

Amendment to our 2017/18 Annual Report and Annual Performance Report and 2017/18 Cost Assessment tables

[Non-SEMD enhancement expenditure:](#)

Following revised guidance issued by Ofwat on 6 July 2018, which was post publication of our 2017/18 Annual Report and Annual Performance Report and 2017/18 Cost Assessment tables, we have amended table 4M of the 2017/18 cost assessment to align with PR19 guidance as requested. This change to table 4M has also resulted in changes to table 4E on page 218 of the 2017/18 Annual Report and Annual Performance Report and table 4K of the 2017/18 Cost Assessment. We have presented the updated tables below, as well as the tables as previously published. We have highlighted the specific numbers that have been amended.

Table 4E (page 218) of the 2017/18 Annual Report and Annual Performance Report) – restated

4E. Totex analysis – wholesale wastewater

For the year ended 31 March 2018

Table 4E provides information about the different activities undertaken as part of delivering upstream services with a breakdown of the total expenditure for carrying out the supply of sewerage services.

	Network+ Sewage collection			Network+ Sewage treatment		Sludge			Total £m
	Foul £m	Surface water drainage £m	Highway drainage £m	Sewage treatment and disposal £m	Imported sludge liquor treatment £m	Sludge transport £m	Sludge treatment £m	Sludge disposal £m	
Operating expenditure									
Power	6.9	2.2	1.3	54.2	–	–	(13.8)	–	50.8
Income treated as negative expenditure	(0.1)	–	–	–	–	–	(9.6)	(0.8)	(10.5)
Discharge consents	1.2	0.4	0.2	3.5	–	–	0.1	–	5.4
Bulk discharge	–	–	–	2.4	–	–	0.1	–	2.5
Other operating expenditure									
Renewals expensed in year (Infrastructure)	46.0	14.6	8.4	–	–	–	–	–	69.0
Renewals expensed in year (Non-Infrastructure)	–	–	–	–	–	–	–	–	–
Other operating expenditure excluding renewals	56.7	15.6	7.3	109.9	0.8	11.1	50.0	19.2	270.6
Local authority and Cumulo rates	–	–	–	28.5	–	–	9.0	0.9	38.4
Total operating expenditure excluding third party services	110.7	32.8	17.2	198.5	0.8	11.1	35.8	19.3	426.2
Third party services	3.0	0.4	0.1	0.5	–	–	–	–	4.0
Total operating expenditure	113.7	33.2	17.3	199.0	0.8	11.1	35.8	19.3	430.2
Capital expenditure									
Maintaining the long term capability of the assets – infra	70.8	–	–	–	–	–	–	–	70.8
Maintaining the long term capability of the assets – non-infra	28.0	3.5	1.2	115.4	0.2	1.3	78.3	7.7	235.6
Other capital expenditure – infra	31.4	(1.6)	–	–	–	–	–	–	29.8
Other capital expenditure – non-infra	4.3	0.1	0.1	137.4	–	–	(1.3)	–	140.6
Infrastructure network reinforcement	3.8	3.5	–	–	–	–	–	–	7.3
Total gross capital expenditure (excluding third party)	138.3	5.5	1.3	252.8	0.2	1.3	77.0	7.7	484.1
Third party services	–	–	–	–	–	–	–	–	–
Total gross capital expenditure	138.3	5.5	1.3	252.8	0.2	1.3	77.0	7.7	484.1
Grants and contributions	34.8	0.1	–	0.6	–	–	–	–	35.5
Totex	217.2	38.6	18.6	451.2	1.0	12.4	112.8	27.0	878.8
Cash expenditure									
Pension deficit recovery payments	2.5	0.7	0.3	3.7	–	0.2	1.9	0.2	9.5
Other cash items	–	–	–	–	–	–	–	–	–
Totex including cash items	219.7	39.3	18.9	454.9	1.0	12.6	114.7	27.2	888.3
Unit cost information (operating expenditure)	Network+ Sewage collection			Network+ Sewage treatment		Sludge			
	Volume collected MI	Volume Collected MI	Volume Collected MI	BOD Tonnes	BOD Tonnes	Volume transported M3	Dried solid mass treated ttds	Dried solid mass disposed ttds	
Volume (MI)	702,657.7	325,096.8	179,347.8	354,102.6	8,391.8	1,384,487.2	366.2	365.2	
Unit cost (£/MI)	161.8	102.1	96.5	562.4	91.3	8.0	97,853.8	52,715.1	
Population ('000s)	15,018.3	15,018.3	15,018.3	15,018.3	15,018.3	15,018.3	15,018.3	15,018.3	
Unit cost (£/population)	7.6	2.2	1.2	13.3	0.1	0.7	2.4	1.3	

Table 4E – as previously published

4E. Totex analysis – wholesale wastewater**For the year ended 31 March 2018**

Table 4E provides information about the different activities undertaken as part of delivering upstream services with a breakdown of the total expenditure for carrying out the supply of sewerage services.

	Network+ Sewage collection			Network+ Sewage treatment		Sludge			Total £m
	Foul £m	Surface water drainage £m	Highway drainage £m	Sewage treatment and disposal £m	Imported sludge liquor treatment £m	Sludge transport £m	Sludge treatment £m	Sludge disposal £m	
Operating expenditure									
Power	6.9	2.2	1.3	54.2	–	–	(13.8)	–	50.8
Income treated as negative expenditure	(0.1)	–	–	–	–	–	(9.6)	(0.8)	(10.5)
Discharge consents	1.2	0.4	0.2	3.5	–	–	0.1	–	5.4
Bulk discharge	–	–	–	2.4	–	–	0.1	–	2.5
Other operating expenditure									
Renewals expended in year (Infrastructure)	46.0	14.6	8.4	–	–	–	–	–	69.0
Renewals expended in year (Non-Infrastructure)	–	–	–	–	–	–	–	–	–
Other operating expenditure excluding renewals	56.7	15.6	7.3	109.9	0.8	11.1	50.0	19.2	270.6
Local authority and Cumulo rates	–	–	–	28.5	–	–	9.0	0.9	38.4
Total operating expenditure excluding third party services	110.7	32.8	17.2	198.5	0.8	11.1	35.8	19.3	426.2
Third party services	3.0	0.4	0.1	0.5	–	–	–	–	4.0
Total operating expenditure	113.7	33.2	17.3	199.0	0.8	11.1	35.8	19.3	430.2
Capital expenditure									
Maintaining the long term capability of the assets – infra	70.8	–	–	–	–	–	–	–	70.8
Maintaining the long term capability of the assets – non-infra	28.4	3.6	1.3	115.8	0.2	1.3	78.5	7.7	236.8
Other capital expenditure – infra	31.4	(1.6)	–	–	–	–	–	–	29.8
Other capital expenditure – non- infra	3.9	–	–	137.0	–	–	(1.5)	–	139.4
Infrastructure network reinforcement	3.8	3.5	–	–	–	–	–	–	7.3
Total gross capital expenditure (excluding third party)	138.3	5.5	1.3	252.8	0.2	1.3	77.0	7.7	484.1
Third party services	–	–	–	–	–	–	–	–	–
Total gross capital expenditure	138.3	5.5	1.3	252.8	0.2	1.3	77.0	7.7	484.1
Grants and contributions	34.8	0.1	–	0.6	–	–	–	–	35.5
Totex	217.2	38.6	18.6	451.2	1.0	12.4	112.8	27.0	878.8
Cash expenditure									
Pension deficit recovery payments	2.5	0.7	0.3	3.7	–	0.2	1.9	0.2	9.5
Other cash items	–	–	–	–	–	–	–	–	–
Totex including cash items	219.7	39.3	18.9	454.9	1.0	12.6	114.7	27.2	888.3
	Network+ Sewage collection			Network+ Sewage treatment		Sludge			
	Volume collected MI	Volume Collected MI	Volume Collected MI	BOD Tonnes	BOD Tonnes	Volume transported M3	Dried solid mass treated ttds	Dried solid mass disposed ttds	
Unit cost information (operating expenditure)									
Volume (MI)	702,657.7	325,096.8	179,347.8	354,102.6	8,391.8	1,384,487.2	366.2	365.2	
Unit cost (£/MI)	161.8	102.1	96.5	562.4	91.3	8.0	97,853.8	52,715.1	
Population ('000s)	15,018.3	15,018.3	15,018.3	15,018.3	15,018.3	15,018.3	15,018.3	15,018.3	15,018.3
Unit cost (£/population)	7.6	2.2	1.2	13.3	0.1	0.7	2.4	1.3	

Table 4K of the 2017/18 Cost Assessment - restated

Atypical expenditure by business unit for the 12 months ended 31 March 2018 - wholesale wastewater

	Network+ Sewage collection			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	
Operating expenditure (excl. atypicals)									
Power	6.862	2.184	1.257	54.193	0.000	(0.005)	(13.833)	0.038	50.696
Income treated as negative expenditure	(0.084)	(0.027)	(0.015)	(0.039)	0.000	0.000	(9.632)	(0.793)	(10.590)
Discharge consents	1.163	0.364	0.205	3.530	0.004	0.003	0.068	0.004	5.341
Bulk Discharge	0.000	0.000	0.000	2.390	0.000	0.009	0.096	0.001	2.496
Other operating expenditure									
- Renewals expensed in year (Infrastructure)	45.965	14.603	8.419	0.000	0.000	0.000	0.000	0.000	68.987
- Renewals expensed in year (Non-Infrastructure)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
- Other operating expenditure excluding renewals	56.173	15.502	7.250	109.143	0.758	10.982	49.799	19.023	268.630
Local authority and Cumulo rates	0.000	0.000	0.000	28.538	0.000	0.000	9.005	0.851	38.394
Total operating expenditure excluding third party services	110.079	32.626	17.116	197.755	0.762	10.989	35.503	19.124	423.954
Third party services	3.026	0.396	0.105	0.478	0.000	0.016	0.049	0.027	4.097
Total Operating Expenditure	113.105	33.022	17.221	198.233	0.762	11.005	35.552	19.151	428.051
Capital expenditure (excl. atypicals)									
Maintaining the long term capability of the assets - infra	70.798	(0.002)	0.004	0.000	0.000	0.000	0.000	0.000	70.800
Maintaining the long term capability of the assets - non-infra	28.021	3.515	1.226	115.451	0.216	1.246	78.233	7.676	236.776
Other capital expenditure - infra	31.374	(1.623)	0.000	0.000	0.000	0.000	0.000	0.000	29.751
Other capital expenditure - non-infra	4.330	0.103	0.049	137.360	0.000	0.011	(1.280)	0.002	139.382
Infrastructure network reinforcement	3.838	3.471	0.000	0.011	0.000	0.000	0.000	0.000	7.320
Total gross capital expenditure (excluding third party)	138.361	5.464	1.279	252.822	0.216	1.257	76.952	7.678	484.029
Third party services	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.040
Total gross capital expenditure	138.401	5.464	1.279	252.822	0.216	1.257	76.952	7.678	484.069
Grants and contributions	34.822	0.040	0.000	0.612	0.000	0.000	0.000	0.000	35.474
Totex	216.684	38.446	18.500	450.443	0.978	12.262	112.504	26.829	876.646
Cash expenditure (excl. atypicals)									
Pension deficit recovery payments	2.482	0.691	0.313	3.708	0.037	0.163	1.880	0.165	9.439
Other cash items	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Totex including cash items	219.166	39.137	18.813	454.151	1.015	12.425	114.384	26.994	886.085
Atypical expenditure									
Restructuring costs	0.576	0.168	0.088	0.896	0.004	0.060	0.284	0.104	2.180
Total atypical expenditure	0.576	0.168	0.088	0.896	0.004	0.060	0.284	0.104	2.180
Total expenditure	219.742	39.305	18.901	455.047	1.019	12.485	114.668	27.098	888.265

Table 4K – as previously published

Atypical expenditure by business unit for the 12 months ended 31 March 2018 - wholesale wastewater

	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	£m	
Operating expenditure (excl. atypicals)									
Power	6.862	2.184	1.257	54.193	0.000	(0.005)	(13.833)	0.038	50.696
Income treated as negative expenditure	(0.084)	(0.027)	(0.015)	(0.039)	0.000	0.000	(9.632)	(0.793)	(10.590)
Discharge consents	1.163	0.364	0.205	3.530	0.004	0.003	0.068	0.004	5.341
Bulk Discharge	0.000	0.000	0.000	2.390	0.000	0.009	0.096	0.001	2.496
Other operating expenditure									
- Renewals expensed in year (Infrastructure)	45.965	14.603	8.419	0.000	0.000	0.000	0.000	0.000	68.987
- Renewals expensed in year (Non-Infrastructure)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
- Other operating expenditure excluding renewals	56.173	15.502	7.250	109.143	0.758	10.982	49.799	19.023	268.630
Local authority and Cumulo rates	0.000	0.000	0.000	28.538	0.000	0.000	9.005	0.851	38.394
Total operating expenditure excluding third party services	110.079	32.626	17.116	197.755	0.762	10.989	35.503	19.124	423.954
Third party services	3.026	0.396	0.105	0.478	0.000	0.016	0.049	0.027	4.097
Total Operating Expenditure	113.105	33.022	17.221	198.233	0.762	11.005	35.552	19.151	428.051
Capital expenditure (excl. atypicals)									
Maintaining the long term capability of the assets - infra	70.798	(0.002)	0.004	0.000	0.000	0.000	0.000	0.000	70.800
Maintaining the long term capability of the assets - non-infra	28.439	3.614	1.275	115.842	0.216	1.257	78.455	7.678	236.776
Other capital expenditure - infra	31.374	(1.623)	0.000	0.000	0.000	0.000	0.000	0.000	29.751
Other capital expenditure - non-infra	3.912	0.004	0.000	136.969	0.000	(0.000)	(1.503)	(0.000)	139.382
Infrastructure network reinforcement	3.838	3.471	0.000	0.011	0.000	0.000	0.000	0.000	7.320
Total gross capital expenditure (excluding third party)	138.361	5.464	1.279	252.822	0.216	1.257	76.952	7.678	484.029
Third party services	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.040
Total gross capital expenditure	138.401	5.464	1.279	252.822	0.216	1.257	76.952	7.678	484.069
Grants and contributions	34.822	0.040	0.000	0.612	0.000	0.000	0.000	0.000	35.474
Totex	216.684	38.446	18.500	450.443	0.978	12.262	112.504	26.829	876.646
Cash expenditure (excl. atypicals)									
Pension deficit recovery payments	2.482	0.691	0.313	3.708	0.037	0.163	1.880	0.165	9.439
Other cash items	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Totex including cash items	219.166	39.137	18.813	454.151	1.015	12.425	114.384	26.994	886.085
Atypical expenditure									
Restructuring costs	0.576	0.168	0.088	0.896	0.004	0.060	0.284	0.104	2.180
Total atypical expenditure	0.576	0.168	0.088	0.896	0.004	0.060	0.284	0.104	2.180
Total expenditure	219.742	39.305	18.901	455.047	1.019	12.485	114.668	27.098	888.265

Table 4M of the 2017/18 Cost Assessment - restated

Enhancement capital expenditure by purpose for the 12 months ended 31st March 2018 - wholesale wastewater

	Expenditure in report Year									Cumulative expenditure on schemes completed in the report year									
	Network+ Sewage Collection			Network+ Sewage treatment		Sludge				Total	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 distribution	Foul		Surface water drainage	Highway Drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge distribution		
£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m		
Enhancement capital expenditure by purpose																			
First time sewerage (s101A)	0.481	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.481	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Sludge enhancement (quality)	0.000	0.000	0.000	0.000	0.000	0.000	(0.008)	0.000	(0.008)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Sludge enhancement (growth)	0.000	0.000	0.000	0.000	0.000	(0.000)	(1.495)	0.000	(1.495)	0.000	0.000	0.000	0.000	0.000	0.000	0.469	0.000	0.469	
NEP - Conservation drivers	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NEP - Eels Regulations (measures at outfalls)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NEP - Event Duration Monitoring at intermittent discharges	1.239	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.239	0.752	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.752	
NEP - Flow monitoring at sewage treatment works	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NEP - Monitoring of pass forward flows at CSOs	0.459	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.459	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NEP - Schemes to increase flow to full treatment	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NEP - Schemes to increase storm tank capacity	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NEP - Storage schemes to reduce spill frequency at CSOs, storm tanks, etc.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NEP - Chemicals monitoring/ investigations/ options appraisals	0.000	0.000	0.000	2.591	0.000	0.000	0.000	0.000	2.591	0.000	0.000	0.000	3.213	0.000	0.000	0.000	0.000	3.213	
NEP - National phosphorus removal technology investigations	0.000	0.000	0.000	0.042	0.000	0.000	0.000	0.000	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NEP - Groundwater schemes	0.048	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NEP - Investigations	0.000	0.000	0.000	2.112	0.000	0.000	0.000	0.000	2.112	0.000	0.000	0.000	3.071	0.000	0.000	0.000	0.000	3.071	
NEP - Nutrients (N removal)	0.000	0.000	0.000	(0.000)	0.000	0.000	0.000	0.000	(0.000)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NEP - Nutrients (P removal at activated sludge STWs)	0.000	0.000	0.000	10.123	0.000	0.000	0.000	0.000	10.123	0.000	0.000	0.000	12.789	0.000	0.000	0.000	0.000	12.789	
NEP - Nutrients (P removal at filter bed STWs)	0.000	0.000	0.000	8.951	0.000	0.000	0.000	0.000	8.951	0.000	0.000	0.000	10.291	0.000	0.000	0.000	0.000	10.291	
NEP - Reduction of sanitary parameters	0.000	0.000	0.000	70.994	0.000	0.000	0.000	0.000	70.994	0.000	0.000	0.000	22.701	0.000	0.000	0.000	0.000	22.701	
NEP - UV disinfection (or similar)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NEP - Discharge relocation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NEP - Flow 1 schemes	0.000	0.000	0.000	1.202	0.000	0.000	0.000	0.000	1.202	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Odour	0.000	0.000	0.000	9.746	0.000	0.000	0.001	(0.000)	9.747	0.000	0.000	0.000	4.596	0.000	0.000	0.000	0.000	4.596	
New development and growth	14.140	1.772	0.000	0.000	0.000	0.000	0.000	0.000	15.912	9.973	1.084	0.000	0.000	0.000	0.000	0.000	0.000	11.057	
Growth at sewage treatment works (excluding sludge treatment)	0.000	0.000	0.000	27.074	0.000	0.000	0.000	0.000	27.074	0.000	0.000	0.000	1.144	0.000	0.000	0.000	0.000	1.144	
Resilience	0.000	0.000	0.000	1.129	0.000	0.000	0.000	0.000	1.129	0.000	0.000	0.000	0.547	0.000	0.000	0.254	0.000	0.801	
SEMD	(0.015)	0.000	0.000	3.252	0.000	(0.000)	0.000	(0.000)	3.238	0.000	0.000	0.000	9.666	0.000	0.000	0.000	0.000	9.666	
Reduce flooding risk for properties	14.916	0.063	0.000	(0.033)	0.000	0.000	0.000	0.000	14.947	6.698	0.066	0.000	0.000	0.000	0.000	0.000	0.000	6.764	
Quality spend at CSOs and quality allocation to Deephams inlet works	0.285	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.285	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Tideway quality (NEP). Excludes Lee Tunnel and sludge.	(0.002)	0.000	0.000	(0.278)	0.000	0.000	0.000	0.000	(0.279)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Lee Tunnel	7.629	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.629	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Non-SEMD related security enhancement	0.361	0.106	0.049	0.464	0.000	0.011	0.221	0.002	1.216	0.311	0.111	0.049	0.575	0.000	0.011	0.221	0.002	1.281	
Total enhancement capital expenditure	39.542	1.951	0.049	137.371	0.000	0.011	(1.280)	0.002	177.646	17.734	1.261	0.049	68.594	0.000	0.011	0.944	0.002	88.595	

Please note: Due to the addition of the new line 'non-SEMD related security enhancement' as required by Ofwat, the apportionment of certain overheads across all lines has also changed and therefore, there are slight variations in new values reported.

Table 4M – as previously published

Enhancement capital expenditure by purpose for the 12 months ended 31st March 2018 - wholesale wastewater

	Expenditure in report Year								Cumulative expenditure on schemes completed in the report year									
	Network+ Sewage Collection			Network+ Sewage treatment		Sludge			Total	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 distribution		Foul	Surface water drainage	Highway Drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge distribution	
									£m									£m
Enhancement capital expenditure by purpose																		
First time sewage (S101a)	0.480	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.480	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sludge enhancement (quality)	0.000	0.000	0.000	0.000	0.000	0.000	(0.008)	0.000	(0.008)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sludge enhancement (growth)	0.000	0.000	0.000	0.000	0.000	(0.000)	(1.496)	0.000	(1.496)	0.000	0.000	0.000	0.000	0.000	0.000	0.468	0.000	0.468
NEP - Conservation drivers	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEP - Eels Regulations (measures at outfalls)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEP - Event Duration Monitoring at intermittent discharges	1.237	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.237	0.747	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.747
NEP - Flow monitoring at sewage treatment works	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEP - Monitoring of pass forward flows at CSOs	0.459	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.459	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEP - Schemes to increase flow to full treatment	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEP - Schemes to increase storm tank capacity	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEP - Storage schemes to reduce spill frequency at CSOs, storm tanks, etc.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEP - Chemicals monitoring / investigations / options appraisals	0.000	0.000	0.000	2.592	0.000	0.000	0.000	0.000	2.592	0.000	0.000	0.000	3.222	0.000	0.000	0.000	0.000	3.222
NEP - National phosphorus removal technology investigations	0.000	0.000	0.000	0.042	0.000	0.000	0.000	0.000	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEP - Groundwater schemes	0.047	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEP - Investigations	0.000	0.000	0.000	2.113	0.000	0.000	0.000	0.000	2.113	0.000	0.000	0.000	3.079	0.000	0.000	0.000	0.000	3.079
NEP - Nutrients (N removal)	0.000	0.000	0.000	(0.008)	0.000	0.000	0.000	0.000	(0.008)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEP - Nutrients (P removal at activated sludge STWs)	0.000	0.000	0.000	10.128	0.000	0.000	0.000	0.000	10.128	0.000	0.000	0.000	12.824	0.000	0.000	0.000	0.000	12.824
NEP - Nutrients (P removal at filter bed STWs)	0.000	0.000	0.000	8.955	0.000	0.000	0.000	0.000	8.955	0.000	0.000	0.000	10.319	0.000	0.000	0.000	0.000	10.319
NEP - Reduction of sanitary parameters	0.000	0.000	0.000	71.032	0.000	0.000	0.000	0.000	71.032	0.000	0.000	0.000	22.762	0.000	0.000	0.000	0.000	22.762
NEP - UV disinfection (or similar)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEP - Discharge relocation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEP - Flow 1 schemes	0.000	0.000	0.000	1.203	0.000	0.000	0.000	0.000	1.203	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Odour	0.000	0.000	0.000	9.752	0.000	0.000	0.001	(0.000)	9.753	0.000	0.000	0.000	4.609	0.000	0.000	0.000	0.000	4.609
New development and growth	14.120	1.779	0.000	0.000	0.000	0.000	0.000	0.000	15.898	9.912	1.095	0.000	0.000	0.000	0.000	0.000	0.000	11.007
Growth at sewage treatment works (excluding sludge treatment)	0.000	0.000	0.000	27.088	0.000	0.000	0.000	0.000	27.088	0.000	0.000	0.000	1.147	0.000	0.000	0.000	0.000	1.147
Resilience	0.000	0.000	0.000	1.130	0.000	0.000	0.000	0.000	1.130	0.000	0.000	0.000	0.549	0.000	0.000	0.253	0.000	0.802
SEMD	(0.015)	0.000	0.000	3.254	0.000	(0.000)	0.000	(0.000)	3.239	0.000	0.000	0.000	9.693	0.000	0.000	0.000	0.000	9.693
Reduce flooding risk for properties	14.895	0.063	0.000	(0.033)	0.000	0.000	0.000	0.000	14.925	6.657	0.067	0.000	0.000	0.000	0.000	0.000	0.000	6.723
Quality spend at CSOs and quality allocation to Deephams inlet works	0.285	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.285	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Tideway quality (NEP). Excludes Lee Tunnel and sludge.	(0.002)	0.000	0.000	(0.278)	0.000	0.000	0.000	0.000	(0.279)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Lee Tunnel	7.618	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.618	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total enhancement capital expenditure	39.124	1.852	0.000	136.980	0.000	(0.000)	(1.503)	(0.000)	176.453	17.316	1.162	0.000	68.203	0.000	0.000	0.721	0.000	87.402

[Table 4Q:](#)

Following publication of table 4Q in our cost assessment files, a transcription error was highlighted in line 4Q.2 'Residential properties billed for measured water (not external meter)'. We have updated this in our cost assessment files as follows:

[Table 4Q of the 2017/18 Cost Assessment - restated](#)

Non-financial data - Properties, population and other for the 12 months ended 31 March 2018 - wholesale water

	Units	Input
Properties and population		
Residential properties billed for measured water (external meter)	000's	1081.56918
Residential properties billed for measured water (not external meter)	000's	267.02082
Business properties billed for measured water	000's	163.379
Residential properties billed for unmeasured water	000's	2117.4765
Business properties billed for unmeasured water	000's	35.801
Total business connected properties at year end	000's	218.953
Total residential properties at year end	000's	3607.469
Total connected properties at year end	000's	3826.422
Number of residential meters renewed	000's	19.11
Number of business meters renewed	000's	0.553
Number of meter installed at request of optants	000's	16.559
Number of selective meters installed	000's	98.053
Total number of new business connections	000's	2.883
Total number of new residential connections	000's	36.028
Total population served	000's	10012.827
Number of business meters (billed properties)	000's	198.784
Number of residential meters (billed properties)	000's	1486.352
Company Area	km ²	8008
Other		
Number of lead communication pipes replaced for water quality	nr	7591
Total supply side enhancements to the supply demand balance (dry year critical / peak conditions)	MI/d	0
Total supply side enhancements to the supply demand balance (dry year annual average conditions)	MI/d	0
Total demand side enhancements to the supply demand balance (dry year critical / peak conditions)	MI/d	8.71
Total demand side enhancements to the supply demand balance (dry year annual average conditions)	MI/d	4.25
Energy consumption - network pus	kWh	418037.138
Energy consumption - water resources	kWh	140141.027
Energy consumption - wholesale	kWh	558178.165
Peak factor	%	1.1245
Mean zonal compliance	%	0.9996
Volume of leakage above or below the sustainable economic level	MI/d	74.75

[Table 4Q – as previously published](#)

Pro forma 4Q

Non-financial data - Properties, population and other for the 12 months ended 31 March 2018 - wholesale water

	Units	Input
Properties and population		
Residential properties billed for measured water (external meter)	000's	1081.56918
Residential properties billed for measured water (not external meter)	000's	367.02082
Business properties billed for measured water	000's	163.379
Residential properties billed for unmeasured water	000's	2117.4765
Business properties billed for unmeasured water	000's	35.801
Total business connected properties at year end	000's	218.953
Total residential properties at year end	000's	3607.469
Total connected properties at year end	000's	3826.422
Number of residential meters renewed	000's	19.11
Number of business meters renewed	000's	0.553
Number of meter installed at request of optants	000's	16.559
Number of selective meters installed	000's	98.053
Total number of new business connections	000's	2.883
Total number of new residential connections	000's	36.028
Total population served	000's	10012.827
Number of business meters (billed properties)	000's	198.784
Number of residential meters (billed properties)	000's	1486.352
Company Area	km ²	8008
Other		

Number of lead communication pipes replaced for water quality	nr	7591
Total supply side enhancements to the supply demand balance (dry year critical / peak conditions)	MI/d	0
Total supply side enhancements to the supply demand balance (dry year annual average conditions)	MI/d	0
Total demand side enhancements to the supply demand balance (dry year critical / peak conditions)	MI/d	8.71
Total demand side enhancements to the supply demand balance (dry year annual average conditions)	MI/d	4.25
Energy consumption - network pus	kWh	418037.138
Energy consumption - water resources	kWh	140141.027
Energy consumption - wholesale	kWh	558178.165
Peak factor	%	1.1245
Mean zonal compliance	%	0.9996
Volume of leakage above or below the sustainable economic level	MI/d	74.75

Table 4O:

Following publication of table 4O in our cost assessment files, the following revisions were made to ensure consistency with previously reported data. We have updated this in our cost assessment files as follows:

Table 4O of the 2017/18 Cost Assessment – restated

Pro forma 4O

Wholesale wastewater service - Large sewage treatment works for the 12 months ended 31 March 2018

Sewage treatment works - Explanatory variables	Units		
		LITTLE MARLOW	NEWBURY
Works name	text		
Classification of treatment works	text	3A2	3A2
Population equivalent of total load received	0	184	89
Suspended solida consent	mg/l	15	30
BOD ₅ consent	mg/l	9	10
Ammonia consent	mg/l	5	2
Phosphorus consent	mg/l	1	1
UV consent	mW/s/cm ²	None	None
Load received by STW	kgBOD ₅ /d	11,062.308	5,319.551
Flow passed to Full Treatment	m ³ /d	32,252.209	28,523.404

Table 4O of the 2017/18 Cost Assessment – as previously published

Pro forma 4O

Wholesale wastewater service - Large sewage treatment works for the 12 months ended 31 March 2018

Sewage treatment works - Explanatory variables	Units		
		LITTLE MARLOW	NEWBURY
Works name	text		
Classification of treatment works	text	3A2	3A2
Population equivalent of total load received	0	184	89
Suspended solida consent	mg/l	35	30
BOD ₅ consent	mg/l	20	10
Ammonia consent	mg/l	5	2
Phosphorus consent	mg/l	1	2
UV consent	mW/s/cm ²	None	None
Load received by STW	kgBOD ₅ /d	11,062.308	5,319.551
Flow passed to Full Treatment	m ³ /d	32,252.209	28,523.404

We have also removed duplication within the cost assessment publication for our Hogsmill sewage treatment works.

[RORE Key drivers table:](#)

Following publication of the RORE key drivers table in our 2017/18 Annual Performance Report (page 220), the following transposition error was highlighted. We have updated this in our published Annual Report and Annual Performance Report as follows:

[RORE Key drivers – restated](#)

RORE key drivers	2015/16	2016/17	2017/18	Cumulative RORE (simple arithmetic average)
Base allowed return	5.63%	5.62%	5.61%	5.62%
Totex	(1.05%)	(2.07%)	(1.52%)	(1.54%)
ODIs	(0.25%)	(0.28%)	(0.61%)	(0.38%)
Exiting non-household retail market	0.00%	0.00%	1.17%	0.39%
Financing	(0.26%)	0.61%	1.97%	0.78%
Actual RORE	4.07%	3.88%	6.63%	4.86%

[RORE Key drivers – as previously published](#)

RORE key drivers	2015/16	2016/17	2017/18	Cumulative RORE (simple arithmetic average)
Base allowed return	5.63%	5.62%	5.61%	5.62%
Totex	(1.50%)	(2.07%)	(1.52%)	(1.54%)
ODIs	(0.25%)	(0.28%)	(0.61%)	(0.38%)
Exiting non-household retail market	0.00%	0.00%	1.17%	0.39%
Financing	(0.26%)	0.61%	1.97%	0.78%
Actual RORE	4.07%	3.88%	6.63%	4.86%

[Tables 4V & 4W:](#)

Following publication of tables 4V & 4W in our cost assessment files, we have restated our employment costs to remove the effect of a non-employment cost which was incorrectly mapped to employment cost in our original submission for 2017/18; please see details below:

[Table 4V of the 2017/18 Cost Assessment – restated](#)

Other expenditure for the 12 months ended 31 March 2018 wholesale water					
Item	Water resources	Raw water distribution	Water treatment	Treated water distribution	Total
Employment costs - directly allocated	5.042	0.433	15.850	24.142	45.467
Employment costs - indirectly allocated	3.892	0.317	8.605	33.861	46.675
Number FTEs consistent with 4V.9 above	134.237	7.180	476.396	359.080	976.893
Number FTEs consistent with 4V.10 above	93.406	10.676	157.775	981.098	1,242.955
Costs associated with Traffic Management Act	0.000	0.000	0.000	12.022	12.022
Service Charges					
Canal & River Trust abstraction charges/ discharge consents	0.368				0.368
Environment Agency abstraction charges/ discharge consents	12.749				12.749
Other abstraction charges/ discharge consents	0.000				0.000
Statutory water softening	0.000	0.000	0.000	0.000	0.000

[Table 4V of the 2017/18 Cost Assessment – as previously published](#)

Other expenditure for the 12 months ended 31 March 2018 wholesale water					
Item	Water resources	Raw water distribution	Water treatment	Treated water distribution	Total
Employment costs - directly allocated	7.471	0.357	23.721	20.537	52.086
Employment costs - indirectly allocated	5.199	0.531	7.856	56.111	69.697
Number FTEs consistent with 4V.9 above	134.237	7.180	476.396	359.080	976.893
Number FTEs consistent with 4V.10 above	93.406	10.676	157.775	981.098	1,242.955

Costs associated with Traffic Management Act	0.000	0.000	0.000	12.022	12.022
Service Charges					
Canal & River Trust abstraction charges/ discharge consents	0.368				0.368
Environment Agency abstraction charges/ discharge consents	12.749				12.749
Other abstraction charges/ discharge consents	0.000				0.000
Statutory water softening	0.000	0.000	0.000	0.000	0.000

[Table 4W:](#)

Following publication of table 4W in our cost assessment files, we have restated our employment cost as follows:

[Table 4W of the 2017/18 Cost Assessment – restated](#)

Other expenditure for the 12 months ended 31 March 2018 Wholesale wastewater				
Item	Network Plus Sewage Collection	Network Plus Sewage Treatment	Sludge	Total
Employment costs - directly allocated	18.712	27.181	11.870	57.763
Employment costs - indirectly allocated	12.817	13.283	8.153	34.253
Number FTEs consistent with 4W.17 above	557.269	711.382	416.295	1,684.947
Number FTEs consistent with 4W.18 above	355.823	270.721	162.620	789.164
Costs associated with Traffic Management Act	1.546	0.000	0.000	1.546
Costs associated with Industrial Emissions Directive	0.000	0.000	0.113	0.113
Service Charges				
Canal & River Trust discharge consents	0.854	0.000	0.000	0.854
Environment Agency discharge consents	0.573	3.448	0.000	4.022
Other discharge charges / permits	0.307	0.130	0.033	0.470

[Table 4W of the 2017/18 Cost Assessment – as previously published](#)

Other expenditure for the 12 months ended 31 March 2018 Wholesale wastewater				
Item	Network Plus Sewage Collection	Network Plus Sewage Treatment	Sludge	Total
Employment costs - directly allocated	30.852	37.492	17.161	85.504
Employment costs - indirectly allocated	19.699	14.268	6.704	40.670
Number FTEs consistent with 4W.17 above	557.269	711.382	416.295	1,684.947
Number FTEs consistent with 4W.18 above	355.823	270.721	162.620	789.164
Costs associated with Traffic Management Act	1.546	0.000	0.000	1.546
Costs associated with Industrial Emissions Directive	0.000	0.000	0.113	0.113
Service Charges				
Canal & River Trust discharge consents	0.854	0.000	0.000	0.854
Environment Agency discharge consents	0.573	3.448	0.000	4.022
Other discharge charges / permits	0.307	0.130	0.033	0.470

[Table 4P:](#)

Following publication of table 4P in our cost assessment files, we have published the restatements highlighted below. This restatement has arisen because an immaterial length of main (less than 1% of total mains length in 2017/18) had been incorrectly allocated based on age.

[Table 4P of the 2017/18 Cost Assessment – restated](#)

Water distribution		
Total length of potable mains as at 31 March	km	31460.6
Total length of mains relined	km	0.3
Total length of mains renewed	km	126.19
Total length of new mains	km	122.8

Potable water mains (<320mm)	km	28422.7
Potable water mains 320mm - 450mm	km	927.9
Potable water mains 450mm - 610mm	km	1046.5
Potable water mains > 610mm	km	1063.4
Total length of non-potable and partially treated main for supplying customers	km	3.9
Total length of non-potable and partially treated main for treatment	km	0
Capacity of booster pumping stations	kW	114349
Capacity of service reservoirs	MI	3259
Capacity of water towers	MI	18
Distribution input	MI/d	2680.88
Water delivered (non-potable)	MI/d	0
Water delivered (potable)	MI/d	2168.81
Water delivered (billed measured residential)	MI/d	493.12
Water delivered (billed measured business)	MI/d	481.82
Total leakage	MI/d	694.65
Distribution losses	MI/d	494.08
Water taken unbilled	MI/d	60.53
Number of lead communication pipes	nr	1231603.94
Number of galvanised iron communication pipes	nr	270382.85
Number of other communication pipes	nr	1057768.21
Number of boost pumping stations	nr	315
Total number of service reservoirs	nr	243
Number of water towers	nr	29
Total length of mains laid or structurally refurbished pre 1880	km	4734.7
Total length of mains laid or structurally refurbished between 1880 and 1900	km	3171.4
Total length of mains laid or structurally refurbished between 1901 and 1920	km	3917.8
Total length of mains laid or structurally refurbished between 1921 and 1940	km	5295.7
Total length of mains laid or structurally refurbished between 1941 and 1960	km	2855.4
Total length of mains laid or structurally refurbished between 1961 and 1980	km	4514.7
Total length of mains laid or structurally refurbished between 1981 and 2000	km	2845.7
Total length of mains laid or structurally refurbished post 2001	nr	4125.1
Average pumping head - distribution	m.hd	76.58

Table 4P of the 2017/18 Cost Assessment – as previously published

Water distribution		
Total length of potable mains as at 31 March	km	31460.6
Total length of mains relined	km	0.3
Total length of mains renewed	km	126.19
Total length of new mains	km	122.8
Potable water mains (<320mm)	km	28422.7
Potable water mains 320mm - 450mm	km	927.9
Potable water mains 450mm - 610mm	km	1046.5
Potable water mains > 610mm	km	1063.4
Total length of non-potable and partially treated main for supplying customers	km	3.9
Total length of non-potable and partially treated main for treatment	km	0
Capacity of booster pumping stations	kW	114349
Capacity of service reservoirs	MI	3259
Capacity of water towers	MI	18
Distribution input	MI/d	2680.88
Water delivered (non-potable)	MI/d	0
Water delivered (potable)	MI/d	2168.81
Water delivered (billed measured residential)	MI/d	493.12
Water delivered (billed measured business)	MI/d	481.82
Total leakage	MI/d	694.65
Distribution losses	MI/d	494.08
Water taken unbilled	MI/d	60.53
Number of lead communication pipes	nr	1231603.94
Number of galvanised iron communication pipes	nr	270382.85
Number of other communication pipes	nr	1057768.21
Number of boost pumping stations	nr	315
Total number of service reservoirs	nr	243
Number of water towers	nr	29
Total length of mains laid or structurally refurbished pre 1880	km	4761.7
Total length of mains laid or structurally refurbished between 1880 and 1900	km	3169.7
Total length of mains laid or structurally refurbished between 1901 and 1920	km	3926.7
Total length of mains laid or structurally refurbished between 1921 and 1940	km	5287.2
Total length of mains laid or structurally refurbished between 1941 and 1960	km	2870.8
Total length of mains laid or structurally refurbished between 1961 and 1980	km	4525.4
Total length of mains laid or structurally refurbished between 1981 and 2000	km	2889.2
Total length of mains laid or structurally refurbished post 2001	nr	4163.2
Average pumping head - distribution	m.hd	76.58