment - Wholesale wastewater

Southern Water

For the 12 months ended 31 March 2019

Line	Item description	Unit	DPs	by Incumbent	by 3rd party sludge service providers
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A	Sludge treatment process				
4T.1	% Sludge - untreated	%	1	0.0%	0.0%
4T.2	% Sludge treatment process - raw sludge liming	%	1	0.0%	0.0%
4T.3	% Sludge treatment process - conventional AD	%	1	100.0%	0.0%
4T.4	% Sludge treatment process- advanced AD	%	1	0.0%	0.0%
4T.5	% Sludge treatment process - incineration of raw sludge	%	1	0.0%	0.0%
4T.6	% Sludge treatment process - incineration of digested sludge	%	1	0.0%	0.0%
4T.7	% Sludge treatment process - phyto-conditioning/composting	%	1	0.0%	0.0%
4T.8	% Sludge treatment process - other (specify)	%	1	0.0%	0.0%
4T.9	% Sludge treatment process - Total	%	1	100.0%	0.0%

B	(Un-incinerated) sludge disposal route				
4T.10	% Sludge disposal route - landfill, raw	%	1	0.0%	0.0%
4T.11	% Sludge disposal route - landfill, partly treated	%	1	0.0%	0.0%
4T.12	% Sludge disposal route - land restoration / reclamation	%	1	0.0%	0.0%
4T.13	% Sludge disposal route - sludge recycled to farmland	%	1	100.0%	0.0%
4T.14	% Sludge disposal route - other (specify)	%	1	0.0%	0.0%
4T.15	% Sludge disposal route - Total	%	1	100.0%	0.0%

4U - Non-financial data - Properties, population and other - Wholesale wastewater

Southern Water

For the 12 months ended 31 March 2019

Line	Item description	Unit	DPs	Current year
A	Properties and population			
4U.1	Residential properties connected during the year	000	3	12.969
4U.2	Business properties connected during the year	000	3	0.490
4U.3	Residential properties billed unmeasured sewage	000	3	389.608
4U.4	Residential properties billed measured sewage	000	3	1444.873
4U.5	Residential properties billed for sewage	000	3	1834.481
4U.6	Business properties billed unmeasured sewage	000	3	5.908
4U.7	Business properties billed measured sewage	000	3	73.975
4U.8	Business properties billed for sewage	000	3	79.883
4U.9	Void properties	000	3	72.280
4U.10	Total number of properties	000s	3	1986.644
4U.11	Resident population	000	3	4608.296
4U.12	Non-resident population	000	3	62.156
B	Other			
4U.13	Energy consumption - network plus	MWh	3	282946.460
4U.14	Energy consumption - sludge	MWh	3	57830.383
4U.15	Energy consumption - wholesale	MWh	3	340776.843
4U.16	Population resident in National Parks, SSSIs and Areas of Outstanding Natural Beauty (AONBs)	000s	3	402.098
4U.17	Total sewerage catchment area	km2	0	1517
4U.18	Designated bathing waters	nr	0	83
4U.19	Number of intermittent discharge sites with event duration monitoring	nr	0	90
4U.20	Number of monitors for flow monitoring at STWs	Nr	0	0
4U.21	Number of odour related complaints	nr	0	1790
4U.22	Volume of storage provided at CSOs, storm tanks, etc to meet spill frequency objectives	m3	0	0
4U.23	Total volume of network storage	m3	0	2518069

4V - Operating cost analysis - water resources

For the 12 months ended 31 March 2019

Line	Item description	Unit	DPs	Impounding Reservoir	Pumped Storage	River Abstractions	Groundwater, excluding MAR water supply schemes	Artificial Recharge (AR) water supply schemes	Aquifer Storage and Recovery (ASR) water supply schemes	Other	Total
Water resources											
A Opex analysis											
4V.1	Power	£m	3	0.321	0.002	0.429	3.035	0.000	0.000	0.000	3.787
4V.2	Income Treated as negative expenditure	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4V.3	Abstraction charges/ discharge consents	£m	3	0.041	0.129	1.523	2.929	0.000	0.000	0.000	4.622
4V.4	Bulk supply	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Other operating expenditure											
4V.5	- Renewals expensed in year (Infrastructure)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4V.6	- Renewals expensed in year (Non-Infrastructure)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4V.7	- Other operating expenditure excluding renewals - direct	£m	3	0.191	0.001	0.451	0.471	0.000	0.000	0.000	1.114
4V.8	- Other operating expenditure excluding renewals - indirect	£m	3	0.290	0.069	1.256	3.344	0.000	0.000	0.000	4.959
4V.9	Total functional expenditure	£m	3	0.843	0.201	3.659	9.779	0.000	0.000	0.000	14.482
4V.10	Local authority and Cumulo rates	£m	3	0.059	0.014	0.251	0.631	0.000	0.000	0.000	0.955
4V.11	Total operating expenditure (excluding 3rd party)	£m	3	0.902	0.215	3.910	10.410	0.000	0.000	0.000	15.437
4V.12	Depreciation	£m	3	1.020	0.000	2.380	1.708	0.000	0.000	0.000	5.108
4V.13	Total operating costs (excluding 3rd party)	£m	3	1.922	0.215	6.290	12.118	0.000	0.000	0.000	20.545

Line	Item description	Unit	DPs	Water resources	Raw water distribution	Water treatment	Treated water distribution	Total
B Other expenditure - wholesale water								
4V.14	Employment costs - directly allocated	£m	3	1.260	0.000	13.462	10.635	25.357
4V.15	Employment costs - indirectly allocated	£m	3	0.588	0.000	5.546	4.761	10.895
4V.16	Number FTEs consistent - directly allocated	Nr	0	28	0	264	227	519.000
4V.17	Number FTEs consistent - indirectly allocated	Nr	0	8	0	72	62	142.000
4V.18	Costs associated with Traffic Management Act	£m	3	0.000	0.000	0.000	1.815	1.815

Line	Item description	Unit	DPs	Water resources	Raw water distribution	Water treatment	Treated water distribution	Total
C Service charges								
4V.19	Canal & River Trust service charges and discharge consents	£m	3	0.000	0.000	0.000	0.000	0.000
4V.20	Environment Agency service charges/ discharge consents	£m	3	4.622	0.000	0.061	0.000	4.683
4V.21	Other abstraction charges/ discharge consents	£m	3	0.000	0.000	0.000	0.000	0.000

4V.22	Statutory water softening	£m	3	0.000	0.000	0.000	0.000	0.000
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C	Sludge disposal route			Landfill, raw	Landfill, partly treated	Land restoration / reclamation	Sludge recycled to farmland	Other	Total
4W.27	Power	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
4W.28	Income treated as negative expenditure	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
4W.29	Discharge consents	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
4W.30	Bulk supply	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
	Other operating expenditure								
4W.31	- Renewals expensed in year (Infrastructure)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
4W.32	- Renewals expensed in year (Non-Infrastructure)	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
4W.33	Other direct operating expenditure (New cods? Check def'n)	£m	3	0.000	0.000	0.000	4.369	0.000	4.369
4W.34	Other indirect operating expenditure (new code? Check def'n.)	£m	3	0.000	0.000	0.000	0.607	0.000	0.607
4W.35	Total functional expenditure	£m	3	0.000	0.000	0.000	4.976	0.000	4.976
4W.36	Local authority and Cumulo rates	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
4W.37	Total operating expenditure (excluding 3rd party)	£m	3	0.000	0.000	0.000	4.976	0.000	4.976
4W.38	Depreciation	£m	3	0.000	0.000	0.000	0.000	0.000	0.000
4W.39	Total operating costs (excluding 3rd party)	£m	3	0.000	0.000	0.000	4.976	0.000	4.976

Other expenditure - Wholesale wastewater

Line	Item description	Unit	DPs	Network plus sewage collection	Network plus sewage treatment	Sludge	Total
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D	Opex analysis						
4W.40	Employment costs - directly allocated	£m	3	17.674	27.149	3.556	48.379
4W.41	Employment costs - indirectly allocated	£m	3	9.826	10.810	1.857	22.493
4W.42	Number FTEs - directly allocated	Nr	0	468	515	88	1071
4W.43	Number FTEs - indirectly allocated	Nr	0	128	141	24	293
4W.44	Costs associated with Traffic Management Act	£m	3	0.202	0.000	0.000	0.202
4W.45	Costs associated with Industrial Emissions Directive	£m	3	0.000	0.000	0.000	0.000

E	Service charges						
4W.46	Canal & River Trust service charges and discharge consents	£m	3	0.000	0.000	0.000	0.000
4W.47	Environment Agency service charges / discharge consents	£m	3	1.007	3.008	0.016	4.031
4W.48	Other service charges / permits	£m	3	0.000	0.000	0.000	0.000

Bidding activity: bioresources market

Southern Water

For the 12 months ended 31 March 2019

Line	Item description	Units	DPs	Current year
A Summary of market activity				
A1	Total number of contracts held with a third party at end of the financial year	nr	0	2
A2	Total amount paid on contracts during the financial year	£000	3	10276.093
A3	Number of different suppliers at the year end	nr	0	2
A4	Number of contracts ended during the year	nr	0	4
A5	Number of contracts renewed during the year	nr	0	1
A6	Number of new contracts that have been agreed during the year	nr	0	0
B Formal tender process				
B1	Number of formal tenders you issued during the year	nr	0	0
B2	Total number of bids received on all your tenders	nr	0	0
B3	Number of tenders you awarded during the year	nr	0	0
C Informal bidding process				
C1	Number of offers made by a third party outside the formal tender process during the financial year	nr	0	0
C2	The number of successful offers	nr	0	0
D Treatment of sludge				
D1	Total quantity of sludge produced in performance of the company's functions as a sewerage undertaker	ttds/ year	2	116.84
D2	Quantity of sludge treated in-house	ttds/ year	2	116.84
D3	Quantity of sludge treated by a third party	ttds/ year	2	0.00
D4	Number of contracts to provide sludge treatment	nr	0	0
D5	Number of suppliers with contracts for sludge treatment	nr	0	0
E Sludge transported				
E1	Total quantity of sludge transported by road	ttds/ year	2	57.49
E2	Quantity of sludge transported by road in-house by your own bioresources service	ttds/ year	2	0.00
E3	Quantity of sludge transported by road by a third party	ttds/ year	2	57.49
E4	Number of contracts to provide sludge transport services	nr	0	2
E5	Number of suppliers with contracts for sludge transportation	nr	0	2
F Sludge recycled or disposed				
F1	Total quantity of sludge recycled or disposed	ttds/ year	2	63.87
F2	Quantity of sludge recycled or disposed in-house by your own bioresources service	ttds/ year	2	0.00
F3	Quantity of sludge recycled by a third party	ttds/ year	2	63.87
F4	Number of contracts held to provide sludge recycling or disposal services	nr	0	1
F5	Number of suppliers with contracts for sludge recycling or disposal	nr	0	1