

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E3: PPP Project Analysis

Line Ref.	Description	WICS Reference AR 06	Units	Field Type	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	300	
					Highland CG	Highland CG	Tav CG	Aberdeen CG	Aberdeen CG	Aberdeen CG	Aberdeen CG	Moray Coast CG	Moray Coast CG	Moray Coast CG	AVSE CG	AVSE CG	AVSE CG	AVSE CG	AVSE CG	Levenmouth CG	Dalmuir CG	Dalduwie CG	MS CG	MS CG	MS CG	MS CG	MS CG
Project Data					R William	Inverness	Hatton	Nigg	Perth	Perthhead	Fraserburgh	Lossiemouth	Buckie	Barff/Macduff	Stafield	Newbridge	East Calder	Blackburn	Whitburn	Levenmouth	Dalmuir	Dalduwie	Meadowhead	Stevenson	Inverclyde		
E3.0	Name	E3.0	I																								
E3.1	Annual average resident connected population	E3.1	000	I/C	8.2	59.9	193.2	213.2	40.1	22.8	17.8	35.4	13.4	10.7	582.4	22.8	71.7	18.4	11.7	117.0	415.1	0.0	191.7	70.1	75.7	2191.4	
E3.2	Annual average non-resident connected population	E3.2	000	I/C	0.8	2.2	2.4	2.6	0.4	0.4	0.3	0.6	0.4	0.4	4.7	0.1	0.3	0.2	0.0	0.0	1.3	2.6	0.0	1.6	0.2	0.2	21.6
E3.3	Population equivalent of total load received	E3.5	000	I/C	16.0	62	240	283	50	40	25	43	21	13	743	28	112	26	13	168	543	0	320	67	89	2443.6	
Scope of Works																											
E3.4	Sewerage	E3.7	1.0	I	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
E3.5	Sewage Treatment	E3.8	1.0	I	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
E3.6	Sludge Treatment	E3.9	1.0	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
E3.7	Terminal Pumping Station	E3.10	1.0	I	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
E3.8	Other site details	E3.11	1.0	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sewage Treatment - Effluent Consent Standard																											
E3.9	Suspended solids consent	E3.17	mg/l	I	100	100	100	0	100	100	0	100	100	100	375	100	100	100	100	100	135	0	100	0	100	100	
E3.10	BOD consent	E3.18	mg/l	I	25	25	25	25	25	25	25	25	25	25	15	15	15	15	15	10	25	0	25	25	25	25	
E3.11	CO ₂ consent	E3.19	mg/l	I	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	
E3.12	Ammonia consent	E3.20	mg/l	I	0	0	50	0	35	0	0	0	0	0	0	7	2	2	2	2	20	0	50	50	0	0	
E3.13	Phosphate consent	E3.21	mg/l	I	0	0	0	0	2	0	0	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0	
E3.14	Compliance with effluent consent standard	E3.22	%	I	100	100	100	81	97	100	100	96	100	100	100	100	100	98	100	100	100	100	97	100	100	100	
Treatment Works Category																											
E3.15	Primary	E3.25	1.0	I	1	1	1	1	0	1	1	0	0	0	1	1	1	1	1	0	1	1	0	1	1	1	
E3.16	Secondary activated sludge	E3.26	1.0	I	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
E3.17	Secondary biological	E3.27	1.0	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
E3.18	Tertiary A1	E3.28	1.0	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
E3.19	Tertiary A2	E3.29	1.0	I	0	0	0	0	1	0	1	0	0	1	1	1	1	1	1	1	1	0	1	0	1	0	
E3.20	Tertiary B1	E3.30	1.0	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
E3.21	Tertiary B2	E3.31	1.0	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sewerage Data																											
E3.22	Total length of sewer	E3.47	km	I	4.3	10.7	40.7	35.7	0.4	1.0	1.8	31.6	18.5	9.5	44.0	3.1	0.0	0.0	0.0	8.0	0.0	11.8	0.0	0.0	0.0	222.0	
E3.23	Length of critical sewer	E3.48	km	I	4.3	10.7	40.7	35.7	0.4	1.0	1.8	31.6	18.5	9.5	44.0	3.1	0.0	0.0	0.0	8.0	0.0	11.8	0.0	0.0	0.0	222.0	
E3.24	Number of pumping stations	E3.49	nr	I	4	4	16	14	0	0	1	7	12	10	7	2	0	0	0	1	0	1	0	0	0	0	
E3.25	Capacity of pumping stations (m ³ /d)	E3.50	m ³ /day	I	65,992	247,622	2,480,129	192,871	0	0	16,848	236,463	44,240	230,242	238,223	27,063	0	0	0	3,896	503,453	0	10,320	0	0	0	
E3.26	Capacity of pumping stations (kw)	E3.51	kw	I	59	89	6,629	2,103	0	0	0	325	625	713	26	0	0	0	0	134	0	990	0	0	0	0	
E3.27	Number of combined pumping stations	E3.52	nr	I	2	1	7	12	0	0	0	4	8	7	6	1	0	0	0	1	0	0	0	0	0	0	
E3.28	Capacity of combined pumping stations (m ³ /d)	E3.53	m ³ /day	I	4,821	34,214	208,002	96,362	0	0	0	65,232	23,599	115,949	116,035	10,109	0	0	0	23,328	0	0	0	0	0	0	
E3.29	Number of stormwater pumping stations	E3.54	nr	I	0	0	2	2	0	0	0	1	1	1	0	0	0	0	0	2	0	0	0	0	0	0	
E3.30	Capacity of stormwater pumping stations (m ³ /d)	E3.55	m ³ /day	I	0	0	209,088	2,105,741	96,509	0	0	142,860	6,394	56,419	0	0	0	0	0	94,176	0	0	0	0	0	0	
E3.31	Number of combined sewer overflows	E3.56	nr	I	2	1	9	8	0	0	1	4	10	8	1	1	0	0	0	5	0	0	0	0	0	0	
E3.32	Number of combined sewer overflows (freemend)	E3.57	nr	I	2	1	9	8	0	0	1	4	10	8	1	1	0	0	0	5	0	0	0	0	0	0	
Sludge Treatment and Disposal Data																											
E3.33	Farmland Untreated	E3.58	t/tds	I/C	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	0.000	0.000	0.000	
E3.34	Farmland Conventional	E3.59	t/tds	I/C	0.000	2.889	0.246	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	3.135	
E3.35	Farmland Advanced	E3.60	t/tds	I/C	0.000	0.000	5.109	8.180	0.000	0.000	0.000	2.285	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.218	0.171	8.808	5.752	0.000	0.000	33.023	
E3.36	Incineration	E3.62	t/tds	I/C	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	0.794	0.000	37.674	0.641	0.000	0.000	38.109	
E3.37	Landfill	E3.61	t/tds	I/C	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	0.000	0.000	0.000	
E3.38	Composted	E3.63	t/tds	I/C	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	0.000	0.000	0.000	
E3.39	Land Reclamation	E3.64	t/tds	I/C	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	0.000	0.000	10.116	
E3.40	Other	E3.65	t/tds	I/C	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	0.000	0.000	20.096	

Prepared by: Date:
 Checked by: Date:
 Authorised by: Alan P. Scott Date: 10th June 2016

SECTION E: OPERATING COSTS AND EFFICIENCY

Table E3a: PPP Cost Analysis

Line Ref.	Description	Ofwat Ref R.07	WICS Reference AR.06	Units	Field Type	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	300		
						Highland CG	Highland CG	Tay CG	Aberdeen CG	Aberdeen CG	Aberdeen CG	Aberdeen CG	Moray Coast CG	Moray Coast CG	Moray Coast CG	AVSE CG	AVSE CG	AVSE CG	AVSE CG	AVSE CG	Levenmouth CG	Dalmuir CG	Dalduwie CG	MSI CG	MSI CG	MSI CG	MSI CG	MSI CG	MSI CG
E3a.0 Name		E3a.0				El William	Inverness	Hatton	Nigg	Perth	Perth	Fraserburgh	Lochmow	Buckie	Banff/Macduff	Seafield	Newbridge	East Calder	Blackburn	Whitburn	Levenmouth	Dalmuir	Dalduwie	Meadowhead	Stevenston	Inverclyde			
Sewerage Costs																													
E3a.1	Estimated direct operating cost	-	E3a.1	£m	I/C	0.042 D6	0.140 D6	2.337 D6	1.868 D6	0.005 D6	0.037 D6	0.030 D6	0.522 D6	0.410 D6	0.299 D6	0.372 D6	0.001 D6	- N	- N	- N	- DX	0.149 D6	- N	0.478 D6	- N	- N	- N	- DX	6.690 D6
E3a.2	Rates paid by the PPP contractor	-	E3a.2	£m	I/C	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	0.000 N
E3a.3	SEPA charges paid by the PPP contractor	-	E3a.3	£m	I/C	0.001 A2	- N	0.010 A2	- A2	- N	- N	- N	0.002 A2	0.006 A2	0.009 A2	0.007 A2	0.001 A2	- N	- N	- N	- N	0.002 A2	- N	- N	- N	- N	- N	- N	0.036 A2
E3a.4	Total direct cost	-	E3a.4	£m	C	0.043 D6	0.140 D6	2.347 D6	1.868 D6	0.005 D6	0.037 D6	0.030 D6	0.524 D6	0.416 D6	0.308 D6	0.379 D6	0.002 D6	- N	- N	- N	- N	0.151 D6	- N	0.478 D6	- N	- N	- N	6.726 D6	
E3a.5	Scottish Water general & support expenditure	-	E3a.5	£m	I/C	0.001 CX	0.006 C4	0.041 C4	0.130 C4	- CX	0.001 CX	- CX	0.007 C4	0.007 C4	0.006 C4	0.004 C4	- CX	- N	- N	- N	- CX	0.009 C4	- N	0.012 C4	- N	- N	- N	0.224 B4	
E3a.6	Scottish Water SEPA charges	-	E3a.6	£m	I/C	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	0.000 RX	
E3a.7	Total sewerage cost	-	E3a.7	£m	C	0.044 D6	0.146 D6	2.388 D6	1.998 D6	0.005 D6	0.038 D6	0.030 D6	0.531 D6	0.423 D6	0.314 D6	0.383 D6	0.002 D6	- N	- N	- N	- DX	0.160 D6	- N	0.490 D6	- N	- N	- N	6.952 D6	
Sewage Treatment Costs																													
E3a.8	Estimated direct operating cost	-	E3a.8	£m	I/C	0.667 D6	1.431 D6	1.869 D6	1.494 D6	1.129 D6	0.659 D6	0.616 D6	0.490 D6	0.378 D6	0.429 D6	8.607 D6	1.306 D6	0.583 D6	0.346 D6	0.463 D6	3.396 D6	2.226 D6	- N	2.003 D6	1.142 D6	- N	1.024 D6	30.258 D6	
E3a.9	Rates paid by the PPP contractor	-	E3a.9	£m	I/C	0.052 B3	0.183 B3	0.268 B3	0.448 B3	0.150 B3	0.068 B3	0.088 B3	0.040 B3	0.041 B3	0.058 B3	1.127 B3	0.120 B3	0.137 B3	0.080 B3	0.051 B3	0.213 B3	0.715 B3	- N	0.314 B3	0.239 B3	- N	0.103 B3	4.496 B3	
E3a.10	SEPA charges paid by the PPP contractor	-	E3a.10	£m	I/C	0.019 A2	0.245 A2	0.122 A2	0.148 A2	0.015 A2	0.037 A2	0.037 A2	0.034 A2	0.034 A2	0.148 A2	0.015 A2	0.138 A2	0.015 A2	0.018 A2	0.151 A2	- N	- N	- N	- N	- N	- N	- N	1.210 A2	
E3a.11	Total direct cost	-	E3a.11	£m	C	0.738 D6	1.859 D6	2.259 D6	2.090 D6	1.294 D6	0.764 D6	0.741 D6	0.564 D6	0.483 D6	0.591 D6	9.862 D6	1.441 D6	0.868 D6	0.441 D6	0.539 D6	3.760 D6	2.941 D6	- N	2.317 D6	1.381 D6	- N	1.127 D6	35.963 D6	
E3a.12	Scottish Water general & support expenditure	-	E3a.12	£m	I/C	0.012 C4	0.064 C4	0.053 C4	0.158 C4	0.016 C4	0.017 C4	0.014 C4	0.010 C4	0.006 C4	0.012 C4	0.113 C4	0.018 C4	0.015 C4	0.010 C4	0.012 C4	0.233 C4	0.052 C4	- N	0.055 C4	0.136 C4	- N	0.410 C4	2.090 B4	
E3a.13	Scottish Water SEPA charges	-	E3a.13	£m	I/C	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	0.040 A2	
E3a.14	Total sewage treatment cost	-	E3a.14	£m	C	0.750 D6	1.953 D6	2.312 D6	2.248 D6	1.310 D6	0.781 D6	0.755 D6	0.574 D6	0.481 D6	0.633 D6	9.995 D6	1.460 D6	0.873 D6	0.451 D6	0.544 D6	3.993 D6	3.412 D6	- N	2.372 D6	1.517 D6	- N	1.537 D6	39.216 D6	
E3a.15	Estimated terminal pumping cost	-	E3a.15	£m	I/C	0 M	0.003 A3	0.011 A3	0 N	0 N	0.003 N	0 M	0.001 A3	0 M	0 M	0 M	0 M	0 N	0 N	0 M	0 M	0 N	0 N	0.545 A3	0 N	0.074 A3	0.637 N		
Sludge Treatment and Disposal Costs																													
E3a.16	Estimated direct operating cost	-	E3a.16	£m	I/C	- N	0.887 D6	2.656 D6	1.887 D6	- N	- N	- N	1.787 D6	- N	- N	2.489 D6	0.798 D6	- N	- N	- N	1.379 D6	1.093 A3	12.119 D6	1.321 D6	- N	- N	- N	26.097 D6	
E3a.17	Rates paid by the PPP contractor	-	E3a.17	£m	I/C	- N	0.091 B3	0.303 B3	0.364 B3	- N	- N	- N	0.164 B3	- N	- N	0.306 B3	0.106 B3	- N	- N	- N	0.083 B3	- N	0.375 A2	0.208 B3	- N	- N	- N	2.006 B3	
E3a.18	SEPA charges paid by the PPP contractor	-	E3a.18	£m	I/C	- N	0.010 A2	0.003 A2	0.001 A2	- N	- N	- N	- N	- N	- N	0.004 A2	- N	- N	- N	- N	0.011 A2	- N	0.027 A2	0.011 A2	- N	- N	- N	0.067 A2	
E3a.19	Total direct cost	-	E3a.19	£m	C	- N	0.988 D6	2.962 D6	2.052 D6	- N	- N	- N	1.931 D6	- N	- N	2.804 D6	0.894 D6	- N	- N	- N	1.473 D6	1.003 A3	12.518 D6	1.540 D6	- N	- N	- N	28.166 D6	
E3a.20	Scottish Water general & support expenditure	-	E3a.20	£m	I/C	- N	0.515 C4	0.166 C4	0.486 C4	- N	- N	- N	0.116 C4	- N	- N	0.030 C4	0.011 C4	- N	- N	- N	0.084 C4	0.677 A3	1.533 C4	0.016 C4	- N	- N	- N	3.833 B4	
E3a.21	Scottish Water SEPA charges	-	E3a.21	£m	I/C	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	- N	0.000 N	
E3a.22	Total sludge treatment & disposal cost	-	E3a.22	£m	C	- N	1.503 D6	3.127 D6	2.538 D6	- N	- N	- N	2.047 D6	- N	- N	2.834 D6	0.905 D6	- N	- N	- N	1.557 D6	1.680 A3	14.051 D6	1.556 D6	- N	- N	- N	31.798 D6	
Total Cost Analysis																													
E3a.23	Total direct cost	-	E3a.23	£m	C	0.78 D6	2.987 D6	7.568 D6	6.010 D6	1.299 D6	0.801 D6	0.771 D6	3.019 D6	0.869 D6	0.829 D6	13.095 D6	2.337 D6	0.858 D6	0.441 D6	0.539 D6	5.384 D6	3.944 D6	12.996 D6	3.857 D6	1.381 D6	- N	1.127 D6	70.856 D6	
E3a.24	Total Scottish Water cost	-	E3a.24	£m	C	0.013 B3	0.615 B3	0.259 B3	0.774 B3	0.016 B3	0.018 B3	0.014 B3	0.133 B3	0.015 B3	0.018 B3	0.147 B3	0.030 B3	0.02 B3	0.010 B3	0.039 B3	1.148 B3	1.545 B3	- N	1.161 B3	0.893 B3	- N	0.450 B3	7.112 B3	
E3a.25	Total operating cost	-	E3a.25	£m	C	4.400 A1	7.602 A1	7.827 A1	6.784 A1	1.315 A1	0.819 A1	0.785 A1	3.152 A1	0.884 A1	0.847 A1	13.212 A1	2.367 A1	0.878 A1	0.451 A1	0.544 A1	6.710 A1	5.092 A1	14.541 A1	5.018 A1	1.774 A1	- N	1.577 A1	77.968 A1	
E3a.26	Annual charge	-	E3a.26	£m	I/C	4.400 A1	7.602 A1	22.006 A1	11.603 A1	2.498 A1	2.015 A1	1.891 A1	4.332 A1	2.735 A1	3.207 A1	21.083 A1	3.051 A1	1.664 A1	0.832 A1	1.110 A1	12.156 A1	13.046 A1	19.702 A1	7.819 A1	3.709 A1	- N	3.674 A1	150.347 A1	
E3a.27	Public sector capital equivalent value	-	E3a.27	£m	I	22.439 B3	72.443 B3	194.517 B3	107.250 B3	26.047 B3	21.450 B3	26.047 B3	47.623 B3	35.150 B3	30.615 B3	83.584 B3	12.098 B3	6.599 B3	3.299 B3	4.399 B3	41.783 B3	72.536 B3	109.900 B3	76.016 B3	21.538 B3	- N	20.778 B3	1036.110 B3	
Contract Information																													
E3a.28	Contract period	-	E3a.28	years	I	25 A1	25 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	
E3a.29	Contract end date	-	E3a.29	dd/mm/yy	I	12/12/21 A1	12/12/21 A1	16/12/29 A1	04/05/30 A1	04/05/30 A1	04/05/30 A1	04/05/30 A1	25/06/31 A1	25/06/31 A1	25/06/31 A1	30/11/29 A1	30/11/29 A1	30/11/29 A1	30/11/29 A1	30/11/29 A1	30/11/29 A1	30/11/29 A1	30/11/29 A1	30/11/29 A1	30/11/29 A1	30/11/29 A1	30/11/29 A1	30/11/29 A1	

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 Checked by: Date:
 Authorised by: Alan P. Scott Date: 10th June 2016

ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E : OPERATING COSTS AND EFFICIENCY

Table E4: Water Resources and Treatment

Line Ref.	Description	Ofwat Ref JR 07	WICS Reference AR 06	Units	Field Type
Source Types					
E4.0	Area Name	-	E4.0	-	I
E4.1	Impounding reservoirs	T12, L1	E4.1	nr, MI/d	I/C
E4.2	Lochs	-	E4.2	nr, MI/d	I/C
E4.3	River and burn abstractions	T12, L2	E4.3	nr, MI/d	I/C
E4.4	Boreholes	T12, L3	E4.4	nr, MI/d	I/C
E4.5	Total	-	E4.5	nr, MI/d	C
E4.6	Bulk water exports	-	E4.6	nr, MI/d	I/C
E4.7	Bulk water imports	-	E4.7	nr, MI/d	I/C

E4.8	Impounding reservoirs	-	E4.8	nr	C
E4.9	Lochs	-	E4.9	nr	C
E4.10	River and burn abstractions	-	E4.10	nr	C
E4.11	Boreholes	-	E4.11	nr	C
E4.12	Total	-	E4.12	nr	C

Peak demand and Pumping Head					
E4.13	Peak demand - peak to average ratio	-	E4.13	nr	I
E4.14	Average pumping head - resources and treatment	T12, L5	E4.14	m	I

Resources and Treatment costs (operational area)					
E4.15	Power	T21, L2	E1.2	£m	I/C
E4.16	Service charges by SEPA	T21, L7	E1.6	£m	I/C
E4.17	Total direct costs	T21, L10	E1.9	£m	I/C
E4.18	General and support costs	T21, L11	E1.10 + E1.11	£m	I/C
E4.19	Functional expenditure	T21, L12	E1.12	£m	C

Water Treatment Works by Process Type					
E4.20	Simple Disinfection	T12, L6	E4.17	nr, MI/d, £m	I/C
E4.21	W1	T12, L7	E4.18	nr, MI/d, £m	I/C
E4.22	W2	T12, L8	E4.19	nr, MI/d, £m	I/C
E4.23	W3	T12, L9	E4.20	nr, MI/d, £m	I/C
E4.24	W4	T12, L10	E4.21	nr, MI/d, £m	I/C
E4.25	Total numbers of works	T12, L12	E4.22	nr	C
E4.26	Total distribution input	T12, L11	E4.23	MI/d	C
E4.27	Total Operating costs	-	-	£m	C

Water Treatment Works by Size Band					
E4.28	Size band <= 1 MI/d	-	E4.30, E4.47	nr, £m	I/C
E4.29	Size band > 1 - <= 2.5 MI/d	-	E4.31, E4.48	nr, £m	I/C
E4.30	Size band > 2.5 - <= 5 MI/d	-	E4.32, E4.49	nr, £m	I/C
E4.31	Size band > 5 - <= 10 MI/d	-	E4.33, E4.50	nr, £m	I/C
E4.32	Size band > 10 - <= 25 MI/d	-	E4.34, E4.51	nr, £m	I/C
E4.33	Size band > 25 - <= 50 MI/d	-	E4.35, E4.53	nr, £m	I/C
E4.34	Size band > 50 - <= 100 MI/d	-	E4.36, E4.54	nr, £m	I/C
E4.35	Size band > 100 - <= 175 MI/d	-	E4.37, E4.55	nr, £m	I/C
E4.36	Size band > 175 MI/d	-	E4.38, E4.56	nr, £m	I/C
E4.37	Total number of works	-	E4.39	nr	C
E4.38	Proportion of distribution input - total	-	E4.40	nr	C
E4.39	Total operating costs	-	E4.57	£m	C

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10	20	30	40	100	110	120	130	140	200	299
Number of Own Sources										CG
Area 1	Area 2	Area 3	Area 4	Total Number of Sources	Own Source Outputs				Total Source Outputs	

number				average daily output (MI/d)				MI/d	
North	East	South	West	North	East	South	West		
32	19	26	28	105	77.157	292.707	420.877	535.295	1326.036
29	8	0	1	38	10.395	9.155	0.000	0.000	19.550
45	15	1	14	75	11.541	153.619	0.020	202.584	367.764
21	28	11	1	61	16.836	23.143	23.298	3.167	66.443
127	70	38	44	279	115.928	478.624	444.194	741.047	1779.793
0	0	0	0	0	0.000	0.000	0.000	0.000	0.000
0	0	0	0	0	0.000	0.000	0.000	0.000	0.000

110	120	130	140	200
Proportional Breakdown of Source output produced				
Area 1	Area 2	Area 3	Area 4	Proportion of Own Source Output
0.043	0.164	0.236	0.301	0.745
0.006	0.005	0.000	0.000	0.011
0.006	0.086	0.000	0.114	0.207
0.009	0.013	0.013	0.002	0.037
0.065	0.269	0.250	0.416	1.000

10	20
Total	CG
1,037	A2
27.9	C4

10	20	30	40	100	110
Resource and treatment - Costs					
Area 1	Area 2	Area 3	Area 4	Total	CG
2.848	3.633	2.041	3.594	12.116	A2
0.620	0.629	0.709	0.869	2.827	A2
11.021	12.847	9.445	14.696	48.009	A2
4.236	3.306	2.795	3.118	13.455	A2
15.257	16.153	12.240	17.814	61.464	A2

10	20	30	40	100	110	120
Total Nr of Works		Total volume Dist'n input		Tot. prop'n of D.I.	Operating Costs	
nr	CG	MI/d	CG	Prop'n (0-1)	£m	CG
27	B2	25.037	B3	0.014	1.977	A2
8	B2	2.272	B3	0.001	0.369	A2
30	B2	627.985	B3	0.353	12.700	A2
154	B2	1038.112	B3	0.583	40.957	A2
25	B2	86.387	B3	0.049	5.461	A2
244	B2	1779.793	B3	1.000	61.464	A2

10	20	30	40	100	110
Nr of Works		Prop'n of D.I.		Operating Costs	
nr	CG	Prop'n (0-1)	CG	£m	CG
132	B2	0.011094295	C3	9.374	A2
25	B2	0.013720901	C3	4.236	A2
23	B2	0.026614487	C3	5.478	A2
18	B2	0.047642938	C3	6.298	A2
19	B2	0.106045702	C3	9.865	A2
12	B2	0.147181166	C3	9.241	A2
9	B2	0.232562594	C3	7.067	A2
4	B2	0.216347175	C3	5.401	A2
2	B2	0.198790742	C3	4.504	A2
244	B2	1	C3	61.464	A2

ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E6: Water Distribution

Line Ref.	Description	Ofwat Ref CMR 02, JR07	WICS Reference AR 06	Units	Field Type
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Area Data					
E6.0	Name	-	E6.0	Name	I
E6.1	Annual average resident connected population	-	E6.1	000	I/C
E6.2	Total connected properties	-	E6.2	000	I/C
E6.3	Volume of water delivered to households	-	E6.3	MI/d	I/C
E6.4	Volume of water delivered to non-households	-	E6.4	MI/d	I/C
E6.5	Area	-	E6.5	km ²	I/C
E6.6	Number of supply zones	-	E6.7	nr	I/C

Distribution costs					
E6.7	Power	T21, L2	E1.2	£m	I/C
E6.8	Service charges by SEPA	T21, L7	E1.6	£m	I/C
E6.9	Total direct costs	T21, L10	E1.9	£m	I/C
E6.10	General and support costs	T21, L11	E1.10 + E1.11	£m	I/C
E6.11	Functional expenditure	T21, L12	E1.12	£m	C

Water mains data					
E6.12	Potable mains: Band 1 (<= 165mm)	T12,L13 C1	-	km	I
E6.13	Potable mains: Band 2 (166 - 320mm)	T12,L13 C2	-	km	I
E6.14	Potable mains: Band 3 (321 - 625mm)	T12,L13 C3	-	km	I
E6.15	Potable mains: Band 4 (> 625mm)	T12,L13 C4	-	km	I
E6.16	Total length of mains	-	E6.8	km	C
E6.17	Total length of unlined iron mains	-	E6.9	km	I
E6.18	Total length of mains > 320mm diameter	-	E6.10	km	C
E6.19	Water mains bursts	-	E6.11	nr	I
E6.20	Leakage level	-	E6.12	MI/d	I
E6.21	Properties reported for low pressure	-	E6.13	nr	I/C

Pumping Stations					
E6.22	Total number of pumping stations	-	E6.14	nr	I/C
E6.23	Total capacity of pumping stations	-	E6.15	m ³ /d	I/C
E6.24	Total capacity of booster pumping stations	CM3, L18	E6.15a	Kw	I/C
E6.25	Average pumping head	-	E6.16	m	I

Service Reservoirs					
E6.26	Total number of service reservoirs	CM3, L13	E6.17	nr	I/C
E6.27	Total capacity of service reservoirs	CM3, L14	E6.18	MI	I/C

Water Towers					
E6.28	Total number of water towers	CM3, L15	E6.19	nr	I/C
E6.29	Total capacity of tower towers	CM3, L16	E6.20	MI	I/C

Report Year 2015-16									
Area 1		Area 2		Area 3		Area 4		Total	
CG		CG		CG		CG		CG	

North		East		South		West			
278.742	A2	1347.187	A2	1766.738	A2	1817.948	A2	5210.6	A2
154.55	B4	675.88	B4	872.05	B4	930.13	B4	2632.604	B4
53.22	B2	234.10	B2	301.50	B2	316.62	B2	905.446	B2
20.07	B4	110.33	B4	98.92	B4	169.35	B4	398.677	B4
35208	A1	20371	A1	15475	A1	8744	A1	79799.036	A1
119	A1	58	A1	51	A1	61	A1	289	A1

0.779	A2	3.527	A2	1.772	A2	3.187	A2	9.265	A2
0.000	A2	0.000	A2	0.000	A2	0.000	A2	0.000	A2
5.839	A2	11.853	A2	13.799	A2	14.961	A2	46.452	A2
2.361	A2	3.714	A2	4.474	A2	4.270	A2	14.819	A2
8.200	A2	15.567	A2	18.273	A2	19.231	A2	61.271	A2

6306.95	B2	11567.27	B2	9984.89	B2	7908.33	B2	35767.43	B2
1211.98	B2	2401.41	B2	2776.45	B2	2312.65	B2	8702.49	B2
176.35	B2	974.37	B2	1155.62	B2	773.92	B2	3080.26	B2
7.96	B2	138.83	B2	296.42	B2	387.08	B2	830.29	B2
7703.24	B2	15081.88	B2	14213.37	B2	11381.98	B2	48380.47	B2
827.77	B2	2576.10	B2	4788.16	B2	4162.35	B2	12354.39	B2
184.31	B2	1113.20	B2	1452.04	B2	1161.00	B2	3910.55	B2
1029	B3	1398	B3	2238	B3	2119	B3	6784	B3
46.141	B3	99.357	B3	172.421	B3	213.035	B3	530.954	B3
44	B2	312	B2	38	B2	23	B2	417	B2

177	B2	182	B2	130	B2	112	B2	601	B2
148980	C4	705087	C4	549570	C4	974924	C4	2378560	C4
2739.2	C3	13353.2	C3	9533.1	C3	16125.4	C3	41751.0	C3
22.76	C4	29.38	C4	33.70	C4	29.26	C4	29.97	C4

403	B2	456	B2	248	B2	228	B2	1335	B2
216.457	B2	1191.333	B2	1061.207	B2	1519.258	B2	3988.255	B2

3	B2	6	B2	6	B2	4	B2	19	B2
0.532	B2	4.067	B2	12.544	B2	12.577	B2	29.720	B2

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ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E7: Wastewater Explanatory Factors - Sewerage & Sewage treatment by area

Line Ref.	Description	Ofwat Ref JR 07	WICS Reference AR 10	Units	Field Type
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Area Data					
E7.0	Name	-	E7.0	Name	I
E7.1	Annual average resident connected population	T17a. L1	E7.1	000	I/C
E7.2	Annual average non-resident connected population	T17a. L2	E7.2	000	I/C
E7.3	Volume of sewage collected (daily average)	T17a. L3	E7.3	MI/d	I/C
E7.4	Total connected properties	T17a. L4	E7.4	nr	I/C
E7.5	Area of Sewerage District	T17a. L5	E7.5	km ²	I/C
E7.6	Drained Area	-	E7.6	km ²	I/C
E7.7	Annual Precipitation	-	E7.7	mm	I

Sewerage Data					
E7.8	Total length of sewer	T17a. L6	E7.8	km	I/C
E7.9	Total length of lateral sewer	-	E7.9	km	I/C
E7.10	Length of combined sewer	-	E7.10	km	I/C
E7.11	Length of separate stormwater sewer	-	E7.11	km	I/C
E7.12	Length of sewer > 1000 mm diameter	-	E7.12	km	I/C
E7.13	Length of Critical Sewer	-	E7.13	km	I/C
E7.14	Sewer Collapses	-	E7.14	nr	I/C

Sewerage costs					
E7.15	Power	T22. L2	E2.2	£m	I/C
E7.16	Service charges by SEPA	T22. L7	E2.5	£m	I/C
E7.17	Total direct costs	T22. L9	E2.7	£m	C
E7.18	General and support costs	T22. L10	E2.8	£m	I/C
E7.19	Functional expenditure	T22. L11	E2.9	£m	C

Pumping Stations					
E7.20	Total number of pumping stations	-	E7.15	nr	I/C
E7.21	Total capacity of pumping stations (m ³ /d)	-	E7.16	m ³ /d	I/C
E7.22	Total capacity of pumping stations (kw)	-	E7.16a	Kw	I/C
E7.23	Average pumping head	-	E7.17	m	I
E7.24	Total number of combined pumping stations	-	E7.18	nr	I/C
E7.25	Total capacity of combined pumping stations	-	E7.19	m ³ /d	I/C
E7.26	Total number of stormwater pumping stations	-	E7.20	nr	I/C
E7.27	Total capacity of stormwater pumping stations	-	E7.21	m ³ /d	I/C
E7.28	Number of combined sewer overflows	-	E7.22	nr	I/C
E7.29	Number of combined sewer overflows (screened)	-	E7.23	nr	I/C

Sewage treatment works					
E7.30	Number of sewage treatment works	-	-	nr	I/C
E7.31	Total Load	-	-	kg BOD/day	I/C

Sewage treatment costs					
E7.32	Power	T22. L2	E2.2	£m	I/C
E7.33	Service charges by SEPA	T22. L7	E2.5	£m	I/C
E7.34	Total direct costs	T22. L9	E2.7	£m	I/C
E7.35	General and support costs	T22. L10	E2.8	£m	I/C
E7.36	Functional expenditure	T22. L11	E2.9	£m	I/C

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Report Year 2015-16									
Area 1		Area 2		Area 3		Area 4		Total	
CG		CG		CG		CG		CG	

North		East		South		West			
219.4	B2	1237.6	B2	1640.0	B2	1807.1	B2	4904.1	B2
19.9	C4	25.5	C4	14.3	C4	12.7	C4	72.5	C4
206.6	C3	887.8	C3	1137.8	C3	1152.5	C3	3384.6	C4
124116	B4	642075	B4	836145	B4	903376	B4	2505712	B4
35208	A1	20371	A1	15475	A1	8744	A1	79799	A1
153.300	A2	516.600	A2	609.600	A2	647.500	A2	1927	A2
1535	A2	1536	A2	1476	A2	1428	A2	1482	A2

3709	C4	13442	C4	17155	C4	16584	C4	50890	C4
665	C4	4062	C4	5498	C4	6323	C4	16548	C4
1443	B2	4404	B2	5470	B2	6179	B2	17495	B2
554	B2	2370	B2	3230	B2	2140	B2	8294	B2
16	B2	158	B2	269	B2	406	B2	848	B2
837	B3	2916	B3	3791	B3	3637	B3	11182	B3
17	B4	411	B4	546	B4	689	B4	1663	B4

1	A2	2	A2	2	A2	4	A2	9	A2
0	A2	1	A2	0	A2	1	A2	2	A2
4	A2	8	A2	8	A2	11	A2	31	A2
1.7	A2	3.1	A2	3.1	A2	3.3	A2	11	A2
5	A2	11	A2	11	A2	14	A2	42	A2

523	B3	796	B3	454	B3	432	B3	2205	B3
1656324	C4	3233022	C4	3200759	C4	5208099	C4	13298204	C4
9718	C4	24555	C4	15239	C4	32502	C4	82014	C4
41.8	C5	20.3	C5	14.9	C5	28.9	C5	28.9	C5
294	B3	504	B3	277	B3	285	B3	1360	B3
1169358	C4	2498196	C4	2582424	C4	4428450	C4	10678428	C4
13	B3	14	B3	3	B3	6	B3	36	B3
73903	C4	167961	C4	8826	C4	24516	C4	275206	C4
401	A3	765	A3	899	A3	917	A3	2982	A3
231	A3	112	A3	216	A3	264	A3	823	A3

565	A3	594	A3	490	A3	202	A3	1851	A3
12687	B3	44437	B3	71773	B3	92949	B3	221846	B3

2	A2	4	A2	6	A2	5	A2	17	A2
1	A2	2	A2	2	A2	2	A2	7	A2
6	A2	10	A2	14	A2	12	A2	42	A2
2.0	A2	2.3	A2	2.6	A2	2.5	A2	9	A2
8	A2	12	A2	16	A2	14	A2	51	A2

ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E: OPERATING COSTS AND EFFICIENCY
Table EB: Wastewater Explanatory Factors - Sewage Treatment Works

Line Ref.	Description	Ofwat Ref	WICS Reference	Units	Field Type	Treatment Category																		Total					
						Septic Tanks		Primary		Sec Activated Sudge	Sec biological		Tertiary A1		Tertiary A2		Tertiary B1		Tertiary B2		Sea Preliminary	Sea Screened	Sea Unscreened						
						CG		CG			CG		CG		CG		CG		CG						CG				
Numbers																													
EB.1	Size Band 0	-	EB.1	nr	I/C	978	B3	4	B3	13	B3	101	B3	8	B3	2	B3	9	B3	2	B3	0	AX	1	B3	16	B3	1134	B3
EB.2	Size Band 1	T17c.L1	EB.2	nr	I/C	111	B3	9	B3	20	B3	49	B3	5	B3	3	B3	13	B3	2	B3	0	AX	0	AX	2	B3	214	B3
EB.3	Size Band 2	T17c.L2	EB.3	nr	I/C	56	B3	6	B3	18	B3	43	B3	2	B3	3	B3	7	B3	3	B3	0	AX	0	AX	0	AX	138	B3
EB.4	Size Band 3	T17c.L3	EB.4	nr	I/C	31	B3	12	B3	42	B3	63	B3	8	B3	3	B3	18	B3	4	B3	0	AX	2	B3	0	AX	183	B3
EB.5	Size Band 4	T17c.L4	EB.5	nr	I/C	0	AX	8	B3	47	B3	37	B3	8	B3	4	B3	9	B3	2	B3	8	B3	1	B3	1	B3	125	B3
EB.6	Size Band 5	T17c.L5	EB.6	nr	I/C	0	AX	0	AX	22	B3	3	B3	5	B3	2	B3	3	B3	1	B3	0	AX	0	AX	0	AX	36	B3
EB.7	Size Band 6 (Large Works)	T17c.L6	EB.7	nr	I/C	0	AX	0	AX	17	B3	1	B3	1	B3	1	B3	1	B3	0	AX	0	AX	0	AX	0	AX	21	B3
EB.8	Total Sewage Treatment Works	T17c.L7	EB.8	nr	C	1176	B3	39	B3	179	B3	297	B3	37	B3	18	B3	60	B3	14	B3	8	B3	4	B3	19	B3	1851	B3
EB.9	Small Sewage treatment works with ammonia consent 5 - 10 mg/l	T17c.L8	EB.9	nr	I/C	0	AX	0	AX	12	A1	4	A1	23	A1	4	A1	0	AX	2	B3	0	AX	0	AX	0	AX	45	A1
EB.10	Small Sewage treatment works with ammonia consent <= 5 mg/l	T17c.L9	EB.10	nr	I/C	0	AX	0	AX	18	A1	14	A1	12	A1	3	A1	13	A1	3	A1	0	AX	0	AX	0	AX	63	A1

Loading (average daily load)						Treatment Category																		Total excluding Septic Tanks						
Line Ref.	Description	Ofwat Ref	WICS Reference	Units	Field Type	CG		CG		CG		CG		CG		CG		CG		CG		CG		CG		CG		CG		Total
EB.11	Size Band 0	-	EB.11	kg BOD/day	I/C	1553	B3	11	B3	54	B3	250	B3	38	B3	4	B3	26	B3	5	B3	0	AX	2	B3	36	B3	425	B3	
EB.12	Size Band 1	T17d.L1	EB.12	kg BOD/day	I/C	1199	B3	94	B3	222	B3	534	B3	54	B3	33	B3	154	B3	22	B3	0	AX	0	AX	18	B3	1130	B3	
EB.13	Size Band 2	T17d.L2	EB.13	kg BOD/day	I/C	1220	B3	146	B3	397	B3	998	B3	50	B3	69	B3	157	B3	68	B3	0	AX	0	AX	0	AX	1886	B3	
EB.14	Size Band 3	T17d.L3	EB.14	kg BOD/day	I/C	1725	B3	698	B3	2968	B3	4255	B3	594	B3	220	B3	1044	B3	329	B3	0	AX	136	B3	0	AX	10244	B3	
EB.15	Size Band 4	T17d.L4	EB.15	kg BOD/day	I/C	0	AX	2062	B3	15502	B3	10787	B3	2454	B3	1380	B3	2630	B3	348	B3	1750	B3	243	B3	330	B3	37486	B3	
EB.16	Size Band 5	T17d.L5	EB.16	kg BOD/day	I/C	0	AX	0	AX	20562	B3	2544	B3	4617	B3	1490	B3	2608	B3	760	B3	0	AX	0	AX	0	AX	32582	B3	
EB.17	Size Band 6 (Large Works)	T17d.L6	EB.17	kg BOD/day	I/C	0	AX	0	AX	108968	B3	3703	B3	15996	B3	1596	B3	2133	B3	0	AX	0	AX	0	AX	0	AX	132396	B3	
EB.18	Total Load Received	T17d.L7	EB.18	kg BOD/day	C	5697	B3	3010	B3	148674	B3	23072	B3	23802	B3	4793	B3	8752	B3	1533	B3	1750	B3	381	B3	384	B3	216149	B3	
EB.19	Small Sewage treatment works with ammonia consent 5 - 10 mg/l	T17d.L8	EB.19	kg BOD/day	I/C	0	AX	0	AX	3700	B3	1702	B3	2001	B3	0	AX	234	B3	935	B3	0	AX	0	AX	0	AX	8572	B3	
EB.20	Small Sewage treatment works with ammonia consent <= 5 mg/l	T17d.L9	EB.20	kg BOD/day	I/C	0	AX	0	AX	15561	B3	1701	B3	17490	B3	2884	B3	2575	B3	335	B3	0	AX	0	AX	0	AX	40547	B3	

Compliance						Treatment Category																							
Line Ref.	Description	Ofwat Ref	WICS Reference	Units	Field Type	CG		CG		CG		CG		CG		CG		CG		CG		CG		CG		CG		CG	
EB.21	Size Band 0	-	EB.21	%	I	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	0.0	AX	100.0	B2	100.0	B2	100.0	B2
EB.22	Size Band 1	-	EB.22	%	I/C	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	0.0	AX	0.0	AX	100.0	B2	100.0	B2
EB.23	Size Band 2	-	EB.23	%	I/C	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	0.0	AX	0.0	AX	0.0	AX	0.0	AX
EB.24	Size Band 3	-	EB.24	%	I/C	100.0	B2	100.0	B2	98.4	B2	100.0	B2	100.0	B2	100.0	B2	94.4	B2	75.0	B2	0.0	AX	100.0	B2	0.0	AX	0.0	AX
EB.25	Size Band 4	-	EB.25	%	I/C	100.0	B2	95.7	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2
EB.26	Size Band 5	-	EB.26	%	I/C	0.0	AX	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	66.7	B2	100.0	B2	0.0	AX	0.0	AX	0.0	AX	0.0	AX
EB.27	Size Band 6 (Large Works)	-	EB.27	%	I/C	0.0	AX	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	0.0	AX	0.0	AX	0.0	AX	0.0	AX	0.0	AX	0.0	AX
EB.28	Average compliance by works - all sizes	-	EB.28	%	I/C	100.0	B2	98.9	B2	99.7	B2	100.0	B2	100.0	B2	100.0	B2	96.7	B2	92.9	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2
EB.29	Small Sewage treatment works with ammonia consent 5 - 10 mg/l	-	EB.29	%	I/C	0.0	AX	91.7	B2	95.7	B2	100.0	B2	0.0	AX	100.0	B2	100.0	B2	100.0	B2	0.0	AX	0.0	AX	0.0	AX	0.0	AX
EB.30	Small Sewage treatment works with ammonia consent <= 5 mg/l	-	EB.30	%	I/C	0.0	AX	94.4	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	100.0	B2	0.0	AX	0.0	AX	0.0	AX	0.0	AX

Costs						Treatment Category																		Total						
Line Ref.	Description	Ofwat Ref	WICS Reference	Units	Field Type	CG		CG		CG		CG		CG		CG		CG		CG		CG		CG		CG		CG		Total
EB.31	Direct costs for works in size band 0	-	EB.31	£000	I/C	775.071	A2	7.043	A2	173.914	A2	449.012	A2	54.067	A2	18.270	A2	44.654	A2	21.241	A2	0.000	AX	0.760	A2	14.062	A2	1558.094	A2	
EB.32	Direct costs for works in size band 1	T17f.L1	EB.32	£000	I/C	580.370	A2	160.869	A2	234.482	A2	520.456	A2	44.189	A2	11.217	A2	157.521	A2	4.609	A2	0.000	AX	0.000	AX	9.361	A2	1723.074	A2	
EB.33	Direct costs for works in size band 2	T17f.L2	EB.33	£000	I/C	624.474	A2	124.030	A2	563.242	A2	705.478	A2	97.778	A2	151.380	A2	141.761	A2	66.118	A2	0.000	AX	0.000	AX	0.000	AX	2474.261	A2	
EB.34	Direct costs for works in size band 3	T17f.L3	EB.34	£000	I/C	677.979	A2	268.232	A2	1791.508	A2	1813.292	A2	371.020	A2	219.721	A2	653.926	A2	153.576	A2	0.000	AX	4.137	A2	0.000	AX	5953.391	A2	
EB.35	Direct costs for works in size band 4	T17f.L4	EB.35	£000	I/C	54.858	A2	656.203	A2	4469.604	A2	2171.902	A2	640.470	A2	715.478	A2	627.702	A2	149.845	A2	157.465	A2	22.103	A2	53.744	A2	9719.374	A2	
EB.36	Direct costs for works in size band 5	T17f.L5	EB.36	£000	I/C	0.000	AX	0.000	AX	4685.718	A2	351.313	A2	1192.387	A2	360.989	A2	490.211	A2	267.786	A2	0.000	AX	0.000	AX	0.000	AX	7348.404	A2	
EB.37	Direct costs for works in size band 6 (Large Works)	T17f.L6	EB.37	£000	I/C	0.000	AX	0.000	AX	10663.075	A2	592.978	A2	1047.953	A2	316.625	A2	104.335	A2	0.000	AX	0.000	AX	0.000	AX	0.000	AX	12724.966	A2	
EB.38	Direct costs for all sewage treatment works	T17f.L7	EB.38	£000	C	2712.752	A2	1216.377	A2	22581.543	A2	6604.431	A2	3447.864	A2	1793.680	A2	2220.110	A2	663.175	A2	157.465	A2	27.000	A2	77.167	A2	41501.564	A2	
EB.39	General and support expenditure	T17f.L12	EB.39	£000	I/C	470.777	A2	372.156	A2	4581.533	A2	2068.937	A2	599.723	A2	455.798	A2	609.064	A2	160.210	A2	32.209	A2	7.217	A2	6.513	A2	9364.137	A2	
EB.40	Functional expenditure	T17f.L13	EB.40	£000	C	3183.529	A2	1588.533	A2	27163.076	A2	8673.368	A2	4047.587	A2	2249.478	A2	2829.174	A2	823.385	A2	189.674	A2	34.217	A2	83.680	A2	50865.701	A2	
EB.41	Power costs	T17f.L10	EB.41	£000	I/C	389.381	A2	341.061	A2	11187.619	A2	1722.306	A2	2011.371	A2	799.792	A2	626.071	A2	196.388	A2	28.775	A2	0.000	AX	12.735	A2	17315.499	A2	
EB.42	Service charges SEPA	T17f.L11	EB.42	£000	I/C	1700.905	A2	251.193	A2	2482.432	A2	1338.002	A2	318.523	A2	193.351	A2	419.595	A2	90.835	A2	70.445	A2	17.864	A2	48.356	A2	6931.501	A2	

Prepared by: Date

ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E: OPERATING COSTS AND EFFICIENCY

Table E9: Large Sewage Treatment Works Information Database

Line Ref.	Description	Ofwat Ref	WICS Reference	Units	Field Type	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210		
		JR.07	AR.06			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Works Size						CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	
E9.0	Name	T17b_L1	E9.0	Name	I	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210		
E9.0a	Name of operational area	-	-	Name	I	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210		
E9.1	Population equivalent of total load received	T17b_L2	E9.5	000	I	42	45	64	27	48	94	267	247	80	31	78	36	61	50	62	114	91	60	59	75	44		
Compliance																												
E9.2	Suspended solids consent	T17b_L3	E9.11	mg/l	I	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	100	0	100	0	100	100	
E9.3	BOD consent	T17b_L4	E9.12	mg/l	I	20	75	75	15	15	75	15	15	25	6	75	25	20	25	225	75	75	0	75	75	20	20	
E9.4	CO ₂ consent	T17b_L5	E9.13	mg/l	I	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	
E9.5	Ammonia consent	T17b_L6	E9.14	mg/l	I	5	30	0	0	0	25	0	11	0	1	30	15	5	0	0	0	20	0	2	20	0		
E9.6	Phosphate consent	T17b_L7	E9.15	mg/l	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
E9.7	Compliance with effluent consent standard	-	E9.16	%	I	100	100	100	100	100	100	99	100	100	100	100	100	100	100	100	100	100	99	100	99	100	100	
Treatment Works Category																												
E9.8	Primary	T17b_L8	E9.19	1/0	I	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
E9.9	Secondary activated sludge	T17b_L8	E9.20	1/0	I	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
E9.10	Secondary biological	T17b_L8	E9.21	1/0	I	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
E9.11	Tertiary A1	T17b_L8	E9.22	1/0	I	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
E9.12	Tertiary A2	T17b_L8	E9.23	1/0	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
E9.13	Tertiary B1	T17b_L8	E9.24	1/0	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
E9.14	Tertiary B2	T17b_L8	E9.25	1/0	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Works Cost																												
E9.15	Power costs	T17b_L10	E9.26	£'000	I	163	195	159	226	216	128	626	962	60	158	338	27	436	292	351	463	346	676	1389	316	121		
E9.16	Service charges SEPA	T17b_L11	E9.27	£'000	I	24	22	38	13	47	49	58	60	43	24	47	22	28	45	41	417	30	54	152	45	22		
E9.17	Total direct costs	T17b_L9	E9.28	£'000	I	311.6	367.6	364.5	316.6	331.5	328.9	1048.0	1383.5	288.2	350.8	508.2	104.3	631.5	380.3	583.0	961.9	454.1	977.1	2116.2	596.1	310.4		
E9.18	General and support expenditure	T17b_L12	E9.29	£'000	I	69	66	91	31	37	50	89	191	42	61	87	18	88	22	59	40	68	105	320	116	37		
E9.19	Functional Expenditure	T17b_L13	E9.31	£'000	C	380	436	455	348	369	379	1198	1574	331	437	570	122	720	402	652	1002	522	1081	2436	712	348		
E9.20	Estimated terminal pumping station costs	T17b_L14	E9.42	£'000	I	0	0	109	68	0	0	0	289	18	0	0	0	3	0	88	139	123	0	417	95	21		
E9.21	Estimated sludge costs	T17b_L15	E9.43	£'000	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

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 Authorised by: Simon Parsons Date: 10th June 2016

SECTION E: OPERATING COSTS AND EFFICIENCY
Table E10: Sludge Treatment and Disposal

Line Ref.	Description	Ofwat Ref JR 07	WICS Reference AR 06	Units	Field Type	10	11	12	20	30	31	32	50	199
						Disposal category								Total
						Farmland Untreated	Farmland Conventional	Farmland Advanced	Incineration	Landfill	Composted	Land Reclamation	Other	
Sludge volumes														
E10.1	Resident population served	T17g, L1	E10.1	000	I	0.0	435.6	892.0	1054.2	16.6	0.0	258.5	25.7	2682.649
E10.2	Amount of sewage sludge	T17g, L2	E10.2	ttds	I	0.0	4.3	11.4	0.0	0.4	0.0	4.0	0.0	20.1
Sludge Treatment and Disposal costs														
E10.3	Sludge Treatment direct costs	T17g, L3	-	£000	I	0.000	3254.340	3787.317	0.000	376.861	0.000	1381.280	0.000	8799.798
E10.4	Sludge disposal direct costs	T17g, L4	-	£000	I	0.000	385.822	1087.541	0.000	311.819	0.000	666.338	0.000	2451.520
E10.5	Sludge treatment & disposal: Power costs	T17g, L6	E10.4	£000	I	0.000	994.617	604.439	0.000	40.210	0.000	420.542	0.000	2059.808
E10.6	Sludge treatment & disposal: Service charges SEPA	T17g, L7	E10.7	£000	I	0.000	9.808	18.640	0.000	4.992	0.000	12.258	0.000	45.698
E10.7	Sludge treatment & disposal: Total direct costs	T17g, L5	E10.9	£000	C	0.000	3640.162	4874.858	0.000	688.680	0.000	2047.618	0.000	11251.318
E10.8	Sludge treatment and disposal: General and support expenditure	T17g, L8	E10.10	£000	I	0.000	926.766	1239.047	0.000	405.415	0.000	903.827	0.000	3475.055
E10.9	Sludge Treatment and disposal: Functional Expenditure	T17g, L9	E10.11	£000	C	0.000	4566.928	6113.905	0.000	1094.095	0.000	2951.445	0.000	14726.373

Prepared by: Date:
 Checked by: Date:
 Authorised by: Simon Parsons Date: 10th June 2016