

4N - Sewage treatment - Functional expenditure

Southern Water

For the 12 months ended 31 March 2019

Line description	Unit	DPs	Network+
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A	Costs of STWs in size bands 1 to 5			
4N.1	Direct costs of STWs in size band 1	£000	3	2138.341
4N.2	Direct costs of STWs in size band 2	£000	3	1197.730
4N.3	Direct costs of STWs in size band 3	£000	3	6252.325
4N.4	Direct costs of STWs in size band 4	£000	3	8647.730
4N.5	Direct costs of STWs in size band 5	£000	3	5405.158
4N.6	General & support costs of STWs in size bands 1 to 5	£000	3	6136.085
4N.7	Functional expenditure of STWs in size bands 1 to 5	£000	3	29777.369

B	Costs of STWs in size band 6			
4N.8	Service charges for STWs in size band 6	£000	3	1083.000
4N.9	Estimated terminal pumping costs size band 6 works	£000	3	0.000
4N.10	Other direct costs of STWs in size band 6	£000	3	25954.000
4N.11	Direct costs of STWs in size band 6	£000	3	27037.000
4N.12	General & support costs of STWs in size band 6	£000	3	12010.000
4N.13	Functional expenditure of STWs in size band 6	£000	3	39047.000
4N.14	Total Functional expenditure for Sewage treatment	£000	3	68824.369

40 - Large sewage treatment works - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Units	DPs	STWNAMED01	STWNAMED02	STWNAMED03	STWNAMED04	STWNAMED05	STWNAMED06	STWNAMED07
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A Sewage treatment works - Explanatory variables										
40.1	Works name	Text	0	ASHFORD	AYLESFORD	BEXHILL AND HASTINGS	BROOMFIELD BANK	BUDDS FARM	CANTERBURY	CHICHESTER
40.2	Classification of treatment works	Text	0	TB2	TB2	TB2	TB2	TB2	TB2	TB2
40.3	Population equivalent of total load received	000	2	91.74	129.28	142.65	114.17	368.23	65.22	39.46
40.4	Suspended solids consent	mg/l	0	17	60	150	150	60	20	45
40.5	BOD ₅ consent	mg/l	0	11	25	25	25	25	15	25
40.6	Ammonia consent	mg/l	0	2					4	
40.7	Phosphorus consent	mg/l	0	1					2	
40.8	UV consent	mW/s/cm ²	0	0	0	0	0	0	0	32
40.9	Load received by STW	kgBOD ₅ /d	0	5504	7757	8559	6850	22094	3913	2368
40.10	Flow passed to full treatment	m ³ /d	0	27,336	22,053	40,865	37,882	118,891	19,988	16,879

B Sewage treatment works - Functional expenditure										
40.11	Service charges	£000	0	33.000	29.000	24.000	37.000	56.000	18.000	19.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	588.000	149.000	388.000	1330.000	725.000	55.000	261.000
40.14	Total direct expenditure	£000	0	621	178	412	1367	781	73	280
40.15	General and support expenditure	£000	0	483.000	204.000	213.000	478.000	887.000	152.000	228.000
40.16	Functional expenditure	£000	0	1104	382	625	1845	1668	225	508

40 - Large sewage treatment works - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description	Units	DPs	STWNAMED08	STWNAMED09	STWNAMED10	STWNAMED11	STWNAMED12	STWNAMED13	STWNAMED14
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A Sewage treatment works - Explanatory variables				CHICKENHALL EASTLIEGH	EASTBOURNE	FAIRLEE	FAVERSHAM	FORD	FULLERTON	GODDARDS GREEN
40.1	Works name	Text	0							
40.2	Classification of treatment works	Text	0	TB2	TB2	TB2	TB2	TB2	TB2	TB2
40.3	Population equivalent of total load received	000	2	97.05	117.44	0.00	28.29	132.77	55.88	49.19
40.4	Suspended solids consent	mg/l	0	20	150	0	60	150	20	11
40.5	BOD ₅ consent	mg/l	0	12	25	0	25	25	10	7
40.6	Ammonia consent	mg/l	0	3		0			3	3
40.7	Phosphorus consent	mg/l	0	1		0			1	2
40.8	UV consent	mW/s/cm ²	0	0	0	0	0	0	0	0
40.9	Load received by STW	kgBOD ₅ /d	0	5823	7046	0	1697	7966	3353	2951
40.10	Flow passed to full treatment	m ³ /d	0	33,803	35,741	0	6,755	38,263	20,981	12,635

B Sewage treatment works - Functional expenditure										
40.11	Service charges	£000	0	34.000	38.000	0.000	10.000	28.000	15.000	18.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	704.000	2016.000	0.000	160.000	519.000	315.000	326.000
40.14	Total direct expenditure	£000	0	738	2054	0	170	547	330	344
40.15	General and support expenditure	£000	0	378.000	934.000	0.000	74.000	247.000	166.000	217.000
40.16	Functional expenditure	£000	0	1116	2988	0	244	794	496	561

40 - Large sewage treatment works - Wholesale wastewater

For the 12 months ended 31 March 2019

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

B		Sewage treatment works - Functional expenditure								
40.11	Service charges	£000	0	35.000	19.000	0.000	17.000	18.000	18.000	34.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	381.000	395.000	0.000	134.000	456.000	377.000	1038.000
40.14	Total direct expenditure	£000	0	416	414	0	151	474	395	1072
40.15	General and support expenditure	£000	0	93.000	169.000	0.000	145.000	178.000	371.000	399.000
40.16	Functional expenditure	£000	0	509	583	0	296	652	766	1471

40 - Large sewage treatment works - Wholesale wastewater

For the 12 months ended 31 March 2019

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

B Sewage treatment works - Functional expenditure										
40.11	Service charges	£000	0	20.000	33.000	20.000	19.000	34.000	21.000	21.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	433.000	764.000	109.000	527.000	1855.000	656.000	332.000
40.14	Total direct expenditure	£000	0	453	797	129	546	1889	677	353
40.15	General and support expenditure	£000	0	185.000	282.000	62.000	173.000	832.000	247.000	115.000
40.16	Functional expenditure	£000	0	638	1079	191	719	2721	924	468

40 - Large sewage treatment works - Wholesale wastewater

For the 12 months ended 31 March 2019

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

B Sewage treatment works - Functional expenditure										
40.11	Service charges	£000	0	34.000	15.000	33.000	18.000	19.000	19.000	20.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	656.000	238.000	1438.000	116.000	448.000	870.000	531.000
40.14	Total direct expenditure	£000	0	690	253	1471	134	467	889	551
40.15	General and support expenditure	£000	0	251.000	126.000	557.000	236.000	186.000	277.000	177.000
40.16	Functional expenditure	£000	0	941	379	2028	370	653	1166	728

40 - Large sewage treatment works - Wholesale wastewater

For the 12 months ended 31 March 2019

Line description		Units	DPs	STWNAMED36	STWNAMED37	STWNAMED38	STWNAMED39	STWNAMED40	STWNAMED41	STWNAMED42
A Sewage treatment works - Explanatory variables										
40.1	Works name	Text	0	TONBRIDGE	TUNBRIDGE WELLS NORTH	TUNBRIDGE WELLS SOUTH	WEATHERLEES HILL	WHITEWALL CREEK	WEATHERLEES HILL B	WOOLSTON
40.2	Classification of treatment works	Text	0	TB2	TB2	TB2	TB2	TB2	TB2	TB2
40.3	Population equivalent of total load received	000	2	45.59	31.74	30.40	91.29	31.83	92.70	67.69
40.4	Suspended solids consent	mg/l	0	30	20	18	35	60	60	60
40.5	BOD ₅ consent	mg/l	0	20	8	12	25	25	25	25
40.6	Ammonia consent	mg/l	0	10	3	4	5	20		
40.7	Phosphorus consent	mg/l	0	2	2	2				
40.8	UV consent	mW/s/cm ²	0	0	0	0	0	0	31	0
40.9	Load received by STW	kgBOD ₅ /d	0	2735	1904	1824	5477	1910	5562	4061
40.10	Flow passed to full treatment	m ³ /d	0	12,763	8,053	10,201	19,626	6,406	21,170	14,628
B Sewage treatment works - Functional expenditure										
40.11	Service charges	£000	0	20.000	19.000	20.000	33.000	19.000	37.000	20.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	417.000	396.000	347.000	1258.000	253.000	329.000	683.000
40.14	Total direct expenditure	£000	0	437	415	367	1291	272	366	703
40.15	General and support expenditure	£000	0	214.000	189.000	179.000	473.000	106.000	74.000	312.000
40.16	Functional expenditure	£000	0	651	604	546	1764	378	440	1015

40 - Large sewage treatment works - Wholesale wastewater

Southern Water

For the 12 months ended 31 March 2019

Line description	Units	DPs	STWNAMED43	STWNAMED44	STWNAMED45
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A Sewage treatment works - Explanatory variables						
40.1	Works name	Text	0	WORTHING EAST	PEACEHAVEN	PORTOBELLO BRIGHTON
40.2	Classification of treatment works	Text	0	TB2	TB2	TB2
40.3	Population equivalent of total load received	000	2	141.73	296.69	0.00
40.4	Suspended solids consent	mg/l	0	150	150	0
40.5	BOD ₅ consent	mg/l	0	25	25	0
40.6	Ammonia consent	mg/l	0			0
40.7	Phosphorus consent	mg/l	0			0
40.8	UV consent	mW/s/cm ²	0	0	22	0
40.9	Load received by STW	kgBOD ₅ /d	0	8504	17801	0
40.10	Flow passed to full treatment	m ³ /d	0	40,323	61,992	0

B Sewage treatment works - Functional expenditure						
40.11	Service charges	£000	0	32.000	57.000	0.000
40.12	Estimated terminal pumping expenditure	£000	0	0.000	0.000	0.000
40.13	Other direct expenditure	£000	0	1079.000	1902.000	0.000
40.14	Total direct expenditure	£000	0	1111	1959	0
40.15	General and support expenditure	£000	0	353.000	388.000	0.000
40.16	Functional expenditure	£000	0	1464	2347	0

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

Southern Water

For the 12 months ended 31 March 2019

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

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

Southern Water

For the 12 months ended 31 March 2019

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

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

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