



Appendix – APR data tables 2020-21

Tables 4B and 4J to 9A

from
**Southern
Water** 

The Southern Water logo graphic consists of three stylized, wavy lines in shades of blue, positioned to the right of the text 'Southern Water'.

KPMG Assurance Statement - Appendix to the Annual Performance Report

In line with Ofwat's RAG3.12, this Appendix to the Annual Performance Report presents the remaining regulatory data tables 4A to 8D which form part of the main Annual Performance Report published at southernwater.co.uk/our-reports

KPMG LLP were engaged to provide independent limited assurance over the non-financial data highlighted in this appendix marked with the symbol [*] for the reporting year ended 31 March 2021 and using the assurance standard ISAE (UK) 3000. KPMG has issued an unqualified opinion over the selected data. KPMG's full assurance statement is available on page 74 of the main Annual Performance Report published at southernwater.co.uk/our-reports



Pro forma 4B
Southern Water

Analysis of debt

Line description	Instrument identifier	Credit rating	Currency	Class/subordination	Further information	Instrument start date (if after 31/07/21)	Years to maturity	Principal sum outstanding as at 31 March 2021 (excluding unamortised debt issue costs)	Amount used to calculate nominal interest cost and cash interest payment (might be equal or differ from principal sum outstanding)	Years to maturity x principal sum	Real RPI Coupon	Real CPI Coupon	Reference Interest Rate	Margin over market index	Nominal Interest Rate	Nominal Interest Cost (Full year equivalent)	Cash Interest Payment (Full year equivalent)	Unamortised debt issue costs as at 31 March 2021	Value per balance sheet at 31 March 2021	Fair value of debt at 31 March 2021	RAG 4 reference
Units	Text	Text	Text	Text	Text	Date	Years	Em (nominal)	Em (nominal)	Em (nominal)	%	%	%	%	%	Em (nominal)	Em (nominal)	Em (nominal)	Em (nominal)	Em (nominal)	
DPS	-	-	-	-	-	dd/mm/yy	1	3	3	3	2	2	2	2	2	3	3	3	3	3	

Fixed rate instruments																					
A1	XS0172989252	AA/A2	GBP	A	wrapped		8.0	350,000	350,000	2800,000	4.92%	5.53%			6.19%	21,672	21,672	1,185	348,815	465,535	4B.1
A4	XS0172992637	BBB+/Baa3/BBB+	GBP	A			5.0	350,000	350,000	1750,000	5.36%	5.97%			6.64%	23,240	23,240	0,874	349,126	445,330	4B.2
A8	XS0220566383	AA/A2	GBP	A	wrapped		20.0	150,000	150,000	3000,000	3.74%	4.34%			5.00%	7,500	7,500	2,818	147,182	215,279	4B.3
A9	XS0271386244	AA/A2	GBP	A	wrapped		31.0	200,000	200,000	6200,000	3.25%	3.84%			4.50%	9,000	9,000	2,726	197,274	301,670	4B.4
A10	XS0308998144	AA/A2	GBP	A	wrapped		35.0	300,000	300,000	10500,000	3.87%	4.47%			5.13%	15,375	15,375	7,247	292,753	513,399	4B.5
A12	XS2180916525	BBB+/Baa3/BBB+	GBP	A		28/05/2020	7.0	375,000	375,000	2625,000	1.15%	1.73%			2.38%	8,906	8,906	4,825	370,175	384,195	4B.6
A13	XS2180916871	BBB+/Baa3/BBB+	GBP	A		28/05/2020	16.0	450,000	450,000	7200,000	1.77%	2.35%			3.00%	13,500	13,500	6,527	443,473	473,513	4B.7
A14	XS2325617939	BBB+/Baa3/BBB+	GBP	A		30/03/2021	6.0	300,000	300,000	1800,000	0.41%	0.99%			1.63%	4,875	4,875	5,657	294,343	295,752	4B.8
USPP			GBP	A			10.0	175,000	175,000	1750,000	1.55%	2.14%			2.78%	4,865	4,865	0,855	174,145	175,000	4B.9
USPP			GBP	A			15.0	75,000	75,000	1125,000	1.73%	2.31%			2.96%	2,220	2,220	0,408	74,592	75,000	4B.10
Inter-company loan with subsidiary (SWS Finance)			GBP	n/a			1.0	30,250	30,250	30,250	0.00%	0.00%			0.00%	0,000	0,000	0,000	30,250	0,000	4B.11
Finance lease			GBP	n/a			15.0	29,673	29,673	445,102	0.00%	0.00%			0.00%	0,000	0,000	0,000	29,673	29,673	4B.12
AI swap to RPI linked			GBP	A	swap to RPI		10.0	-50,000	-50,000	-500,000	15.09%	15.76%			16.49%	-8,243	-8,243	0,000	0,000	0,000	4B.13
AI&A4 swap to RPI linked			GBP	A	swap to RPI		16.0	-441,200	-441,200	-7059,200	2.81%	3.41%			4.06%	-17,913	-17,913	0,000	0,000	0,000	4B.14
A8 swap to RPI linked			GBP	A	swap to RPI		20.0	-150,000	-150,000	-3000,000	13.91%	14.57%			15.29%	-22,941	-22,941	0,000	0,000	0,000	4B.15
A9 swap to RPI linked			GBP	A	swap to RPI		31.0	-200,000	-200,000	-6200,000	13.54%	14.19%			14.91%	-29,828	-29,828	0,000	0,000	0,000	4B.16
A10 swap to RPI linked			GBP	A	swap to RPI		35.5	-250,000	-250,000	-8875,000	14.04%	14.70%			15.42%	-38,548	-38,548	0,000	0,000	0,000	4B.17
A10 swap to RPI linked			GBP	A	wap to RPI (break 202		35.5	-50,000	-50,000	-1775,000	3.87%	4.47%			5.13%	-2,563	-2,563	0,000	0,000	0,000	4B.18
Swap to RPI linked			GBP	A	wap to RPI (break 202		16.0	-175,408	-175,408	-2806,528	3.79%	4.39%			5.05%	-8,851	-8,851	0,000	0,000	0,000	4B.19
Preference shares			GBP	A			17.0	69,829	69,829	1187,093	2.26%	2.85%			3.50%	2,444	2,444	0,000	0,000	69,829	4B.20
Totals for fixed rate instruments								1538,144	1538,144	10196,717						-15,289	-15,289	33,123	2751,801	3444,175	4B.201

RPI linked instruments																					
A2a	XS0173036194	AA/A2	GBP	A	wrapped		13.0	247,643	247,643	3219,360	3.71%				4.96%	12,292	9,178	0,000	247,643	415,505	4B.403
A2b	XS0173059998	AA/A2	GBP	A	wrapped		13.0	57,732	57,732	750,512	3.71%				4.96%	2,866	2,140	0,000	57,732	101,201	4B.404
A5	XS0173041517	BBB+/Baa3/BBB+	GBP	A			2.0	247,643	247,643	495,286	3.82%				5.08%	12,568	9,450	0,000	247,643	271,911	4B.405
E165m Artesian 4.076% Index Linked Bonds due 2033		AA/A2	GBP	A	wrapped		12.0	272,547	272,547	3270,564	4.08%				5.34%	14,549	11,109	0,000	272,547	397,525	4B.406
E156m Artesian 3.635% Index Linked Bonds due 2032		AA/A2	GBP	A	wrapped		11.0	252,221	252,221	2774,430	3.64%				4.89%	12,338	9,168	0,000	252,221	422,140	4B.407
E100m EIB Index Linked loan due 2025			GBP	A	Amortising		4.0	79,841	79,841	319,364	0.00%				0.00%	0,000	0,000	0,000	79,841	-79,841	4B.408
AI swap to RPI linked			GBP	A	swap to RPI		25.0	50,000	50,000	1250,000	4.54%				5.81%	2,906	2,272			6,268	4B.409
AI&A4 swap to RPI linked			GBP	A	swap to RPI		25.0	441,200	441,200	11030,000	1.69%				2.92%	12,898	7,456			323,139	4B.410
A8 swap to RPI linked			GBP	A	swap to RPI		25.0	150,000	150,000	3750,000	2.61%				3.85%	5,774	3,908			208,058	4B.411
A9 swap to RPI linked			GBP	A	swap to RPI		31.0	200,000	200,000	6200,000	1.82%				3.05%	6,102	3,632			304,963	4B.412
A10 swap to RPI linked			GBP	A	swap to RPI		35.5	250,000	252,079	8875,000	2.92%				4.17%	10,500	7,353			525,590	4B.413
A10 swap to RPI linked			GBP	A	wap to RPI (break 202		35.5	50,000	50,633	1775,000	0.55%				1.77%	0,895	0,278			56,196	4B.414
Swap to RPI linked			GBP	A	wap to RPI (break 202		16.0	175,408	203,348	2806,528	2.56%				3.80%	7,727	5,198			8,180	4B.415
Totals for RPI linked instruments								2474,235	2504,887	46516,044						101,416	71,141	0,000	1157,627	2960,835	4B.603

Totals for all instruments								4012,379	4043,031	56712,761						86,127	55,852	33,123	3909,428	6405,010	4B.805
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Inflation Assumptions	
RPI %	1.21%
CPI %	0.63%

Indicative interest rates	
Indicative weighted average nominal interest rate	2.15%
Indicative weighted average cash interest rate	1.39%

Indicative debt portfolio breakdown	
Floating rate debt as percentage of total debt (gross)	0.00%
Fixed rate debt as percentage of total debt (gross)	38.33%
RPI linked debt as percentage of total debt (gross)	61.67%
CPI linked debt as percentage of total debt (gross)	0.00%
All index (CPI and RPI) linked debt as percentage of total debt (gross)	61.67%
Fixed rate debt and index linked debt as percentage of total debt (gross)	100.00%
Weighted average years to maturity	14.1

Pro forma 4J
Southern Water

Base expenditure analysis for the 12 months ended 31 March 2021 - water resources and water network+

Line description	Units	DPs	Water resources	Water network+				Total	RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)
				Raw water distribution	Raw water storage	Water treatment	Treated water distribution			
Operating expenditure										
Power	£m	3	4.033	0	0	10.097	3.943	18.073	4J.1	
Income treated as negative expenditure	£m	3	0	0	0	-0.021	-0.002	-0.023	4J.2	
Bulk supply	£m	3	0	0	0	0	0.338	0.338	4J.3	
Renewals expensed in year (infrastructure)	£m	3	0	0	0	0	20.684	20.684	4J.4	
Renewals expensed in year (non-infrastructure)	£m	3	0	0	0	0	0	0.000	4J.5	
Other operating expenditure	£m	3	3.711	0.205	0.267	28.656	14.012	46.851	4J.6	
Local authority and Cumulo rates	£m	3	0.802	0.105	0	1.273	7.686	9.866	4J.7	
Service Charges										
Canal & River Trust abstraction charges/ discharge consents	£m	3	0	0	0	0	0	0.000	4J.8	
Environment Agency / NRW abstraction charges/ discharge consents	£m	3	3.891	0	0	0.096	0	3.987	4J.9	
Other abstraction charges/ discharge consents	£m	3	0	0	0	0	0	0.000	4J.10	
Other operating expenditure										
Costs associated with Traffic Management Act	£m	3	0	0	0	0	1.193	1.193	4J.11	
Costs associated with lane rental schemes	£m	3	0	0	0	0	0.148	0.148	4J.12	
Statutory water softening	£m	3	0	0	0	0	0	0.000	4J.13	
Total base operating expenditure	£m	3	12.437	0.310	0.267	40.101	48.002	101.117	4J.14	
Capital expenditure										
Maintaining the long term capability of the assets - infra	£m	3	0.049	-0.006	0.618	0	13.046	13.707	4J.15	
Maintaining the long term capability of the assets - non-infra	£m	3	2.486	0	0.023	48.847	22.6	73.956	4J.16	
Total base capital expenditure	£m	3	2.535	-0.006	0.641	48.847	35.646	87.663	4J.17	
Traffic Management Act										
Projects incurring costs associated with Traffic Management Act	nr	0	0	0	0	0	33546	33546.000	4J.18	

Pro forma 4K
Southern Water

Base expenditure analysis for the 12 months ended 31 March 2021 - wastewater network + and bioresources

Line description	Units	DPs	Expenditure in report year									RAG 4 reference
			Wastewater network+					Bioresources			Total	
			Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge Transport	Sludge Treatment	Sludge Disposal		
Operating expenditure												
Power	Em	3	10.791	2.383	2.383	22.162	0.834	0.034	-2.472	0	36.115	4K.1
Income treated as negative expenditure	Em	3	-0.002	-0.001	-0.001	0	0	0	-3.496	0	-3.500	4K.2
Bulk discharge	Em	3	0	0	0	0	0	0	0	0	0.000	4K.3
Renewals expensed in year (infrastructure)	Em	3	21.356	3.24	3.24	0	0	0	0	0	27.836	4K.4
Renewals expensed in year (non-infrastructure)	Em	3	0	0	0	0	0	0	0	0	0.000	4K.5
Other operating expenditure	Em	3	30.692	6.633	6.633	55.845	1.572	4.548	15.022	5.91	126.855	4K.6
Local authority and Cumulo rates	Em	3	0.017	0.004	0.004	12.777	0.444	0	1.737	0	14.983	4K.7
Service Charges												
Canal & River Trust discharge consents	Em	3	0	0	0	0	0	0	0	0	0.000	4K.8
Environment Agency / NRW discharge consents	Em	3	0.756	0.167	0.167	2.883	0.057	0	0	0	4.030	4K.9
Other discharge charges / permits	Em	3	0	0	0	0	0	0	0	0	0.000	4K.10
Other expenditure												
Costs associated with Traffic Management Act	Em	3	0.092	0.02	0.02	0	0	0	0	0	0.132	4K.11
Costs associated with lane rental schemes	Em	3	0.049	0.011	0.011	0	0	0	0	0	0.071	4K.12
Costs associated with Industrial Emissions Directive	Em	3	0	0	0	0	0	0	0	0	0.000	4K.13
Total base operating expenditure	Em	3	63.751	12.457	12.457	93.667	2.907	4.582	10.791	5.910	206.522	4K.14
Capital expenditure												
Maintaining the long term capability of the assets - infra	Em	3	23.097	5.035	5.035	-0.002	0	0	0	0	33.165	4K.15
Maintaining the long term capability of the assets - non-infra	Em	3	17.236	3.757	3.757	73.746	0	0	12.572	0	111.068	4K.16
Total base capital expenditure	Em	3	40.333	8.792	8.792	73.744	0.000	0.000	12.572	0.000	144.233	4K.17
Traffic Management Act												
Projects incurring costs associated with Traffic Management Act	nr	0	2596	566	566	0	0	0	0	0	3728.000	4K.18

Pro forma 4L
Southern Water

Enhancement expenditure for the 12 months ended 31st March 2021 - water resources and water network+

Line description	Units	DPs	Expenditure in report year						Cumulative expenditure on schemes completed in the report year						RAG 4 reference	
			Water resources	Water network+				Total	Water resources	Water network+				Total		
				Raw water transport	Raw water storage	Water treatment	Treated water distribution			Raw water transport	Raw water storage	Water treatment	Treated water distribution			
EA/NRW environmental programme (WINEP/NEP)																
Ecological improvements at abstractions	Capex	£m	3	0.484	0	0	0.002	0.006	0.492							4L.1
Ecological improvements at abstractions	Opex	£m	3	0	0	0	1.541	0	1.541							4L.2
Ecological improvements at abstractions	Totex	£m	3	0.484	0.000	0.000	1.543	0.006	2.033							4L.3
Eels Regulations (measures at intakes)	Capex	£m	3	9.997	0	0	0	0	9.997							4L.4
Eels Regulations (measures at intakes)	Opex	£m	3	0	0	0	0	0	0.000							4L.5
Eels Regulations (measures at intakes)	Totex	£m	3	9.997	0.000	0.000	0.000	0.000	9.997							4L.6
Invasive Non Native Species	Capex	£m	3	0.002	0	0	0	0	0.002							4L.7
Invasive Non Native Species	Opex	£m	3	0	0	0	0	0	0.000							4L.8
Invasive Non Native Species	Totex	£m	3	0.002	0.000	0.000	0.000	0.000	0.002							4L.9
Drinking Water Protected Areas (schemes)	Capex	£m	3	0	0	0	0	0	0.000							4L.10
Drinking Water Protected Areas (schemes)	Opex	£m	3	0	0	0	0	0	0.000							4L.11
Drinking Water Protected Areas (schemes)	Totex	£m	3	0.000	0.000	0.000	0.000	0.000	0.000							4L.12
Water Framework Directive measure	Capex	£m	3	0	0	0	0.361	0	0.361							4L.13
Water Framework Directive measure	Opex	£m	3	0	0	0	0	0	0.000							4L.14
Water Framework Directive measure	Totex	£m	3	0.000	0.000	0.000	0.361	0.000	0.361							4L.15
Investigations	Capex	£m	3	0.614	0	0	0.02	0	0.634							4L.16
Investigations	Opex	£m	3	0	0	0	0	0	0.000							4L.17
Investigations	Totex	£m	3	0.614	0.000	0.000	0.020	0.000	0.634							4L.18
Total environmental programme expenditure	Totex	£m	3	11.097	0.000	0.000	1.924	0.006	13.027							4L.19
Supply-demand balance																
Supply-side improvements delivering benefits in 2020-2025	Capex	£m	3	1.217	0.438	0	0.024	0.591	2.270							4L.20
Supply-side improvements delivering benefits in 2020-2025	Opex	£m	3	0	0	0	0	0	0.000							4L.21
Supply-side improvements delivering benefits in 2020-2025	Totex	£m	3	1.217	0.438	0.000	0.024	0.591	2.270							4L.22
Demand-side improvements delivering benefits in 2020-2025 (excl leakage and metering)	Capex	£m	3	0	0	0	0	0	0.000							4L.23
Demand-side improvements delivering benefits in 2020-2025 (excl leakage and metering)	Opex	£m	3	0.008	0	0	0.101	0.071	0.180							4L.24
Demand-side improvements delivering benefits in 2020-2025 (excl leakage and metering)	Totex	£m	3	0.008	0.000	0.000	0.101	0.071	0.180							4L.25
Leakage improvements delivering benefits in 2020-2025	Capex	£m	3	0	0	0	0	0	0.000	0	0	0	0	0	0.000	4L.26
Leakage improvements delivering benefits in 2020-2025	Opex	£m	3	0	0	0	0	0	0.000	0	0	0	0	0	0.000	4L.27
Leakage improvements delivering benefits in 2020-2025	Totex	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4L.28
Internal interconnectors delivering benefits in 2020-2025	Capex	£m	3	0	0	0	0	0	0.000							4L.29
Internal interconnectors delivering benefits in 2020-2025	Opex	£m	3	0	0	0	0	0	0.000							4L.30
Internal interconnectors delivering benefits in 2020-2025	Totex	£m	3	0.000	0.000	0.000	0.000	0.000	0.000							4L.31
Supply demand balance improvements delivering benefits starting from 2026	Capex	£m	3	8.441	0	0	0	0.036	8.477							4L.32
Supply demand balance improvements delivering benefits starting from 2026	Opex	£m	3	0	0	0	0	0	0.000							4L.33
Supply demand balance improvements delivering benefits starting from 2026	Totex	£m	3	8.441	0.000	0.000	0.000	0.036	8.477							4L.34
Strategic regional water resources	Capex	£m	3	6.054	0.758	0	6.082	0	12.894							4L.35
Strategic regional water resources	Opex	£m	3	0	0	0	0	0	0.000							4L.36
Strategic regional water resources	Totex	£m	3	6.054	0.758	0.000	6.082	0.000	12.894							4L.37
Total supply demand expenditure	Totex	£m	3	15.720	1.196	0.000	6.207	0.698	23.821							4L.38
Metering																
New meters requested by existing customers (optants)	Capex	£m	3	0	0	0	0	0.248	0.248							4L.39
New meters requested by existing customers (optants)	Opex	£m	3	0	0	0	0	0	0.000							4L.40
New meters requested by existing customers (optants)	Totex	£m	3					0.248	0.248							4L.41
New meters introduced by companies for existing customers	Capex	£m	3	0	0	0	0	0.097	0.097							4L.42
New meters introduced by companies for existing customers	Opex	£m	3	0	0	0	0	0	0.000							4L.43
New meters introduced by companies for existing customers	Totex	£m	3					0.097	0.097							4L.44
New meters for existing customers - business	Capex	£m	3	0	0	0	0	0.006	0.006							4L.45
New meters for existing customers - business	Opex	£m	3	0	0	0	0	0	0.000							4L.46
New meters for existing customers - business	Totex	£m	3					0.006	0.006							4L.47
Total metering expenditure	Totex	£m	3					0.351	0.351							4L.48
Other enhancement																
Improvements to taste, odour and colour	Capex	£m	3	0	0	0	0	0	0.000							4L.49
Improvements to taste, odour and colour	Opex	£m	3	0	0	0	0	0	0.000							4L.50
Improvements to taste, odour and colour	Totex	£m	3	0.000	0.000	0.000	0.000	0.000	0.000							4L.51
Meeting lead standards	Capex	£m	3	0	0	0	0	0.076	0.076							4L.52
Meeting lead standards	Opex	£m	3	0	0	0	0	0	0.000							4L.53
Meeting lead standards	Totex	£m	3	0.000	0.000	0.000	0.000	0.076	0.076							4L.54

Pro forma 4L
Southern Water

Enhancement expenditure for the 12 months ended 31st March 2021 - water resources and water network+

Line description	Units	DPs	Expenditure in report year						Cumulative expenditure on schemes completed in the report year					RAG 4 reference	
			Water resources	Water network+			Total	Water resources	Water network+			Total			
				Raw water transport	Raw water storage	Water treatment			Treated water distribution	Raw water transport	Raw water storage		Water treatment		Treated water distribution
Addressing raw water deterioration	Capex	£m	3	0.002	0	0	3.438	0.081	3.521						4L55
Addressing raw water deterioration	Opex	£m	3	0	0	0	0	0	0.000						4L56
Addressing raw water deterioration	Totex	£m	3	0.002	0.000	0.000	3.438	0.081	3.521						4L57
Improvements to river flow	Capex	£m	3	0	0	0	0	0	0.000						4L58
Improvements to river flow	Opex	£m	3	0	0	0	0	0	0.000						4L59
Improvements to river flow	Totex	£m	3	0.000	0.000	0.000	0.000	0.000	0.000						4L60
Enhancing resilience to low probability high consequence events	Capex	£m	3	0	0	0	0	0	0.000						4L61
Enhancing resilience to low probability high consequence events	Opex	£m	3	0	0	0	0	0	0.000						4L62
Enhancing resilience to low probability high consequence events	Totex	£m	3	0.000	0.000	0.000	0.000	0.000	0.000						4L63
Security - SEMD	Capex	£m	3	0	0	0	0	0	0.000						4L64
Security - SEMD	Opex	£m	3	0	0	0	0	0	0.000						4L65
Security - SEMD	Totex	£m	3	0.000	0.000	0.000	0.000	0.000	0.000						4L66
Security - Non-SEMD	Capex	£m	3	0	0	0	0	0	0.000						4L67
Security - Non-SEMD	Opex	£m	3	0	0	0	0	0	0.000						4L68
Security - Non-SEMD	Totex	£m	3	0.000	0.000	0.000	0.000	0.000	0.000						4L69
Total other enhancement expenditure	Totex	£m	3	0.002	0.000	0.000	3.438	0.157	3.597						4L80
Total enhancement															
Total enhancement expenditure	Capex	£m	3	26.811	1.196	0.000	9.927	1.141	39.075						4L81
Total enhancement expenditure	Opex	£m	3	0.008	0.000	0.000	1.642	0.071	1.721						4L82
Total enhancement expenditure	Totex	£m	3	26.819	1.196	0.000	11.569	1.212	40.796						4L83

Pro forma 4M
Southern Water

Enhancement expenditure for the 12 months ended 31st March 2021 - wastewater network+ and bioresources

Line description	Units	DPs	Expenditure in report year									Cumulative expenditure on schemes completed in the report year									RAG 4 reference		
			Wastewater network+					Bioresources				Total	Wastewater network+					Bioresources				Total	
			Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	Foul		Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal				
EA/NRW environmental programme (WINEP/NEP)																							
Conservation drivers	Capex	Em	3	0.399	0	0	0.224	0	0	0	0	0.623								4M.1			
Conservation drivers	Opex	Em	3	0	0	0	0	0	0	0	0	0.000								4M.2			
Conservation drivers	Totex	Em	3	0.399	0.000	0.000	0.224	0.000	0.000	0.000	0.000	0.623								4M.3			
Event Duration Monitoring at intermittent discharges	Capex	Em	3	0.031	0	0	2.779	0	0	0	0	2.810								4M.4			
Event Duration Monitoring at intermittent discharges	Opex	Em	3	0	0	0	0	0	0	0	0	0.000								4M.5			
Event Duration Monitoring at intermittent discharges	Totex	Em	3	0.031	0.000	0.000	2.779	0.000	0.000	0.000	0.000	2.810								4M.6			
Flow monitoring at sewage treatment works	Capex	Em	3	0	0	0	0.044	0	0	0	0	0.044								4M.7			
Flow monitoring at sewage treatment works	Opex	Em	3	0	0	0	0	0	0	0	0	0.000								4M.8			
Flow monitoring at sewage treatment works	Totex	Em	3	0.000	0.000	0.000	0.044	0.000	0.000	0.000	0.000	0.044								4M.9			
Schemes to increase flow to full treatment	Capex	Em	3	0	0	0	3.065	0	0	0	0	3.065	0	0	0	0	0	0	0	0.000	4M.10		
Schemes to increase flow to full treatment	Opex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0.000	4M.11		
Schemes to increase flow to full treatment	Totex	Em	3	0.000	0.000	0.000	3.065	0.000	0.000	0.000	0.000	3.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4M.12		
Schemes to increase storm tank capacity	Capex	Em	3	0	0	0	0.415	0	0	0	0	0.415	0	0	0	0	0	0	0	0.000	4M.13		
Schemes to increase storm tank capacity	Opex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0.000	4M.14		
Schemes to increase storm tank capacity	Totex	Em	3	0.000	0.000	0.000	0.415	0.000	0.000	0.000	0.000	0.415	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4M.15		
Storage schemes to reduce spill frequency at CSOs, storm tanks, etc	Capex	Em	3	0.11	0	0	0	0	0	0	0	0.110	0	0	0	0	0	0	0	0.000	4M.16		
Storage schemes to reduce spill frequency at CSOs, storm tanks, etc	Opex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0.000	4M.17		
Storage schemes to reduce spill frequency at CSOs, storm tanks, etc	Totex	Em	3	0.110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4M.18		
Chemical removals schemes	Capex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0.000	4M.19		
Chemical removals schemes	Opex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0.000	4M.20		
Chemical removals schemes	Totex	Em	3	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	4M.21		
Chemicals monitoring/ investigations/ options appraisals	Capex	Em	3	0	0	0	0.892	0	0	0	0	0.892								4M.22			
Chemicals monitoring/ investigations/ options appraisals	Opex	Em	3	0	0	0	0	0	0	0	0	0.000								4M.23			
Chemicals monitoring/ investigations/ options appraisals	Totex	Em	3	0.000	0.000	0.000	0.892	0.000	0.000	0.000	0.000	0.892								4M.24			
Nitrogen removal	Capex	Em	3	0	0	0	0.829	0	0	0	0	0.829								4M.25			
Nitrogen removal	Opex	Em	3	0	0	0	0	0	0	0	0	0.000								4M.26			
Nitrogen removal	Totex	Em	3	0.000	0.000	0.000	0.829	0.000	0.000	0.000	0.000	0.829								4M.27			
Phosphorus removal	Capex	Em	3	0	0	0	26.102	0	0	0	0	26.102	0	0	0	4.613	0	0	0	4.613	4M.28		
Phosphorus removal	Opex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0.000	4M.29		
Phosphorus removal	Totex	Em	3	0.000	0.000	0.000	26.102	0.000	0.000	0.000	0.000	26.102	0.000	0.000	0.000	4.613	0.000	0.000	0.000	4.613	4M.30		
Reduction of sanitary parameters	Capex	Em	3	0	0	0	0.343	0	0	0	0	0.343	0	0	0	0.101	0	0	0	0.101	4M.31		

Pro forma 4M
Southern Water

Enhancement expenditure for the 12 months ended 31st March 2021 - wastewater network+ and bioresources

Line description	Units	DPs	Expenditure in report year										Cumulative expenditure on schemes completed in the report year										RAG 4 reference		
			Wastewater network+					Bioresources					Total	Wastewater network+					Bioresources					Total	
			Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	Foul	Surface water drainage		Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal						
Reduction of sanitary parameters	Opex	£m	3	0	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0	0.000	4M.32
Reduction of sanitary parameters	Totex	£m	3	0.000	0.000	0.000	0.343	0.000	0.000	0.000	0.000	0.000	0.343	0.000	0.000	0.000	0.101	0.000	0.000	0.000	0.000	0.000	0.000	0.101	4M.33
UV disinfection (or similar)	Capex	£m	3	0	0	0	0.513	0	0	0	0	0.513	0	0	0	0	0	0	0	0	0	0	0	0.000	4M.34
UV disinfection (or similar)	Opex	£m	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0	0	0.000	4M.35
UV disinfection (or similar)	Totex	£m	3	0.000	0.000	0.000	0.513	0.000	0.000	0.000	0.000	0.513	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4M.36
Investigations	Capex	£m	3	0.483	0	0	0.001	0	0	0	0	0.484													4M.37
Investigations	Opex	£m	3	0	0	0	0	0	0	0	0	0.000													4M.38
Investigations	Totex	£m	3	0.483	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.484													4M.39
Total environmental programme expenditure	Totex	£m	3	1.023	0.000	0.000	35.207	0.000	0.000	0.000	0.000	36.230													4M.40

Pro forma 4M
Southern Water

Enhancement expenditure for the 12 months ended 31st March 2021 - wastewater network+ and bioresources

Line description	Units	DPs	Expenditure in report year										Cumulative expenditure on schemes completed in the report year										RAG 4 reference		
			Wastewater network+					Bioresources					Total	Wastewater network+					Bioresources					Total	
			Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	Foul	Surface water drainage		Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal						
Other enhancement																									
Growth at sewage treatment works (excluding sludge treatment)	Capex	Em	3	0	0	0	3.525	0	0	0	0	3.525	0	0	0	3.864	0	0	0	0	0	3.864	4M.41		
Growth at sewage treatment works (excluding sludge treatment)	Opex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0.000	4M.42		
Growth at sewage treatment works (excluding sludge treatment)	Totex	Em	3	0.000	0.000	0.000	3.525	0.000	0.000	0.000	0.000	3.525	0.000	0.000	0.000	3.864	0.000	0.000	0.000	0.000	0.000	3.864	4M.43		
Reduce flooding risk for properties	Capex	Em	3	1.076	0	0	-0.001	0	0	0	0	1.075	0.027	0	0	-0.001	0	0	0	0	0	0.026	4M.44		
Reduce flooding risk for properties	Opex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0.000	4M.45		
Reduce flooding risk for properties	Totex	Em	3	1.076	0.000	0.000	-0.001	0.000	0.000	0.000	0.000	1.075	0.027	0.000	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.026	4M.46		
First time sewerage	Capex	Em	3	0.179	0	0	0.343	0	0	0	0	0.522	0.105	0	0	0.205	0	0	0	0	0	0.310	4M.47		
First time sewerage	Opex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0.000	4M.48		
First time sewerage	Totex	Em	3	0.179	0.000	0.000	0.343	0.000	0.000	0.000	0.000	0.522	0.105	0.000	0.000	0.205	0.000	0.000	0.000	0.000	0.000	0.310	4M.49		
Sludge enhancement (quality)	Capex	Em	3	0	0	0	0	0	0	0	0	0.000											4M.50		
Sludge enhancement (quality)	Opex	Em	3	0	0	0	0	0	0	0	0	0.000											4M.51		
Sludge enhancement (quality)	Totex	Em	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000											4M.52		
Sludge enhancement (growth)	Capex	Em	3	0	0	0	0	0	0	2.773	0	2.773											4M.53		
Sludge enhancement (growth)	Opex	Em	3	0	0	0	0	0	0	0	0	0.000											4M.54		
Sludge enhancement (growth)	Totex	Em	3	0.000	0.000	0.000	0.000	0.000	0.000	2.773	0.000	2.773											4M.55		
Odour	Capex	Em	3	0	0	0	0	0	0	0	0	0.000											4M.56		
Odour	Opex	Em	3	0	0	0	0	0	0	0	0	0.000											4M.57		
Odour	Totex	Em	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000											4M.58		
Enhancing resilience to low probability high consequence events	Capex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0.000	4M.59		
Enhancing resilience to low probability high consequence events	Opex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0.000	4M.60		
Enhancing resilience to low probability high consequence events	Totex	Em	3	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	0.000	4M.61		
Security - SEMD	Capex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0.000	4M.62		
Security - SEMD	Opex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0.000	4M.63		
Security - SEMD	Totex	Em	3	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	0.000	4M.64		
Security - Non-SEMD	Capex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0.000	4M.65		
Security - Non-SEMD	Opex	Em	3	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	0	0	0.000	4M.66		
Security - Non-SEMD	Totex	Em	3	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	0.000	4M.67		
WFD Manage uncertainty Special case	Capex	Em	3	0.046	0	0	14.927	0	0	0	0	14.973											4M.68		
WFD Manage uncertainty Special case	Opex	Em	3	0	0	0	0	0	0	0	0	0.000											4M.69		
AMP 6 Bathing Water enhancement	Capex	Em	3	0.195	0	0	0	0	0	0	0	0.195											4M.70		
AMP 6 Bathing Water enhancement	Opex	Em	3	0	0	0	0	0	0	0	0	0.000											4M.71		
AMP7 WINEP3 Chemicals NDLS Permits	Capex	Em	3	0	0	0	0	0	0	0	0	0.000											4M.72		

Pro forma 4M
Southern Water

Enhancement expenditure for the 12 months ended 31st March 2021 - wastewater network+ and bioresources

Line description	Units	DPs	Expenditure in report year										Cumulative expenditure on schemes completed in the report year										RAG 4 reference			
			Wastewater network+					Bioresources					Total	Wastewater network+					Bioresources					Total		
			Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal	Foul	Surface water drainage		Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge transport	Sludge treatment	Sludge disposal							
AMP7 WINEP3 Chemicals NDLS Permits	Opex	£m	3	0	0	0	0	0	0	0	0	0	0.000												4M.73	
NEP - Groundwater schemes	Capex	£m	3	5.433	0	0	0	0	0	0	0	0	5.433													4M.74
NEP - Groundwater schemes	Opex	£m	3	0	0	0	0	0	0	0	0	0	0.000													4M.75
NEP - Flow 1 schemes	Capex	£m	3	0	0	0	0.235	0	0	0	0	0	0.235													4M.76
NEP - Flow 1 schemes	Opex	£m	3	0	0	0	0	0	0	0	0	0	0.000													4M.77
Total other enhancement expenditure	Totex	£m	3	6.929	0.000	0.000	19.029	0.000	0.000	2.773	0.000	0.000	28.731													4M.78
Total enhancement																										
Total enhancement expenditure	Capex	£m	3	7.952	0.000	0.000	54.236	0.000	0.000	2.773	0.000	0.000	64.961													4M.79
Total enhancement expenditure	Opex	£m	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000													4M.80
Total enhancement expenditure	Totex	£m	3	7.952	0.000	0.000	54.236	0.000	0.000	2.773	0.000	0.000	64.961													4M.81

Pro forma 4N
Southern Water

Developer services expenditure for the 12 months ended 31st March 2021 - water resources and water network+

Line description	Units	DPs	Expenditure in report year						RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)	
			Water resources	Water network+				Total			
				Raw water transport	Raw water storage	Water treatment	Treated water distribution				
New connections	Capex	£m	3	0	0	0	0	3.661	3.661	4N.1	
New connections	Opex	£m	3	0	0	0	0	0.577	0.577	4N.2	
Requisition mains	Capex	£m	3	0	0	0	0	6.091	6.091	4N.3	
Requisition mains	Opex	£m	3	0	0	0	0	0.139	0.139	4N.4	
Infrastructure network reinforcement	Capex	£m	3	0	0	0	0	0.335	0.335	4N.5	
Infrastructure network reinforcement	Opex	£m	3	0	0	0	0	0	0.000	4N.6	
s185 diversions	Capex	£m	3	0	0	0	0	0.338	0.338	4N.7	
s185 diversions	Opex	£m	3	0	0	0	0	0.125	0.125	4N.8	
Other price controlled activities	Capex	£m	3	0	0	0	0	0	0.000	4N.9	
Other price controlled activities	Opex	£m	3	0	0	0	0	0.157	0.157	4N.10	
Total developer services expenditure - capex	Capex	£m	3	0.000	0.000	0.000	0.000	10.425	10.425	4N.11	
Total developer services expenditure - opex	Opex	£m	3	0.000	0.000	0.000	0.000	0.998	0.998	4N.12	
Total developer services expenditure	Totex	£m	3	0.000	0.000	0.000	0.000	11.423	11.423	4N.13	

Pro forma 40
Southern Water

Developer services expenditure for the 12 months ended 31st March 2021 - wastewater network+ and bioresources

Line description	Units	DPs	Expenditure in report year									RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)		
			Wastewater network+					Bioresources			Total				
			Foul	Surface water drainage	Highway drainage	Sewage treatment and disposal	Sludge liquor treatment	Sludge Transport	Sludge Treatment	Sludge Disposal					
New connections and requisition sewers	Capex	£m	3	3.773	0.822	0.822	0	0	0	0	0	0	5.417	40.1	1
New connections and requisition sewers	Opex	£m	3	0	0	0	0	0	0	0	0	0	0.000	40.2	
Infrastructure network reinforcement	Capex	£m	3	7.582	1.653	1.653	0	0	0	0	0	0	10.888	40.3	
Infrastructure network reinforcement	Opex	£m	3	0	0	0	0	0	0	0	0	0	0.000	40.4	
s185 diversions	Capex	£m	3	0.47	0.102	0.102	0	0	0	0	0	0	0.674	40.5	
s185 diversions	Opex	£m	3	0.023	0.004	0.004	0	0	0	0	0	0	0.031	40.6	
Other price controlled activities	Capex	£m	3	0	0	0	0.665	0	0	0	0	0	0.665	40.7	
Other price controlled activities	Opex	£m	3	0.892	0.195	0.195	0	0	0	0	0	0	1.282	40.8	
Total developer services expenditure	Capex	£m	3	11.825	2.577	2.577	0.665	0.000	0.000	0.000	0.000	0.000	17.644	40.9	
Total developer services expenditure	Opex	£m	3	0.915	0.199	0.199	0.000	0.000	0.000	0.000	0.000	0.000	1.313	40.10	
Total developer services expenditure	Totex	£m	3	12.740	2.776	2.776	0.665	0.000	0.000	0.000	0.000	0.000	18.957	40.11	

Pro forma 4P
Southern Water

Expenditure on non-price control diversions for the 12 months ended 31 March 2021

Line description	Units	DPs	Water resources	Water network+	Wastewater network+	Bioresources	Total	RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)
Non-price control diversions									
Diversions - NRSWA	£m	3	0	0.333	0.019	0	0.352	4P.1	
Diversions - other non-price control	£m	3	0	0	0	0	0.000	4P.2	
Total expenditure on non-price control diversions	£m	3	0.000	0.333	0.019	0.000	0.352	4P.3	

Pro forma 4Q
Southern Water

Developer services - New connections, properties and mains

Line description	Units	DPs	Water	Wastewater	Total	RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)
Connections volume data							
New connections (residential – excluding NAVs)	nr	0	3154	8144	11298	4Q.1	*
New connections (business – excluding NAVs)	nr	0	251	394	645	4Q.2	*
Total new connections served by incumbent	nr	0	3405	8538	11943	4Q.3	*
New connections – SLPs	nr	0	948			4Q.4	*
Properties volume data							
New properties (residential - excluding NAVs)	nr	0	5007	8140	13147	4Q.5	*
New properties (business - excluding NAVs)	nr	0	315	392	707	4Q.6	*
Total new properties served by incumbent	nr	0	5322	8532	13854	4Q.7	*
New residential properties served by NAVs	nr	0	4129	6699	10828	4Q.8	*
New business properties served by NAVs	nr	0	2	20	22	4Q.9	*
Total new properties served by NAVs	nr	0	4131	6719	10850	4Q.10	*
Total new properties	nr	0	9453	15251	24704	4Q.11	*
New properties – SLP connections	nr	0	957			4Q.12	*
New water mains data							
Length of new mains (km) - requisitions	nr	0	14			4Q.13	
Length of new mains (km) - SLPs	nr	0	3			4Q.14	

Pro forma 4R
Southern Water

Connected properties, customers and population

Line description	Units	Dps	Unmeasured	Measured	Total	Voids
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RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)
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Customer numbers - average during the year

Residential water only customers	000s	3	15.639	74.506	90.145	4.739
Residential wastewater only customers	000s	3	261.84	649.3	911.140	30.415
Residential water and wastewater customers	000s	3	112.207	833.375	945.582	34.884
Total residential customers	000s	3	389.686	1557.181	1946.867	70.038
Business water only customers	000s	3	0.564	9.844	10.408	1.616
Business wastewater only customers	000s	3	2.858	31.492	34.350	8.021
Business water & wastewater customers	000s	3	3.145	35.499	38.644	6.645
Total business customers	000s	3	6.567	76.835	83.402	16.282
Total customers	000s	3	396.253	1634.016	2030.269	86.320

4R.1	
4R.2	
4R.3	
4R.4	
4R.5	
4R.6	
4R.7	
4R.8	
4R.9	

Line description	Units	Dps	Water			Wastewater		
			Unmeasured	Measured	Total	Unmeasured	Measured	Total

Property numbers - average during the year

Residential properties billed	000s	3	127.846	907.881	1035.727	374.046	1482.675	1856.721
Residential void properties	000s	3			39.623			65.299
Total connected residential properties	000s	3			1075.350			1922.020
Business properties billed	000s	3	4.509	52.803	57.312	7.636	80.023	87.659
Business void properties	000s	3			0			0
Total connected business properties	000s	3			57.312			87.659
Total connected properties	000s	3			1132.662			2009.679

4R.10	*
4R.11	*
4R.12	*
4R.13	
4R.14	*
4R.15	*
4R.16	*

Line description	Units	Dps	Water								Total
			Unmeasured				Measured				
			No meter	Basic meter	Smart meter	Total	No meter	Basic meter	Smart meter	Total	

Property and meter numbers - at end of year

Total new residential properties connected in year	000s	3	0.721	0	0	0.721	0	0	6.616	6.616	7.337
Total new business properties connected in year	000s	3	0.007	0	0	0.007	0	0	0.444	0.444	0.451
Residential properties billed at year end	000s	3	129.127	0	0	129.127	0	340.76	571.378	912.138	1041.265
Residential void properties at year end	000s	3				11.375				26.237	37.612
Total connected residential properties at year end	000s	3				140.502				938.375	1078.877
Business properties billed at year end	000s	3	0	0	0	0.000	0	0	0	0.000	0.000
Business void properties at year end	000s	3				4.42				51.524	55.944
Total connected business properties at year end	000s	3				4.420				51.524	55.944
Total connected properties at year end	000s	3				144.922				989.899	1134.821

4R.17	*
4R.18	*
4R.19	*
4R.20	*
4R.21	*
4R.22	*
4R.23	
4R.24	*
4R.25	*

Line description	Units	Dps	Water	Wastewater
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Population data

Resident population	000s	3	2545.27	4690.059
Business population	000s	3		62.536

4R.26	*
4R.27	*

Pro forma 5A

Southern Water

Water resources asset and volumes data for the 12 months ended 31st March 2021

Line description	Units	DPs	Input	RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)
Water resources					
Water from impounding reservoirs	MI/d	2	34.1	5A.1	*
Water from pumped storage reservoirs	MI/d	2	25.21	5A.2	*
Water from river abstractions	MI/d	2	209.03	5A.3	*
Water from groundwater works,excluding managed aquifer recharge (MAR) water supply schemes	MI/d	2	396.47	5A.4	*
Water from artificial recharge (AR) water supply schemes	MI/d	2	0	5A.5	*
Water from aquifer storage and recovery (ASR) water supply schemes	MI/d	2	0	5A.6	*
Water from saline abstractions	MI/d	2	0	5A.7	*
Water from water reuse schemes	MI/d	2	0	5A.8	*
Number of impounding reservoirs	nr	0	3	5A.9	
Number of pumped storage reservoirs	nr	0	1	5A.10	
Number of river abstractions	nr	0	11	5A.11	*
Number of groundwater works excluding managed aquifer recharge (MAR) water supply schemes	nr	0	96	5A.12	*
Number of artificial recharge (AR) water supply schemes	nr	0	0	5A.13	*
Number of aquifer storage and recovery (ASR) water supply schemes	nr	0	0	5A.14	*
Number of saline abstraction schemes	nr	0	0	5A.15	*
Number of reuse schemes	nr	0	0	5A.16	*
Total number of sources	nr	0	111	5A.17	*
Total number of water reservoirs	nr	0	4	5A.18	
Total volumetric capacity of water reservoirs	MI	0	42790	5A.19	
Total number of intake and source pumping stations	nr	0	190	5A.20	
Total installed power capacity of intake and source pumping stations	kW	0	27979	5A.21	
Total length of raw water abstraction mains and other conveyors	km	2	67.51	5A.22	
Average pumping head – raw water abstraction	m.hd	2	27.54	5A.23	*
Energy consumption - raw water abstraction	MWh	3	37976.515	5A.24	
Total number of raw water abstraction imports	nr	0	0	5A.25	*
Water imported from 3rd parties' raw water abstraction systems	MI/d	2	0	5A.26	*
Total number of raw water abstraction exports	nr	0	2	5A.27	*
Water exported to 3rd parties' from raw water abstraction systems	MI/d	2	13.27	5A.28	*
Water resources capacity (measured using water resources yield)	MI/d	2	719.56	5A.29	*

Pro forma 5B
Southern Water

Water resources operating cost analysis for the 12 months ended 31st March 2021

Line description	Units	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	RAG 4 reference
Opex analysis											
Power	£m	3	0.428	0.005	0.56	3.04	0	0	0	4.033	5B.1
Income treated as negative expenditure	£m	3	0	0	0	0	0	0	0	0.000	5B.2
Abstraction charges / discharge consents	£m	3	0.045	0.121	0.862	2.863	0	0	0	3.891	5B.3
Bulk supply	£m	3	0	0	0	0	0	0	0	0.000	5B.4
Other operating expenditure											
Renewals expensed in year (Infrastructure)	£m	3	0	0	0	0	0	0	0	0.000	5B.5
Renewals expensed in year (Non-Infrastructure)	£m	3	0	0	0	0	0	0	0	0.000	5B.6
Other operating expenditure excluding renewals - direct	£m	3	0.296	0.009	0.472	0.94	0	0	0	1.717	5B.7
Other operating expenditure excluding renewals - indirect	£m	3	0.16	0.028	0.393	1.421	0	0	0	2.002	5B.8
Local authority and Cumulo rates	£m	3	0.064	0.011	0.158	0.569	0	0	0	0.802	5B.9
Total operating expenditure (excluding 3rd party)	£m	3	0.993	0.174	2.445	8.833	0.000	0.000	0.000	12.445	5B.10

Pro forma 6A
Southern Water

Raw water transport, raw water storage and water treatment data for the 12 months ended 31st March 2021

Line description	Units	DPs	Input	RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)
Raw water transport and storage					
Total number of balancing reservoirs	nr	0	4	6A.1	*
Total volumetric capacity of balancing reservoirs	MI	0	896	6A.2	*
Total number of raw water transport stations	nr	0	2	6A.3	
Total installed power capacity of raw water transport pumping stations	kW	0	951	6A.4	
Total length of raw water transport mains and other conveyors	km	2	65.86	6A.5	
Average pumping head - raw water transport	m.hd	2	39.82	6A.6	*
Energy consumption - raw water transport	MWh	3	2168.316	6A.7	
Total number of raw water transport imports	nr	0	0	6A.8	*
Water imported from 3rd parties' raw water transport systems	MI/d	2	0	6A.9	*
Total number of raw water transport exports	nr	0	0	6A.10	*
Water exported to 3rd parties' raw water transport systems	MI/d	2	0	6A.11	*
Total length of raw and pre-treated (non-potable) water transport mains for supplying customers	km	2	18.58	6A.12	

Water treatment - treatment type analysis	Surface water		Ground water		RAG 4 reference	Comments
	Water treated	Number of works	Water treated	Number of works		
Units	MI/d	nr	MI/d	nr		
DPs	2	0	2	0		
All SD simple disinfection works	0	0	37.7	12	6A.13	*
W1 works	0	0	0	0	6A.14	*
W2 works	0	0	48.11	10	6A.15	*
W3 works	24.62	1	14.7	3	6A.16	*
W4 works	0	1	185.86	32	6A.17	*
W5 works	176.01	6	92.88	16	6A.18	*
W6 works	0	0	0	0	6A.19	*

Water treatment - works size	% of total	Number of works	RAG 4 reference	Comments
Units	DI	nr		
DPs	1	0		
WTWs in size band 1	1.3	14	6A.20	*
WTWs in size band 2	5.5	15	6A.21	*
WTWs in size band 3	14.6	21	6A.22	*
WTWs in size band 4	18.7	16	6A.23	*
WTWs in size band 5	25.9	10	6A.24	*
WTWs in size band 6	16.1	3	6A.25	*
WTWs in size band 7	17.8	2	6A.26	*
WTWs in size band 8	0	0	6A.27	*

Water treatment - other information	Units	DPs	Input
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Pro forma 6A

Southern Water

Raw water transport, raw water storage and water treatment data for the 12 months ended 31st March 2021

Line description	Units	DPs	Input	RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)
Total water treated at more than one type of works	MI/d	2	0	6A.28	*
Number of treatment works requiring remedial action because of raw water deterioration	nr	0	0	6A.29	
Zonal population receiving water treated with orthophosphate	000's	3	2462.895	6A.30	*
Average pumping head – water treatment	m.hd	2	32.65	6A.31	*
Energy consumption - water treatment	MWh	3	35692.944	6A.32	
Total number of water treatment imports	nr	0	1	6A.33	*
Water imported from 3rd parties' water treatment works	MI/d	2	5.03	6A.34	*
Total number of water treatment exports	nr	0	1	6A.35	*
Water exported to 3rd parties' water treatment works	MI/d	2	16.49	6A.36	*

Pro forma 6B

Southern Water

Treated water distribution - assets and operations for the 12 months ended 31st March 2021

Line description	Units	DPs	Input	RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)
Assets and operations					
Total installed power capacity of potable water pumping stations	kW	0	27815	6B.1	
Total volumetric capacity of service reservoirs	MI	1	1111.7	6B.2	
Total volumetric capacity of water towers	MI	1	5.5	6B.3	
Distribution input	MI/d	2	562.7	6B.4	*
Water delivered (non-potable)	MI/d	2	4.5	6B.5	*
Water delivered (potable)	MI/d	2	47546	6B.6	
Water delivered (billed measured residential)	MI/d	2	305.54	6B.7	*
Water delivered (billed measured business)	MI/d	2	94.66	6B.8	*
Total annual leakage	MI/d	2	98.42	6B.9	*
Distribution losses	MI/d	2	80.05	6B.10	*
Water taken unbilled	MI/d	2	13.79	6B.11	*
Proportion of distribution input derived from impounding reservoirs	Propn 0 to 1	3	0.019	6B.12	*
Proportion of distribution input derived from pumped storage reservoirs	Propn 0 to 1	3	0.025	6B.13	*
Proportion of distribution input derived from river abstractions	Propn 0 to 1	3	0.282	6B.14	*
Proportion of distribution input derived from groundwater works, excluding managed aquifer recharge (MAR) water supply schemes	Propn 0 to 1	3	0.674	6B.15	*
Proportion of distribution input derived from artificial recharge (AR) water supply schemes	Propn 0 to 1	3	0	6B.16	*
Proportion of distribution input derived from aquifer storage and recovery (ASR) water supply schemes	Propn 0 to 1	3	0	6B.17	*
Proportion of distribution input derived from saline abstractions	Propn 0 to 1	3	0	6B.18	*
Proportion of distribution input derived from water reuse schemes	Propn 0 to 1	3	0	6B.19	*
Total number of potable water pumping stations that pump into and within the treated water distribution system	nr	0	255	6B.20	
Number of potable water pumping stations delivering treated groundwater into the treated water distribution system	nr	0	70	6B.21	
Number of potable water pumping stations delivering surface water into the treated water distribution system	nr	0	7	6B.22	
Number of potable water pumping stations that re-pump water already within the treated water distribution system	nr	0	178	6B.23	
Number of potable water pumping stations that pump water imported from a 3rd party supply into the treated water distribution system	nr	0	0	6B.24	
Total number of service reservoirs	nr	0	205	6B.25	
Number of water towers	nr	0	8	6B.26	
Energy consumption - treated water distribution	MWh	3	76929.273	6B.27	
Average pumping head - treated water distribution	m.hd	2	70.93	6B.28	*
Total number of treated water distribution imports	nr	0	4	6B.29	*
Water imported from 3rd parties' treated water distribution systems	MI/d	2	2.7	6B.30	*
Total number of treated water distribution exports	nr	0	8	6B.31	*
Water exported to 3rd parties' treated water distribution systems	MI/d	2	16.48	6B.32	*

Pro forma 6C

Southern Water

Water network+ - Mains, communication pipes and other data for the 12 months

Line description	Units	DPs	Input	RAG 4 reference
Treated water distribution - mains analysis				
Total length of potable mains as at 31 March	km	1	13972.5	6C.1
Total length of potable mains relined	km	1	0	6C.2
Total length of potable mains renewed	km	1	7.3	6C.3
Total length of new potable mains	km	1	16.6	6C.4
Total length of potable water mains (•320mm)	km	1	12530.9	6C.5
Total length of potable water mains >320mm and • 450mm	km	1	537	6C.6
Total length of potable water mains >450mm and •610mm	km	1	530.6	6C.7
Total length of potable water mains > 610mm	km	1	140.8	6C.8
Communication pipes				
Number of lead communication pipes	nr	0	133315	6C.9
Number of galvanised iron communication pipes	nr	0	122063	6C.10
Number of other communication pipes	nr	0	758060	6C.11
Treated water distribution - mains age profile				
Total length of potable mains laid or structurally refurbished pre-1880	km	1	1785.2	6C.12
Total length of potable mains laid or structurally refurbished between 1881 and 1900	km	1	726	6C.13
Total length of potable mains laid or structurally refurbished between 1901 and 1920	km	1	1450.8	6C.14
Total length of potable mains laid or structurally refurbished between 1921 and 1940	km	1	1414.4	6C.15
Total length of potable mains laid or structurally refurbished between 1941 and 1960	km	1	884.5	6C.16
Total length of potable mains laid or structurally refurbished between 1961 and 1980	km	1	3393.5	6C.17
Total length of potable mains laid or structurally refurbished between 1981 and 2000	km	1	2949.2	6C.18
Total length of potable mains laid or structurally refurbished post 2001	km	0	1369	6C.19
Other				
Company area	km ²	0	10530	6C.20
Number of lead communication pipes replaced for water quality	nr	0	46	6C.21
Supply-side improvements delivering benefits in 2020-25	MI/d	2	0	6C.22
Demand-side improvements delivering benefits in 2020-25 (excluding leakage and metering)	MI/d	2	0.11	6C.23
Leakage improvements delivering benefits in 2020-25	MI/d	2	-4.32	6C.24
Internal interconnectors delivering benefits in 2020-25	MI/d	2	0	6C.25
Event Risk Index	nr	0	2884	6C.26

Pro forma 6D

Southern Water

Demand management - Metering and leakage activities for the 12 months ended 31

Line description	Units	DPs	Basic meter	Smart meter	RAG 4 reference
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Metering activities - Totex expenditure

New optant meter installation	£m	3	0	0.248	6D.1
New selective meter installation	£m	3	0	0.097	6D.2
New business meter installation	£m	3	0	0.006	6D.3
Residential meters renewed	£m	3	0	1.306	6D.4
Business meters renewed	£m	3	0	0.02	6D.5

Metering activities - Explanatory variables

New optant meters installed	000s	3	0	1.05	6D.6
New selective meters installed	000s	3	0	0.415	6D.7
New business meters installed	000s	3	0	0.025	6D.8
Residential meters renewed	000s	3	0	5.534	6D.9
Business meters renewed	000s	3	0	0.084	6D.10
New residential meters installation – supply-demand balance benefit	MI/d	2	0	0.21	6D.11
New business meters installation – supply-demand balance benefit	MI/d	2	0	-0.03	6D.12
Residential meters renewed - supply-demand balance benefit	MI/d	2		0	6D.13
Business meters renewed - supply-demand balance benefit	MI/d	2		0	6D.14
Residential properties - meter penetration	%	1	32.7	54.9	6D.15

Leakage activities - Totex expenditure	Units	DPs	Maintaining leakage	Reducing leakage	Total	RAG 4 reference
Total leakage activity	£m	3	7.041	1.864	8.905	6D.16

Per capita consumption (excluding supply pipe leakage)

Per capita consumption (measured customers)	l/h/d	2	130.41			6D.17
Per capita consumption (unmeasured customers)	l/h/d	2	188.33			6D.18

Pro forma 7A

Southern Water

Wastewater network+ - Functional expenditure for the 12 months

Line description	Units	DPs	£'000	RAG 4 reference
Costs of STWs in size bands 1 to 5				
Direct costs of STWs in size band 1	000s	3	2141.522	7A.1
Direct costs of STWs in size band 2	000s	3	1207.291	7A.2
Direct costs of STWs in size band 3	000s	3	6665.285	7A.3
Direct costs of STWs in size band 4	000s	3	8956.494	7A.4
Direct costs of STWs in size band 5	000s	3	6725.187	7A.5
General & support costs of STWs in size bands 1 to 5	000s	3	7483.12	7A.6
Functional expenditure of STWs in size bands 1 to 5	000s	3	33178.899	7A.7
Costs of large STWs (size band 6)				
Service charges for STWs in size band 6	000s	3	1022.968	7A.8
Estimated terminal pumping costs size band 6 works	000s	3	0	7A.9
Other direct costs of STWs in size band 6	000s	3	34780.069	7A.10
Direct costs of STWs in size band 6	000s	3	35803.037	7A.11
General & support costs of STWs in size band 6	000s	3	11908.211	7A.12
Functional expenditure of STWs in size band 6	000s	3	47711.248	7A.13
Costs of STWs - all sizes				
Total Functional expenditure for Sewage treatment	000s	3	80890.147	7A.14

Pro forma 7B
Southern Water

Wastewater network+ - Large sewage treatment works for the 12 months ended 31 March 2021

Line description	Units	DPs	Large STW1	Large STW2	Large STW3	Large STW4	Large STW5	Large STW6	Large STW7	Large STW8	Large STW9	Large STW10	Large STW11	Large STW12
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Sewage treatment works - Explanatory variables

Works name (existing works)	text	0	ASHFORD	AYLESFORD	BEXHILL AND HASTINGS	BROOMFIELD BANK	BUDDS FARM	CANTERBURY	CHICHESTER	CHICKENHALL EASTLIEGH	EASTBOURNE	FAIRLEE	FAVERSHAM	FORD
Works name (new works)	text	0												
Works name	text	0	ASHFORD	AYLESFORD	BEXHILL AND HASTINGS	BROOMFIELD BANK	BUDDS FARM	CANTERBURY	CHICHESTER	CHICKENHALL EASTLIEGH	EASTBOURNE	FAIRLEE	FAVERSHAM	FORD
Classification of treatment works	text	0												
Population equivalent of total load received	000s	2	116.05	144.62	143	116.76	380.42	75.69	43.79	105.01	119.13	0	27.68	142.28
Suspended solids consent	mg/l	0	17	60	150	150	60	20	45	20	150	0	60	150
BOD ₅ consent	mg/l	0	11	25	25	25	25	15	25	12	25	0	25	25
Ammonia consent	mg/l	0	2					4		2.8		0		
Phosphorus consent	mg/l	0	0.5					2		1		0		
UV consent	mW/s/cm ²	0	0	0	0	0	0	0	32	0	0	0	0	0
Load received by STW	kgBOD ₅ /d	0	6963	8677	8580	7006	22825	4541	2627	6301	7148	0	1661	8537
Flow passed to full treatment	m ³ /d	0	28223	24443	41980	43671	123090	20910	16524	37790	39164	0	7410	39760

Sewage treatment works - Functional expenditure

Service charges	£000s	0	32.145	28.644	23.609	31.948	58.437	17.024	19.788	33.121	37.731	0	9.28	27.189
Estimated terminal pumping expenditure	£000s	0	0	0	0	0	0	0	0	0	0	0	0	0
Other direct expenditure	£000s	0	672.941	222.093	492.428	1717.367	1216.577	213.917	692.563	1094.551	2616.075	0	167.282	733.335
Total direct expenditure	£000s	0	705.086	250.737	516.037	1749.315	1275.014	230.941	712.351	1127.672	2653.806	0	176.562	760.524
General and support expenditure	£000s	0	375.073	199.907	172.786	533.252	796.388	169.755	253.657	369.503	781.428	0	63.516	344.025
Functional expenditure	£000s	0	1080.159	450.644	688.823	2282.567	2071.402	400.696	966.008	1497.175	3435.234	0	240.078	1104.549

Pro forma 7B
Southern Water

Wastewater network+ - Large sewage treatment

Line description	Units	DPs	Large STW13	Large STW14	Large STW15	Large STW16	Large STW17	Large STW18	Large STW19	Large STW20	Large STW21	Large STW22	Large STW23	Large STW24
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Sewage treatment works - Explanatory variables

Works name (existing works)	text	0	FULLERTON	GODDARDS GREEN	GRAVESEND	HAILSHAM SOUTH	HAILSHAM SOUTH NEW WORKS	HAM HILL	HERNE BAY	HORSHAM NEW	MILLBROOK	MORESTEAD	MOTNEY HILL	NEWHAVEN EAST
Works name (new works)	text	0												
Works name	text	0	FULLERTON	GODDARDS GREEN	GRAVESEND	HAILSHAM SOUTH	HAILSHAM SOUTH NEW WORKS	HAM HILL	HERNE BAY	HORSHAM NEW	MILLBROOK	MORESTEAD	MOTNEY HILL	NEWHAVEN EAST
Classification of treatment works	text	0												
Population equivalent of total load received	000s	2	66.12	62.1	64.23	30.01	0	62.71	43.32	71.88	142.02	43.53	273.84	60.83
Suspended solids consent	mg/l	0	20	11		10	0	38	15	12	40	60	60	150
BOD ₅ consent	mg/l	0	10	7	25	7	0	25	10	8	25	25	25	25
Ammonia consent	mg/l	0	3	2.5	60	2	0	25	3	2.5		5	60	
Phosphorus consent	mg/l	0	1	2		1	0		2	1		1		
UV consent	mW/s/cm ²	0	0	0	0	0	0	0	0	0	0	0	0	0
Load received by STW	kgBOD ₅ /d	0	3967	3726	3854	1801	0	3763	2599	4313	8521	2612	16430	3650
Flow passed to full treatment	m ³ /d	0	28090	13758	11832	9489	0	16987	10761	16849	46785	11801	44106	18255

Sewage treatment works - Functional expenditure

Service charges	£000s	0	14.767	17.012	18.064	18.867	0	16.426	17.386	17.138	32.694	19.788	32.091	0
Estimated terminal pumping expenditure	£000s	0	0	0	0	0	0	0	0	0	0	0	0	0
Other direct expenditure	£000s	0	670.153	437.196	511.504	585.17	0	304.791	607.011	782.923	1499.144	419.516	1067.203	355.239
Total direct expenditure	£000s	0	684.92	454.208	529.568	604.037	0	321.217	624.397	800.061	1531.838	439.304	1099.294	355.239
General and support expenditure	£000s	0	199.653	205.255	158.832	178.317	0	187.636	151.613	379.573	407.829	147.135	339.436	110.579
Functional expenditure	£000s	0	884.573	659.463	688.4	782.354	0	508.853	776.01	1179.634	1939.667	586.439	1438.73	465.818

Pro forma 7B
Southern Water

Wastewater network+ - Large sewage treatment

Line description	Units	DPs	Large STW25	Large STW26	Large STW27	Large STW28	Large STW29	Large STW30	Large STW31	Large STW32	Large STW33	Large STW34	Large STW35	Large STW36
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Sewage treatment works - Explanatory variables

Works name (existing works)	text	0	NORTHFLEET	PEEL COMMON	PENNINGTON	PORTSLADE SHOREHAM	PORTSWOOD	QUEENBOROUGH	SANDOWN	SCAYNES HILL	SITTINGBOURNE	SLOWHILL COPSE	SWALECLIFFE	TONBRIDGE
Works name (new works)	text	0												
Works name	text	0	NORTHFLEET	PEEL COMMON	PENNINGTON	PORTSLADE SHOREHAM	PORTSWOOD	QUEENBOROUGH	SANDOWN	SCAYNES HILL	SITTINGBOURNE	SLOWHILL COPSE	SWALECLIFFE	TONBRIDGE
Classification of treatment works	text	0												
Population equivalent of total load received	000s	2	56.57	282.82	55.35	58.38	83.32	40.52	136.26	41.79	75.34	74	37.41	51.83
Suspended solids consent	mg/l	0		30	49	150	80	60	150	25	100	60	150	30
BOD ₅ consent	mg/l	0	25	25	25	25	25	25	25	15	25	25	25	20
Ammonia consent	mg/l	0	50							5				10
Phosphorus consent	mg/l	0								2				2
UV consent	mW/s/cm ²	0	0	22	30	0	0	0	0	0	0	0	24	0
Load received by STW	kgBOD ₅ /d	0	3394	16969	3321	3503	4999	2431	8176	2507	4520	4440	2245	3110
Flow passed to full treatment	m ³ /d	0	10805	79792	28612	11105	27262	12998	46734	11328	15546	21002	9381	13706

Sewage treatment works - Functional expenditure

Service charges	£000s	0	18.615	33.497	20.163	20.163	33.872	14.133	32.251	17.933	18.615	19.788	19.788	19.788
Estimated terminal pumping expenditure	£000s	0	0	0	0	0	0	0	0	0	0	0	0	0
Other direct expenditure	£000s	0	480.062	2172.17	604.754	782.307	837.96	619.736	1779.334	432.4	601.216	849.61	548.265	534.612
Total direct expenditure	£000s	0	498.677	2205.667	624.917	802.47	871.832	633.869	1811.585	450.333	619.831	869.398	568.053	554.4
General and support expenditure	£000s	0	161.198	654.528	194.432	231.729	227.269	118.438	514.222	224.717	148.146	237.246	133.63	190.022
Functional expenditure	£000s	0	659.875	2860.195	819.349	1034.199	1099.101	752.307	2325.807	675.05	767.977	1106.644	701.683	744.422

Pro forma 7B
Southern Water

Wastewater network+ - Large sewage treatment

Line description	Units	DPs	Large STW37	Large STW38	Large STW39	Large STW40	Large STW41	Large STW42	Large STW43	Large STW44	Large STW45	Total STW	RAG 4 reference
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Sewage treatment works - Explanatory variables

Works name (existing works)	text	0	TUNBRIDGE WELLS NORTH	TUNBRIDGE WELLS SOUTH	WEATHERLEES HILL	WHITEWALL CREEK	WEATHERLEES HILL B	WOOLSTON	WORTHING EAST	PEACEHAVEN	PORTOBELLO BRIGHTON		
Works name (new works)	text	0											7B.1
Works name	text	0	TUNBRIDGE WELLS NORTH	TUNBRIDGE WELLS SOUTH	WEATHERLEES HILL	WHITEWALL CREEK	WEATHERLEES HILL B	WOOLSTON	WORTHING EAST	PEACEHAVEN	PORTOBELLO BRIGHTON		
Classification of treatment works	text	0											7B.2
Population equivalent of total load received	000s	2	31.9	30.34	93.03	38.04	94.57	69.23	143.41	302.1	0	4131.23	7B.3
Suspended solids consent	mg/l	0	20	18	35	60	60	60	150	150	0	2735	7B.4
BOD ₅ consent	mg/l	0	8	12	25	25	25	25	25	25	0	885	7B.5
Ammonia consent	mg/l	0	3	4	5	20					0	268.8	7B.6
Phosphorus consent	mg/l	0	2	2							0	19.5	7B.7
UV consent	mW/s/cm ²	0	0	0	0	0	31	0	0	0	0	139	7B.8
Load received by STW	kgBOD ₅ /d	0	1914	1820	5582	2282	5674	4154	8605	18126	0	247874	7B.9
Flow passed to full treatment	m ³ /d	0	9119	10362	19159	7021	21058	16747	47873	76304	0	1147592	7B.10

Sewage treatment works - Functional expenditure

Service charges	£000s	0	18.615	19.788	31.948	18.615	35.421	20.163	31.492	55.171	0	1022.968	7B.11
Estimated terminal pumping expenditure	£000s	0	0	0	0	0	0	0	0	0	0	0	7B.12
Other direct expenditure	£000s	0	527.148	355.633	1213.821	254.145	421.201	1273.939	1300.59	2112.187	0	34780.069	7B.13
Total direct expenditure	£000s	0	545.763	375.421	1245.769	272.76	456.622	1294.102	1332.082	2167.358	0	35803.037	7B.14
General and support expenditure	£000s	0	184.307	120.694	430.207	90.475	115.565	301.141	373.824	731.273	0	11908.211	7B.15
Functional expenditure	£000s	0	730.07	496.115	1675.976	363.235	572.187	1595.243	1705.906	2898.631	0	47711.248	7B.16

Pro forma 7C

Southern Water

Wastewater network+ - Sewer and volume data for the 12 months ended 31st March 2021

Line description	Units	DPs	Input	RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)
Wastewater network					
Connectable properties served by s101A schemes completed in the report year	nr	0	0	7C.1	
Number of s101A schemes completed in the report year	nr	0	0	7C.2	
Total pumping station capacity	kW	0	131991	7C.3	
Number of network pumping stations	nr	0	3444	7C.4	
Total number of sewer blockages	nr	0	22013	7C.5	
Total number of gravity sewer collapses	nr	0	159	7C.6	
Total number of sewer rising main bursts	nr	0	156	7C.7	
Number of combined sewer overflows	nr	0	770	7C.8	
Number of emergency overflows	nr	0	119	7C.9	
Number of settled storm overflows	nr	0	180	7C.10	
Sewer age profile (constructed post 2001)	km	0	1983	7C.11	
Volume of trade effluent	MI/yr	2	4128.02	7C.12	
Volume of wastewater receiving treatment at sewage treatment works	MI/yr	2	514580	7C.13	
Length of gravity sewers rehabilitated	km	0	3	7C.14	
Length of rising mains replaced or structurally refurbished	km	0	0	7C.15	
Length of foul (only) public sewers	km	0	13031	7C.16	
Length of surface water (only) public sewers	km	0	5134	7C.17	
Length of combined public sewers	km	0	2508	7C.18	
Length of rising mains	km	0	1534	7C.19	
Length of other wastewater network pipework	km	0	91	7C.20	
Total length of "legacy" public sewers as at 31 March	km	0	22298	7C.21	
Length of formerly private sewers and lateral drains (s105A sewers)	km	0	17537	7C.22	

Pro forma 7D
Southern Water

Wastewater network+ - Sewage treatment works data for the 12 months ended 31st March 2021

Line description	Units	DPs	Treatment categories							Treatment works consents								
			Primary	Secondary		Tertiary				Total	Phosphorus				BOD ₅			
				Activated Sludge	Biological	A1	A2	B1	B2		<=0.5mg/l	>0.5 to <=1mg/l	>1mg/l	No permit	Total	<=7mg/l	>7 to <=10mg/l	>10 to <=20mg/l

Load received at sewage treatment works

Load received by STWs in size band 1	kg BOD ₅ /day	0	20	168	225	81	36	95	9	634	0	10	35	588	633	0	3	91	177
Load received by STWs in size band 2	kg BOD ₅ /day	0	0	210	124	61	112	136	73	716	57	18	111	531	717	0	39	335	325
Load received by STWs in size band 3	kg BOD ₅ /day	0	0	622	1376	253	886	759	2383	6279	849	1316	492	3542	6199	66	900	3350	1964
Load received by STWs in size band 4	kg BOD ₅ /day	0	0	564	4587	600	1835	2555	10340	20481	724	4844	944	13968	20480	981	4881	7426	7192
Load received by STWs in size band 5	kg BOD ₅ /day	0	0	2701	1349	0	2491	745	17580	24866	1374	4506	12908	6079	24867	1594	6288	7900	9085
Load received by STWs above size band 5	kg BOD ₅ /day	0	0	114540	12621	3762	87876	0	29075	247874	6963	18993	20219	201700	247875	5526	12794	25243	204312
Total load received	kg BOD ₅ /day	0	20	118805	20282	4757	93236	4290	59460	300850	9967	29687	34709	226408	300771	8167	24905	44345	223055
Load received from trade effluent customers at treatment works	kg BOD ₅ /day	0								5670									

Number of sewage treatment works

STWs in size band 1	nr	0	4	30	46	9	4	9	1	103	0	1	4	98	103	0	1	9	22
STWs in size band 2	nr	0	0	10	6	3	5	6	3	33	2	1	5	25	33	0	2	14	16
STWs in size band 3	nr	0	0	8	19	4	12	16	32	91	11	17	9	54	91	1	13	49	28
STWs in size band 4	nr	0	0	3	18	2	6	10	34	73	4	18	4	47	73	3	16	29	25
STWs in size band 5	nr	0	0	3	2	0	3	1	16	25	1	4	13	7	25	2	7	7	9
STWs above size band 5	nr	0	0	16	3	1	15	0	7	42	1	5	7	29	42	2	4	6	30
Total number of works	nr	0	4	70	94	19	45	42	93	367	19	46	42	260	367	8	43	114	130

Population equivalent

Current population equivalent served by STWs	000s	3	4951.637
Current population equivalent served by filter bed or activated sludge STWs with tightened/new P consents	000s	3	0
Current population equivalent served by STWs with tightened/new N consents	000s	3	0
Current population equivalent served by STWs with tightened/new sanitary parameter consents	000s	3	0
Current population equivalent served by STWs with tightened/new UV consents	000s	3	0
Population equivalent treatment capacity enhancement	000s	3	0
Current population equivalent served by STW with tightened / new consents for chemicals	000s	3	0
Cumulative shortfall in FFT addressed by WINEP / NEP schemes to increase STW capacity	l/s	3	0
Additional storm tank capacity provided at STWs	m3	3	0
Additional volume of network storage at CSOs etc to reduce spill frequency	m3	3	0

Pro forma 7D
Southern Water

Wastewater network+ - Sewage treatment works data for

Line description	Units	DPs	Consents								RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)
			Ammonia				Nitrate					
			No permit	Total	<=1mg/l	>1 to <=3mg/l	>3 to <=10mg/l	>10mg/l	No permit	Total		

Load received at sewage treatment works												
Load received by STWs in size band 1	kg BOD ₅ /day	0	361	632	0	0	118	48	467	633	7D.1	
Load received by STWs in size band 2	kg BOD ₅ /day	0	18	717	0	26	220	48	421	715	7D.2	
Load received by STWs in size band 3	kg BOD ₅ /day	0	0	6280	0	923	3360	622	1375	6280	7D.3	
Load received by STWs in size band 4	kg BOD ₅ /day	0	0	20480	0	5057	9670	433	5321	20481	7D.4	
Load received by STWs in size band 5	kg BOD ₅ /day	0	0	24867	0	8943	6820	1511	7592	24866	7D.5	
Load received by STWs above size band 5	kg BOD ₅ /day	0	0	247875	0	31584	20173	29723	166395	247875	7D.6	
Total load received	kg BOD ₅ /day	0	379	300851	0	46533	40361	32385	181571	300850	7D.7	
Load received from trade effluent customers at treatment works	kg BOD ₅ /day	0									7D.8	

Number of sewage treatment works												
STWs in size band 1	nr	0	71	103	0	0	16	4	83	103	7D.9	
STWs in size band 2	nr	0	1	33	0	1	10	2	20	33	7D.10	
STWs in size band 3	nr	0	0	91	0	14	46	11	20	91	7D.11	
STWs in size band 4	nr	0	0	73	0	15	35	3	20	73	7D.12	
STWs in size band 5	nr	0	0	25	0	9	7	2	7	25	7D.13	
STWs above size band 5	nr	0	0	42	0	8	6	5	23	42	7D.14	
Total number of works	nr	0	72	367	0	47	120	27	173	367	7D.15	

Population equivalent				
Current population equivalent served by STWs	000s	3	7D.16	
Current population equivalent served by filter bed or activated sludge STWs with tightened/new P consents	000s	3	7D.17	
Current population equivalent served by STWs with tightened/new N consents	000s	3	7D.18	
Current population equivalent served by STWs with tightened/new sanitary parameter consents	000s	3	7D.19	
Current population equivalent served by STWs with tightened/new UV consents	000s	3	7D.20	
Population equivalent treatment capacity enhancement	000s	3	7D.21	
Current population equivalent served by STW with tightened / new consents for chemicals	000s	3	7D.22	
Cumulative shortfall in FFT addressed by WINEP / NEP schemes to increase STW capacity	l/s	3	7D.23	
Additional storm tank capacity provided at STWs	m3	3	7D.24	
Additional volume of network storage at CSOs etc to reduce spill frequency	m3	3	7D.25	

Pro forma 7E
Southern Water

Wastewater network+ - Energy consumption and other data for the 12 months ended 31st March 2011

Line description	Units	DPs	Input	RAG 4 reference	Comments (For internal use only, not to be reviewed by Ofwat)
Other					
Total sewerage catchment area	km ²	0	1399	7E.1	
Designated coastal bathing waters	nr	0	83	7E.2	
Number of intermittent discharge sites with event duration monitoring	nr	0	0	7E.3	
Number of monitors for flow monitoring at STWs	nr	0	0	7E.4	
Number of odour related complaints	nr	0	1770	7E.5	
Energy consumption					
Energy consumption - sewage collection	MWh	3	108743.155	7E.6	
Energy consumption - sewage treatment	MWh	3	174663.015	7E.7	
Energy consumption - wastewater network +	MWh	3	283406.170	7E.8	

Pro forma 8A

Southern Water

Bioresources sludge data for the 12 months ended 31st March 2021

Line description	Units	DPs	Total	RAG 4 reference	Notes - not for publication
Total sewage sludge produced, treated by incumbents	ttds/year	1	112.3	8A.1	*
Total sewage sludge produced, treated by 3 rd party sludge service provider	ttds/year	1	0	8A.2	*
Total sewage sludge produced	ttds/year	1	112.3	8A.3	*
Total sewage sludge produced from non-appointed liquid waste treatment	ttds/year	1	4.6	8A.4	*
Percentage of sludge produced and treated at a site of STW and STC co-location	%	2	73.15	8A.5	*
Total sewage sludge disposed by incumbents	ttds/year	1	65	8A.6	*
Total sewage sludge disposed by 3 rd party sludge service provider	ttds/year	1	0	8A.7	*
Total sewage sludge disposed	ttds/year	1	65.0	8A.8	*
Total measure of intersiting 'work' done by pipeline	ttds*km/year	0	4	8A.9	*
Total measure of intersiting 'work' done by tanker	ttds*km/year	0	849	8A.10	*
Total measure of intersiting 'work' done by truck	ttds*km/year	0	1138	8A.11	*
Total measure of intersiting 'work' done (all forms of transportation)	ttds*km/year	0	1991	8A.12	*
Total measure of of intersiting 'work' done by tanker (by volume transported)	m ³ *km/y r	0	27899616	8A.13	*
Total measure of 'work' done in sludge disposal operations by pipeline	ttds*km/year	0	0	8A.14	*
Total measure of 'work' done in sludge disposal operations by tanker	ttds*km/year	0	0	8A.15	*
Total measure of 'work' done in sludge disposal operations by truck	ttds*km/year	0	2239	8A.16	*
Total measure of 'work' done in sludge disposal operations (all forms of transportation)	ttds*km/year	0	2239	8A.17	*
Total measure of 'work' done by tanker in sludge disposal operations (by volume transported)	m ³ *km/y r	0	0	8A.18	*
Chemical P sludge as % of sludge produced at STWs	%	2	25.71	8A.19	*

Pro forma 8B
Southern Water

Bioresources operating expenditure analysis for the 12 months ended 31st March 2021

Line description	Units	DPs	Pipeline	Tanker	Truck	Total	RAG 4 reference					
Sludge transport method												
Power	£m	3	0.034	0	0	0.034	8B.1					
Income treated as negative expenditure	£m	3	0	0	0	0.000	8B.2					
Discharge consents	£m	3	0	0	0	0.000	8B.3					
Bulk discharge	£m	3	0	0	0	0.000	8B.4					
Other operating expenditure												
Renewals expensed in year (Infrastructure)	£m	3	0	0	0	0.000	8B.5					
Renewals expensed in year (Non-Infrastructure)	£m	3	0	0	0	0.000	8B.6					
Other operating expenditure excluding renewals - direct	£m	3	0	4.312	0	4.312	8B.7					
Other operating expenditure excluding renewals - indirect	£m	3	0	0.236	0	0.236	8B.8					
Total functional expenditure	£m	3	0.034	4.548	0.000	4.582	8B.9					
Local authority and Cumulo rates	£m	3	0	0	0	0.000	8B.10					
Total operating expenditure (excluding 3rd party)	£m	3	0.034	4.548	0.000	4.582	8B.11					
Sludge treatment type												
Line description	Units	DPs	Untreated Sludge	Raw Sludge liming	Conventional AD	Incineration of raw sludge	Incineration of digested Sludge	Photo-conditioning/composting	Advanced Anaerobic Digestion	Other	Total	RAG 4 reference
Power	£m	3	0	0	-2.472	0	0	0	0	0	-2.472	8B.12
Income treated as negative expenditure	£m	3	0	0	-3.496	0	0	0	0	0	-3.496	8B.13
Discharge consents	£m	3	0	0	0	0	0	0	0	0	0.000	8B.14
Bulk discharge	£m	3	0	0	0	0	0	0	0	0	0.000	8B.15
Other operating expenditure												
Renewals expensed in year (Infrastructure)	£m	3	0	0	0	0	0	0	0	0	0.000	8B.16
Renewals expensed in year (Non-Infrastructure)	£m	3	0	0	0	0	0	0	0	0	0.000	8B.17
Other operating expenditure excluding renewals - direct	£m	3	0	0	12.183	0	0	0	0	0	12.183	8B.18
Other operating expenditure excluding renewals - indirect	£m	3	0	0	2.838	0	0	0	0	0	2.838	8B.19
Total functional expenditure	£m	3	0.000	0.000	9.053	0.000	0.000	0.000	0.000	0.000	9.053	8B.20
Local authority and Cumulo rates	£m	3	0	0	1.738	0	0	0	0	0	1.738	8B.21
Total operating expenditure (excluding 3rd party)	£m	3	0.000	0.000	10.791	0.000	0.000	0.000	0.000	0.000	10.791	8B.22
Sludge disposal route												
Line description	Units	DPs	landfill, raw	landfill, partly treated	land restoration/reclamation	sludge recycled to farmland	Other	Total	RAG 4 reference			
Power	£m	3	0	0	0	0	0	0.000	8B.23			
Income treated as negative expenditure	£m	3	0	0	0	0	0	0.000	8B.24			
Discharge consents	£m	3	0	0	0	0	0	0.000	8B.25			
Bulk discharge	£m	3	0	0	0	0	0	0.000	8B.26			
Other operating expenditure												
Renewals expensed in year (Infrastructure)	£m	3	0	0	0	0	0	0.000	8B.27			
Renewals expensed in year (Non-Infrastructure)	£m	3	0	0	0	0	0	0.000	8B.28			
Other operating expenditure excluding renewals - direct	£m	3	0	0	0	5.438	0	5.438	8B.29			
Other operating expenditure excluding renewals - indirect	£m	3	0	0	0	0.472	0	0.472	8B.30			
Total functional expenditure	£m	3	0.000	0.000	0.000	5.910	0.000	5.910	8B.31			
Local authority and Cumulo rates	£m	3	0	0	0	0	0	0.000	8B.32			
Total operating expenditure (excluding 3rd party)	£m	3	0.000	0.000	0.000	5.910	0.000	5.910	8B.33			

Pro forma 8C
Southern Water

Bioresources energy and liquors analysis for the 12 months ended 31st March 2021

Line description	Units	DPs	Electricity	Heat	Biomethane	Total	Electricity	Heat	Biomethane	Total	RAG 4 reference
			MWh (0 DPs)	MWh (0 DPs)	MWh (0 DPs)	MWh (0 DPs)	Em (3 DPs)	Em (3 DPs)	Em (3 DPs)	Em (3 DPs)	

Energy											
Energy consumption - bioresources	SE Column Headings	SE Column Headings								4.909	8C.1
Energy generated by and used in bioresources control	SE Column Headings	SE Column Headings	21783	73406	0	95189	2.527	1.929	0	4.456	8C.2
Energy generated by bioresources and used in network plus control	SE Column Headings	SE Column Headings	40607	0	0	40607	4.751	0	0	4.751	8C.3
Energy generated by bioresources and exported to the grid or third party	SE Column Headings	SE Column Headings	11266	0	0	11266	0.558	0	0	0.558	8C.4
Energy generated by bioresources that is unused	SE Column Headings	SE Column Headings	0	20952	0	20952					8C.5
Energy bought from grid or third party and used in bioresources control	SE Column Headings	SE Column Headings	16010	211	0	16221	2.249	0.03	0	2.279	8C.6

Income from renewable energy subsidies	Unit	DPs	Value	
Income claimed from Renewable Energy Certificates (ROCs)	£m	3	2938.701	8C.7
Income claimed from Renewable Heat Incentives (RHIs)	£m	3	0	8C.8
Income claimed from [other renewable energy subsidy (1)]	£m	3	0	8C.9
Income claimed from [other renewable energy subsidy (2)]	£m	3	0	8C.10
Income claimed from [other renewable energy subsidy (3)]	£m	3	0	8C.11
Total income claimed from renewable energy subsidies	£m	3	2938.701	8C.12
% of total number of renewable energy subsidies due to expire in the next 2 financial years	%	0	0	8C.13
This year's value of renewable energy subsidies due to expire in the next 2 financial years	£m	3	0	8C.14

Note: Companies to input specific subsidy which is being referenced in lines 8C.8 - 8C.10.

Bioresources liquors treated by network plus	Unit	DPs	Value	
BOD load of liquor or partially treated liquor returned from bioresources to network plus	kg/d	0	14182	8C.15
Ammonia load of liquor or partially treated liquor returned from bioresources to network plus	kg Amm-N/d	0	6139	8C.16
Recharge to Bioresources by network plus for costs of handling and treating bioresources liquors	£m	3	6.965	8C.17

Pro forma 8D

Southern Water

Bioresources sludge treatment and disposal data for the 12 months ended 31st March 2021

Line description	Units	DPs	By incumbent	By 3rd party sludge service providers	RAG 4 reference	Notes - not for publication
Sludge treatment process						
% Sludge - untreated	%	1	0	0	8D.1	*
% Sludge treatment process - raw sludge liming	%	1	0	0	8D.2	*
% Sludge treatment process - conventional AD	%	1	99.9	0	8D.3	*
% Sludge treatment process - advanced AD	%	1	0	0	8D.4	*
% Sludge treatment process - incineration of raw sludge	%	1	0	0	8D.5	*
% Sludge treatment process - other (specify)	%	1	0.1	0	8D.6	*
% Sludge treatment process - Total	%	1	100.0	0.0	8D.7	*
(Un-incinerated) sludge disposal and recycling route						
% Sludge disposal route - landfill, raw	%	1	0	0	8D.8	*
% Sludge disposal route - landfill, partly treated	%	1	0	0	8D.9	*
% Sludge disposal route - land restoration/ reclamation	%	1	0.8	0	8D.10	*
% Sludge disposal route - sludge recycled to farmland	%	1	99.2	0	8D.11	*
% Sludge disposal route - other (specify)	%	1	0	0	8D.12	*
% Sludge disposal route - Total	%	1	100.0	0.0	8D.13	*

Pro forma 9A
Southern Water

Innovation competition

Line description	Units	DPs	Current year
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RAG 4 reference

Allowed			
Allowed innovation competition fund price control revenue	£m	3	2.722

9A.1

Revenue collected for the purposes of the innovation competition			
Price control revenue collected from customers	£m	3	2.722
Non-price control revenue (e.g. royalties)	£m	3	0
Revenue collected from customers and transferred into the innovation competition fund	£m	3	0

9A.2
9A.3
9A.4

Line description	Bids accepted and awarded funding for innovation competition	Forecast expenditure on innovation projects funded through the innovation competition	Actual expenditure on innovation projects funded through the innovation competition in year	Difference between actual and forecast expenditure	Cumulative spend on innovation projects	Allowed future expenditure on innovation projects funded through the innovation competition	Expenditure on innovation projects funded by shareholders
Units	nr	£m	£m	£m	£m	£m	£m
DPs	0	3	3	3	3	3	3

Innovation project 1	0	0	0	0	0	0	0
Innovation project 2	0	0	0	0	0	0	0
Innovation project 3	0	0	0	0	0	0	0
Innovation project 4	0	0	0	0	0	0	0
Innovation project 5	0	0	0	0	0	0	0
Innovation project 6	0	0	0	0	0	0	0
Innovation project 7	0	0	0	0	0	0	0
Innovation project 8	0	0	0	0	0	0	0
Innovation project 9	0	0	0	0	0	0	0
Innovation project 10	0	0	0	0	0	0	0
Innovation project 11	0	0	0	0	0	0	0
Innovation project 12	0	0	0	0	0	0	0
Innovation project 13	0	0	0	0	0	0	0
Innovation project 14	0	0	0	0	0	0	0
Innovation project 15	0	0	0	0	0	0	0
Total	0	0.000	0.000	0.000	0.000	0.000	0.000

9A.5
9A.6
9A.7
9A.8
9A.9
9A.10
9A.11
9A.12
9A.13
9A.14
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9A.16
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9A.18
9A.19
9A.20

Administration			
Administration charge for innovation partner	£m	3	0

9A.21
