

SECTION E : OPERATING COSTS AND EFFICIENCY

Table E1a: Activity Based Costing - Water Service

					Report Year - 1 2004-05														999	
Line Ref.	Description	Ofwat Ref JR 00	Units	Field Type	10	20	30	40	50	60	199	210	220	230	240	250	260	299	Water Service	
					Water Resources & Treatment						Water Distribution						Total	CG		
					Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	sub total	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	sub total		
Service Analysis - Water : Direct Costs																				
E1.0	Name	-		I																
E1.1	Employment costs	T21. L1	£m	I/C						0							0		0	
E1.2	Power	T21. L2	£m	I/C						0							0		0	
E1.3	Hired and contracted services	T21. L4	£m	I/C						0							0		0	
E1.4	Estimated running cost of PPP schemes	-	£m	I/C						0							0		0	
E1.5	Materials and consumables	T21. L6	£m	I/C						0							0		0	
E1.6	Service charges SEPA	T21. L7	£m	I/C						0							0		0	
E1.7	Bulk supply imports	T21. L8	£m	I/C						0							0		0	
E1.8	Other direct costs	T21. L9	£m	I/C						0							0		0	
E1.9	Total direct costs	T21. L10	£m	C	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
E1.10	General and support employment costs	-	£m	I/C						0							0		0	
E1.11	General and support other costs	-	£m	I/C						0							0		0	
E1.12	Functional expenditure	T21. L12	£m	C	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
Operating Expenditure																				
E1.13	Customer services	T21. L13	£m	I																
E1.14	Scientific services	T21. L14	£m	I																
E1.15	Other business activities	T21. L15	£m	I																
E1.16	Total business activities	T21. L16	£m	C													0			
E1.17	Local authority rates	T21. L17	£m	I																
E1.18	Doubtful debts	T21. L18	£m	I																
E1.19	Exceptional items - start-up costs	-	£m	I																
E1.20	Exceptional items - reorganisation costs	-	£m	I																
E1.21	Exceptional items - severance costs	-	£m	I																
E1.22	Exceptional items - other costs (specify)	-	£m	I																
E1.23	Total Exceptional items	T21. L19	£m	C													0			
E1.24	Total opex less third party services	T21. L20	£m	C													0			
E1.25	Third party services - opex	T21. L21	£m	I																
E1.26	Total operating expenditure	T21. L16	£m	C													0			
Reactive and Planned Maintenance (included in Opex)																				
E1.27	Reactive and planned maintenance infrastructure	T21. L23	£m	I/C						0							0		0	
E1.28	Reactive and planned maintenance non-infrastructure	T21. L24	£m	I/C						0							0		0	
Capital Maintenance																				
E1.29	Infrastructure depreciation charge	T21. L25	£m	I/C															0	
E1.30	Non-infrastructure depreciation charge	T21. L26	£m	I/C															0	
E1.31	Amortisation of deferred credits	T21. L28	£m	I																
E1.32	Amortisation of intangible assets	T21. L29	£m	I																
E1.33	Business activities depreciation charge	T21. L30	£m	I																
E1.34	Capital maintenance less third party services	T21. L31	£m	C													0			
E1.35	Third party services - depreciation	T21. L32	£m	I																
E1.36	Total capital maintenance	T21. L33	£m	C													0			
PPP Costs																				
E1.37	Total annual charge for PPP schemes	T21. L25	£m	I																
E1.38	Annual charge for PPP schemes less estimated running	T21. L26	£m	C													0			
E1.39	Total operating costs	T21. L34	£m	C													0			

Prepared by: Date:
 Checked by: Date:
 Authorised by: Date:

ANNUAL RETURN INFORMATION REQUIREMENTS

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E1b: Activity Based Costing - Water Service

					Report Year 2005-06																		
					10	20	30	40	50	60	199	210	220	230	240	250	260	299	999				
Line Ref.	Description	Ofwat Ref JR 00	Units	Field Type	Water Resources & Treatment							Water Distribution						Water Service					
					Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	sub total	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	sub total	Total	CG			
Service Analysis - Water : Direct Costs																							
E1.0	Name	-		I	NW NE SE SW							NW NE SE SW											
E1.1	Employment costs	T21, L1	£m	I/C	3.524	2.323	1.927	4.188			11.962	3.831	3.717	3.63	7.756			18.934	30.896	A2			
E1.2	Power	T21, L2	£m	I/C	1.493	1.466	1.053	1.737			5.749	0.228	1.505	0.324	2.952			5.009	10.758	A2			
E1.3	Hired and contracted services	T21, L4	£m	I/C	0.692	0.313	0.466	1.037			2.508	0.548	0.843	1.047	0.648			3.086	5.594	A2			
E1.4	Estimated running cost of PPP schemes	-	£m	I/C	0	0	0	0			0	0	0	0	0			0	0	N			
E1.5	Materials and consumables	T21, L6	£m	I/C	1.658	1.512	1.281	4.193			8.644	0.433	0.227	0.217	0.269			1.146	9.79	A2			
E1.6	Service charges SEPA	T21, L7	£m	I/C	0.143	0.028	0.063	0.081			0.315	0	0	0	0.04			0.04	0.355	A2			
E1.7	Bulk supply imports	T21, L8	£m	I/C	0	0	0	0			0	0	0	0	0			0	0	N			
E1.8	Other direct costs	T21, L9	£m	I/C	0.221	0.268	0.195	0.472			1.156	0.106	0.325	0.33	0.969			1.73	2.886	A2			
E1.9	Total direct costs	T21, L10	£m	C	7.731	5.91	4.985	11.708	0	0	30.334	5.146	6.617	5.548	12.634	0	0	29.945	60.279	A2			
E1.10	General and support employment costs	-	£m	I/C	0.788	0.666	0.607	1.025			3.086	0.74	0.98	0.836	1.388			3.944	7.03	A2			
E1.11	General and support other costs	-	£m	I/C	1.498	1.085	1.012	1.598			5.193	2.126	2.28	1.777	3.823			10.006	15.199	A3			
E1.12	Functional expenditure	T21, L12	£m	C	10.017	7.661	6.604	14.331	0	0	38.613	8.012	9.877	8.161	17.845	0	0	43.895	82.508	A2			
Operating Expenditure																							
E1.13	Customer services	T21, L13	£m	I																		12.948	A2
E1.14	Scientific services	T21, L14	£m	I																		9.362	A2
E1.15	Other business activities	T21, L15	£m	I																		1.817	A2
E1.16	Total business activities	T21, L16	£m	C																		24.127	A2
E1.17	Local authority rates	T21, L17	£m	I																		17.139	A2
E1.18	Doubtful debts	T21, L18	£m	I																		13.283	A2
E1.19	Exceptional items - start-up costs	-	£m	I																		0	N
E1.20	Exceptional items - reorganisation costs	-	£m	I																		0.974	A2
E1.21	Exceptional items - severance costs	-	£m	I																		1.71	A2
E1.22	Exceptional items - other costs (specify)	-	£m	I																		0	N
E1.23	Total Exceptional items	T21, L19	£m	C																		2.684	A2
E1.24	Total opex less third party services	T21, L20	£m	C																		139.741	A2
E1.25	Third party services - opex	T21, L21	£m	I																		47	A3
E1.26	Total operating expenditure	T21, L16	£m	C																		186.741	A2
Reactive and Planned Maintenance (included in Opex)																							
E1.27	Reactive and planned maintenance infrastructure	T21, L23	£m	I/C	0	0	0	0	0	0	0	2.117	2.61	2.632	5.761	0	0	13.12	13.12	D3			
E1.28	Reactive and planned maintenance non-infrastructure	T21, L24	£m	I/C	1.756	0.773	0.751	1.69	0	0	4.97	0.406	0.304	0.17	0.484	0	0	1.364	6.334	D3			
Capital Maintenance																							
E1.29	Infrastructure depreciation charge	T21, L25	£m	I/C														3.83	75.526	79.356	A2		
E1.30	Non-infrastructure depreciation charge	T21, L26	£m	I/C														42.318	20.29	62.608	A3		
E1.31	Amortisation of deferred credits	T21, L28	£m	I																		-0.441	A2
E1.32	Amortisation of intangible assets	T21, L29	£m	I																		0	N
E1.33	Business activities depreciation charge	T21, L30	£m	I																		3.626	A3
E1.34	Capital maintenance less third party services	T21, L31	£m	C																		145.149	A2
E1.35	Third party services - depreciation	T21, L32	£m	I																		0	A2
E1.36	Total capital maintenance	T21, L33	£m	C																		145.149	A2
PPP Costs																							
E1.37	Total annual charge for PPP schemes	T21, L25	£m	I																		0	N
E1.38	Annual charge for PPP schemes less estimated runnin	T21, L26	£m	C																		0	N
E1.39	Total operating costs	T21, L34	£m	C																		331.89	A2

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 Checked by: Brian Strathie..... Date: 20/07/06.....
 Authorised by: Geoff Aitkenhead..... Date: 20/07/06.....

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E1c: Activity Based Costing - Water Service

Line Ref.	Description	Ofwat Ref JR00	Units	Field Type	Report Year + 1 Budget 2006-07				Report Year + 1 Forecast 2006-07				Report Year + 2 Budget 2007-08									
					10		20		50		100		110		150		200		210		250	
					Water Resources & Treatment	Water Distribution	Water Service		Water Resources & Treatment	Water Distribution	Water Service		Water Resources & Treatment	Water Distribution	Water Service		Water Resources & Treatment	Water Distribution	Water Service			
sub total		sub total		Total	CG	sub total		sub total		Total	CG	sub total		sub total		Total	CG					
Service Analysis - Water : Direct Costs																						
E1.0	Not in use																					
E1.1	Employment costs	T21, L1	£m	I/C	11.547	18.276	29.823	B3	11.547	18.276	29.823	B3	11.778	18.643	30.421	B3						
E1.2	Power	T21, L2	£m	I/C	6.526	3.858	10.384	B3	6.526	3.858	10.384	B3	6.657	3.936	10.593	B3						
E1.3	Hired and contracted services	T21, L4	£m	I/C	2.421	2.979	5.4	B3	2.421	2.979	5.4	B3	2.469	3.039	5.508	B3						
E1.4	Estimated running costs of PPP schemes	-	£m	I/C	0	0	0	N	0	0	0	N	0	0	0	N						
E1.5	Materials and consumables	T21, L6	£m	I/C	8.344	1.106	9.45	B3	8.344	1.106	9.45	B3	8.511	1.128	9.639	B3						
E1.6	Service charges SEPA	T21, L7	£m	I/C	0.304	0.039	0.343	B3	0.304	0.039	0.343	B3	0.31	0.039	0.349	B3						
E1.7	Bulk supply imports	T21, L8	£m	I/C	0	0	0	N	0	0	0	N	0	0	0	N						
E1.8	Other direct costs	T21, L9	£m	I/C	1.116	1.67	2.786	B3	1.116	1.67	2.786	B3	1.138	1.703	2.841	B3						
E1.9	Total direct costs	T21, L10	£m	C	30.258	27.928	58.186	B3	30.258	27.928	58.186	B3	30.863	28.488	59.351	B3						
E1.10	General and support employment costs	-	£m	I/C	2.979	3.807	6.786	B3	2.979	3.807	6.786	B3	3.039	3.883	6.922	B3						
E1.11	General and support other costs	-	£m	I/C	5.013	9.658	14.671	B3	5.013	9.658	14.671	B3	5.113	9.852	14.965	B3						
E1.12	Functional expenditure	T21, L12	£m	C	38.25	41.393	79.643	B3	38.25	41.393	79.643	B3	39.015	42.223	81.238	B3						
Operating Expenditure																						
E1.13	Customer services	T21, L13	£m	I			12.498	B3			12.498	B3			12.749	B3						
E1.14	Scientific services	T21, L14	£m	I			9.037	B3			9.037	B3			9.218	B3						
E1.15	Other business activities	T21, L15	£m	I			1.754	B3			1.754	B3			1.789	B3						
E1.16	Total business activities	T21, L16	£m	C			23.289	B3			23.289	B3			23.756	B3						
E1.17	Local authority rates	T21, L17	£m	I			16.544	B3			16.544	B3			16.876	B3						
E1.18	Doubtful debts	T21, L18	£m	I			12.002	B3			12.002	B3			12.243	B3						
E1.19	Exceptional items - start-up costs	-	£m	I			0	N			0	N			0	N						
E1.20	Exceptional items - reorganisation costs	-	£m	I			0	N			0	N			0	N						
E1.21	Exceptional items - severance costs	-	£m	I			0	N			0	N			0	N						
E1.22	Exceptional items - other costs (specify)	-	£m	I			0	N			0	N			0	N						
E1.23	Total Exceptional items	T21, L19	£m	C			0	N			0	N			0	N						
E1.24	Total opex less third party services	T21, L20	£m	C			131.478	B3			131.478	B3			134.113	B3						
E1.25	Third party services - opex	T21, L21	£m	I			28.785	B3			28.785	B3			29.363	B3						
E1.26	Total operating expenditure	T21, L16	£m	C			160.263	B3			160.263	B3			163.476	B3						
Reactive and Planned Maintenance (included in Opex)																						
E1.27	Reactive and planned maintenance infrastructure	T21, L23	£m	I	0	15.18	15.18	D4	0	15.18	15.18	D4	0	15.485	15.485	D4						
E1.28	Reactive and planned maintenance non-infrastructure	T21, L24	£m	I	5.75	1.578	7.328	D4	5.75	1.578	7.328	D4	5.866	1.61	7.476	D4						
Capital Maintenance																						
E1.29	Infrastructure depreciation charge	T21, L25	£m	I/C	3.061	60.352	63.413	B3	3.061	60.352	63.413	B3	3.134	61.794	64.928	B3						
E1.30	Non-infrastructure depreciation charge	T21, L26	£m	I/C	37.617	18.036	55.653	B3	37.617	18.036	55.653	B3	38.582	18.499	57.081	B3						
E1.31	Amortisation of deferred credits	T21, L28	£m	I			-0.395	B3			-0.395	B3			-0.395	B3						
E1.32	Amortisation of intangible assets	T21, L29	£m	I			0	N			0	N			0	N						
E1.33	Business activities depreciation charge	T21, L30	£m	I			3.5	B3			3.5	B3			3.57	B3						
E1.34	Capital maintenance less third party services	T21, L31	£m	C			122.171	B3			122.171	B3			125.184	B3						
E1.35	Third party services - depreciation	T21, L32	£m	I			0	B3			0	B3			0	B3						
E1.36	Total capital maintenance	T21, L33	£m	C			122.171	B3			122.171	B3			125.184	B3						
PPP Costs																						
E1.37	Total annual charge for PPP schemes	T21, L25	£m	I			0	N			0	N			0	N						
E1.38	Annual charge for PPP schemes less estimated running	T21, L26	£m	C			0	N			0	N			0	N						
E1.39	Total operating costs	T21, L34	£m	C			282.434	B3			282.434	B3			288.66	B3						

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 Authorised by: Douglas Millican..... Date: 16/06/06.....

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E2a: Activity Based Costing - Wastewater Service

					Report Year - 1 2004-05												
Line Ref.	Description	Ofwat Ref	Units	Field Type	10	20	30	40	50	60	70	80	199	210	220	999	
					Sewerage								Sewage Treatment	Sludge Treatment and Disposal	Sewerage Service Total	CG	
					Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	sub total				
Service Analysis - Waste Water Direct Costs																	
E2.0	Name	-															
E2.1	Employment costs	T22. L1	£m	I/C									0			0	
E2.2	Power	T22. L2	£m	I/C									0			0	
E2.3	Hired and contracted services	T22. L4	£m	I/C									0			0	
E2.4	Not In Use																
E2.5	Materials and consumables	T22. L6	£m	I/C									0			0	
E2.6	Service charges SEPA	T22. L7	£m	I/C									0			0	
E2.7	Not in use																
E2.8	Other direct costs	T22. L8	£m	I/C									0			0	
E2.9	Total direct costs	T22. L11	£m	C	0	0	0	0	0	0	0	0	0	0	0	0	
E2.10	General and support employment costs	-	£m	I/C									0			0	
E2.11	General and support other costs	-	£m	I/C									0			0	
E2.12	Functional expenditure	T22. L13	£m	C	0	0	0	0	0	0	0	0	0	0	0	0	
Operating Expenditure																	
E2.13	Customer services	T22. L14	£m	I													
E2.14	Scientific services	T22. L15	£m	I													
E2.15	Other business activities	T22. L16	£m	I													
E2.16	Total business activities	T22. L17	£m	C										0			
E2.17	Local authority rates	T22. L18	£m	I													
E2.18	Doubtful debts	T22. L19	£m	I													
E2.19	Exceptional items - start-up costs	-	£m	I													
E2.20	Exceptional items - reorganisation costs	-	£m	I													
E2.21	Exceptional items - severance costs	-	£m	I													
E2.22	Exceptional items - other costs (specify)	-	£m	I													
E2.23	Total Exceptional items	T22. L20	£m	C										0			
E2.24	Total opex less third party services	T22. L21	£m	C										0			
E2.25	Third party services - opex	T22. L22	£m	I													
E2.26	Total operating expenditure	T22. L23	£m	C										0			
Reactive and Planned Maintenance (included in Opex)																	
E2.27	Reactive and planned maintenance infrastructure	T22. L24	£m	I/C									0			0	
E2.28	Reactive and planned maintenance non-infrastructure	T22. L25	£m	I/C									0			0	
Capital Maintenance																	
E2.29	Infrastructure depreciation charge	T22. L26	£m	I/C												0	
E2.30	Non-infrastructure depreciation charge	T22. L28	£m	I/C												0	
E2.31	Amortisation of deferred credits	T22. L29	£m	I													
E2.32	Amortisation of intangible assets	T22. L30	£m	I													
E2.33	Business activities depreciation charge	T22. L31	£m	I													
E2.34	Capital maintenance less third party services	T22. L32	£m	C										0			
E2.35	Third party services - depreciation	T22. L33	£m	I													
E2.36	Total capital maintenance	T22. L34	£m	C										0			
Total Operating Costs																	
E2.37	Not In Use																
E2.38	Not In Use																
E2.39	Total operating costs	T22. L35	£m	C										0			

Prepared by: Date:
 Checked by: Date:
 Authorised by: Date:

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E2b: Activity Based Costing - Wastewater Service

					Report Year 2005-06												
Line Ref.	Description	Ofwat Ref	Units	Field Type	10	20	30	40	50	60	70	80	199	210	220	999	
					Sewerage									Sewage Treatment	Sludge Treatment	Sewerage Service Total	CG
					Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	sub total				
Service Analysis - Waste Water Direct Costs																	
E2.0	Name	-		I	NW	NE	SE	SW									
E2.1	Employment costs	T22, L1	£m	I/C	2.186	2.895	2.37	3.357					10.808	9.139	2.514	22.461	A2
E2.2	Power	T22, L2	£m	I/C	0.715	1.07	0.484	1.919					4.188	5.638	0.543	10.36887625	A2
E2.3	Hired and contracted services	T22, L4	£m	I/C	0.628	1.076	0.621	2.048					4.373	1.924	3.233	9.529736639	A2
E2.4	Not in use																
E2.5	Materials and consumables	T22, L6	£m	I/C	0.203	0.184	0.062	0.248					0.697	1.610	0.369	2.675922484	A2
E2.6	Service charges SEPA	T22, L7	£m	I/C	0.153	0.192	0.153	0.524					1.022	5.623	0.002	6.646917675	A2
E2.7	Not in use																
E2.8	Other direct costs	T22, L8	£m	I/C	0.08	0.238	0.278	0.531					1.127	0.702	0.03	1.859077016	A2
E2.9	Total direct costs	T22, L11	£m	C	3.965	5.655	3.968	8.627	0	0	0	0	22.215	24.6353006	6.691	53.54153006	A2
E2.10	General and support employment costs	-	£m	I/C	0.382	0.793	0.411	0.801					2.387	1.697	0.391	4.475129203	A2
E2.11	General and support other costs	-	£m	I/C	1.308	1.813	1.206	1.919					6.246	3.682	1.616	11.54401039	A2
E2.12	Functional expenditure	T22, L13	£m	C	5.655	8.261	5.585	11.347	0	0	0	0	30.848	30.01466966	8.698	69.56066966	A3
Operating Expenditure																	
E2.13	Customer services	T22, L14	£m	I												12.767	A2
E2.14	Scientific services	T22, L15	£m	I												2.283	A2
E2.15	Other business activities	T22, L16	£m	I												2.906	A2
E2.16	Total business activities	T22, L17	£m	C												17.956	A2
E2.17	Local authority rates	T22, L18	£m	I												9.4	A2
E2.18	Doubtful debts	T22, L19	£m	I												15.042	A2
E2.19	Exceptional items - start-up costs	-	£m	I												0	N
E2.20	Exceptional items - reorganisation costs	-	£m	I												0.798	A2
E2.21	Exceptional items - severance costs	-	£m	I												1.402	A2
E2.22	Exceptional items - other costs (specify)	-	£m	I												0	N
E2.23	Total Exceptional items	T22, L20	£m	C												2.2	A2
E2.24	Total opex less third party services	T22, L21	£m	C												114.1586697	A2
E2.25	Third party services - opex	T22, L22	£m	I												5.952	A3
E2.26	Total operating expenditure	T22, L23	£m	C												120.1106697	A2
Reactive and Planned Maintenance (included in Opex)																	
E2.27	Reactive and planned maintenance infrastructure	T22, L24	£m	I/C	1.393	2.463	2.218	4.616	0	0	0	0	10.69	0	0	10.69	D3
E2.28	Reactive and planned maintenance non-infrastructure	T22, L25	£m	I/C	0.85	0.568	0.656	0.514	0	0	0	0	2.588	5.916	0.468	8.972	D3
Capital Maintenance																	
E2.29	Infrastructure depreciation charge	T22, L26	£m	I/C									30.644	0	0	30.644	A2
E2.30	Non-infrastructure depreciation charge	T22, L28	£m	I/C									24.798	46.869	1.584	73.251	A3
E2.31	Amortisation of deferred credits	T22, L29	£m	I												-0.118	A2
E2.32	Amortisation of intangible assets	T22, L30	£m	I												0	N
E2.33	Business activities depreciation charge	T22, L31	£m	I												2.485	A3
E2.34	Capital maintenance less third party services	T22, L32	£m	C												106.262	A2
E2.35	Third party services - depreciation	T22, L33	£m	I												0	A2
E2.36	Total capital maintenance	T22, L34	£m	C												106.262	A2
Total Operating Costs																	
E2.37	Not In Use																
E2.38	Not In Use																
E2.39	Total operating costs	T22, L35	£m	C												226.3726697	A2

Prepared by: Laura Wilson..... Date: 20/07/06.....
 Checked by: Brian Strathie..... Date: 20/07/06.....
 Authorised by: Geoff Aitkenhead..... Date: 20/07/06.....

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E2b: Activity Based Costing - Wastewater Service

999	
Report Year 2005-06	
Comment Necessary Y/N	Comment

Line Ref.	Description	Ofwat Ref	Units	Field Type
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Service Analysis - Waste Water Direct Costs				
E2.0	Name	-		I
E2.1	Employment costs	T22, L1	£m	I/C
E2.2	Power	T22, L2	£m	I/C
E2.3	Hired and contracted services	T22, L4	£m	I/C
E2.4	Not in use			
E2.5	Materials and consumables	T22, L6	£m	I/C
E2.6	Service charges SEPA	T22, L7	£m	I/C
E2.7	Not in use			
E2.8	Other direct costs	T22, L8	£m	I/C

E2.9	Total direct costs	T22, L11	£m	C
E2.10	General and support employment costs	-	£m	I/C
E2.11	General and support other costs	-	£m	I/C

E2.12	Functional expenditure	T22, L13	£m	C
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Operating Expenditure				
E2.13	Customer services	T22, L14	£m	I
E2.14	Scientific services	T22, L15	£m	I
E2.15	Other business activities	T22, L16	£m	I
E2.16	Total business activities	T22, L17	£m	C

E2.17	Local authority rates	T22, L18	£m	I
E2.18	Doubtful debts	T22, L19	£m	I

E2.19	Exceptional items - start-up costs	-	£m	I
E2.20	Exceptional items - reorganisation costs	-	£m	I
E2.21	Exceptional items - severance costs	-	£m	I
E2.22	Exceptional items - other costs (specify)	-	£m	I
E2.23	Total Exceptional items	T22, L20	£m	C

E2.24	Total opex less third party services	T22, L21	£m	C
E2.25	Third party services - opex	T22, L22	£m	I

E2.26	Total operating expenditure	T22, L23	£m	C
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Reactive and Planned Maintenance (included in Opex)				
E2.27	Reactive and planned maintenance infrastructure	T22, L24	£m	I/C
E2.28	Reactive and planned maintenance non-infrastructure	T22, L25	£m	I/C

Capital Maintenance				
E2.29	Infrastructure depreciation charge	T22, L26	£m	I/C
E2.30	Non-infrastructure depreciation charge	T22, L28	£m	I/C
E2.31	Amortisation of deferred credits	T22, L29	£m	I
E2.32	Amortisation of intangible assets	T22, L30	£m	I
E2.33	Business activities depreciation charge	T22, L31	£m	I

E2.34	Capital maintenance less third party services	T22, L32	£m	C
E2.35	Third party services - depreciation	T22, L33	£m	I

E2.36	Total capital maintenance	T22, L34	£m	C
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Total Operating Costs				
E2.37	Not In Use			
E2.38	Not In Use			

E2.39	Total operating costs	T22, L35	£m	C
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N Please refer to commentary

General		Benchmarking A1	
A1	G	A1	G
A2	G	A2	N
A3	G	A3	N
A4	N	A4	N
AX	G	AX	G
B2	G	B2	N
B3	G	B3	N
B4	N	B4	N
BX	G	BX	N
C2	N	C2	N
C3	N	C3	N
C4	N	C4	N
C5	N	C5	N
CX	N	CX	N
M	N	M	N
N	N	N	N
D3	N	D3	N
D4	N	D4	N
D5	N	D5	N
D6	N	D6	N
DX	N	DX	N

Issues with data	Problem ?	Solution
E2.29 should equal F9.8 (col 7)	Y	Please amend numbers so they reconcile

Prepared by: Laura Wilson..... Date: 16/06/06.....
 Checked by: Brian Strathie..... Date: 16/06/06.....
 Authorised by: Douglas Millican..... Date: 16/06/06.....

ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E2c: Activity Based Costing - Wastewater Service

Line Ref.	Description	Ofwat Ref	Units	Field Type	Report Year + 1 Budget 2006-07				Report Year + 1 Forecast 2006-07				Report Year + 2 Budget 2007-08						
					10	20	30	50	100	110	120	150	200	210	220	250			
					Sewerage		Sewage Treatment	Sludge Treatment	Sewerage Service Total	Sewerage		Sewage Treatment	Sludge Treatment	Sewerage Service Total	Sewerage		Sewage Treatment	Sludge Treatment	Sewerage Service Total
					All Areas Total			CG	All Areas Total			CG	All Areas Total			CG			
Service Analysis - Waste Water Direct Costs					Name														
E2.0	Not in use																		
E2.1	Employment costs	T22, L1	£m	I/C	10.432	8.822	2.426	21.68	B3	10.432	8.822	2.426	21.68	B3	10.641	8.999	2.475	22.115	B3
E2.2	Power	T22, L2	£m	I/C	4.042	5.442	0.524	10.008	B3	4.042	5.442	0.524	10.008	B3	4.123	5.551	0.534	10.208	B3
E2.3	Hired and contracted services	T22, L4	£m	I/C	4.222	1.857	3.121	9.2	B3	4.222	1.857	3.121	9.2	B3	4.306	1.894	3.183	9.383	B3
E2.4	Not in use																		
E2.5	Materials and consumables	T22, L6	£m	I/C	0.673	1.554	0.356	2.583	B3	0.673	1.554	0.356	2.583	B3	0.687	1.585	0.363	2.635	B3
E2.6	Service charges SEPA	T22, L7	£m	I/C	0.986	5.427	0.002	6.415	B3	0.986	5.427	0.002	6.415	B3	1.006	5.536	0.002	6.544	B3
E2.7	Not in use																		
E2.8	Other direct costs	T22, L8	£m	I/C	1.088	0.678	0.029	1.795	B3	1.088	0.678	0.029	1.795	B3	1.11	0.691	0.03	1.831	B3
E2.9	Total direct costs	T22, L11	£m	C	21.443	23.78	6.458	51.681	B3	21.443	23.78	6.458	51.681	B3	21.873	24.256	6.587	52.716	B3
E2.10	General and support employment costs	-	£m	I/C	2.304	1.638	0.377	4.319	B3	2.304	1.638	0.377	4.319	B3	2.35	1.671	0.385	4.406	B3
E2.11	General and support other costs	-	£m	I/C	0.427	0.252	0.112	0.791	B3	0.427	0.252	0.112	0.791	B3	0.435	0.257	0.114	0.806	B3
E2.12	Functional expenditure	T22, L13	£m	C	24.174	25.67	6.947	56.791	B3	24.174	25.67	6.947	56.791	B3	24.658	26.184	7.086	57.928	B3
Operating Expenditure																			
E2.13	Customer services	T22, L14	£m	I				12.297	B3				12.297	B3				12.544	B3
E2.14	Scientific services	T22, L15	£m	I				2.204	B3				2.204	B3				2.248	B3
E2.15	Other business activities	T22, L16	£m	I				1.673	B3				1.673	B3				1.707	B3
E2.16	Total business activities	T22, L17	£m	C				16.174	B3				16.174	B3				16.499	B3
E2.17	Local authority rates	T22, L18	£m	I				9.074	B3				9.074	B3				9.256	B3
E2.18	Doubtful debts	T22, L19	£m	I				15.339	B3				15.339	B3				15.647	B3
E2.19	Exceptional items - start-up costs	-	£m	I				0	N				0	N				0	N
E2.20	Exceptional items - reorganisation costs	-	£m	I				0	N				0	N				0	N
E2.21	Exceptional items - severance costs	-	£m	I				0	N				0	N				0	N
E2.22	Exceptional items - other costs (specify)	-	£m	I				0	N				0	N				0	N
E2.23	Total Exceptional items	T22, L20	£m	C				0	N				0	N				0	N
E2.24	Total opex less third party services	T22, L21	£m	C				97.378	B3				97.378	B3				99.33	B3
E2.25	Third party services - opex	T22, L22	£m	I				22.328	B3				22.328	B3				22.777	B3
E2.26	Total operating expenditure	T22, L23	£m	C				119.706	B3				119.706	B3				122.107	B3
Reactive and Planned Maintenance (Included in Opex)																			
E2.27	Reactive and planned maintenance infrastructure	T22, L24	£m	I/C	12.369	0	0	12.369	D4	12.369	0	0	12.369	D4	12.618	0	0	12.618	D4
E2.28	Reactive and planned maintenance non-infrastructure	T22, L25	£m	I/C	2.995	6.845	0.542	10.382	D4	2.995	6.845	0.542	10.382	D4	3.055	6.982	0.552	10.589	D4
Capital Maintenance																			
E2.29	Infrastructure depreciation charge	T22, L26	£m	I/C	24.488	0	0	24.488	B3	24.488	0	0	24.488	B3	25.073	0	0	25.073	B3
E2.30	Non-infrastructure depreciation charge	T22, L28	£m	I/C	22.436	42.405	1.433	66.274	B3	22.436	42.405	1.433	66.274	B3	23.012	43.492	1.469	67.973	B3
E2.31	Amortisation of deferred credits	T22, L29	£m	I				-0.105	B3				-0.105	B3				-0.105	B3
E2.32	Amortisation of intangible assets	T22, L30	£m	I				0	N				0	N				0	N
E2.33	Business activities depreciation charge	T22, L31	£m	I				0.183	B3				0.183	B3				0.186	B3
E2.34	Capital maintenance less third party services	T22, L32	£m	C				90.84	B3				90.84	B3				93.127	B3
E2.35	Third party services - depreciation	T22, L33	£m	I				0	B3				0	B3				0	B3
E2.36	Total capital maintenance	T22, L34	£m	C				90.84	B3				90.84	B3				93.127	B3
Total Operating Costs																			
E2.37	Not In Use																		
E2.38	Not In Use																		
E2.39	Total operating costs	T22, L35	£m	C				210.546	B3				210.546	B3				215.234	B3

Prepared by: Laura Wilson..... Date: 16/06/06.....
 Checked by: Brian Strathie..... Date: 16/06/06.....
 Authorised by: Douglas Millican..... Date: 16/06/06.....

ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E : OPERATING COSTS AND EFFICIENCY

Table E3: PPP Project Analysis

Line Ref.	Description	Ofwat Ref	Units	Field Type	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	Total		
					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	Daldowie CG	MSI CG	MSI CG	MSI CG	CG	CG	CG	CG	CG	CG	CG
Project Data																																
E3.0	Name			I	F1 William	Inverness	Hatton	Nigg	Persley	Peterhead	Fraserburgh	Lossiemouth	Buckie	Barff/Macduff	Seaford	Newbridge	East Calder	Blackburn	Whitburn	Levenmouth	Dalmuir	Daldowie	Meadowhead	Stevenson	Inverclyde							
E3.0a	North West		1/0	I	1A1	1A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.0b	North East		1/0	I	0A1	0A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	
E3.0c	South East		1/0	I	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.0d	South West		1/0	I	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.1	Annual average resident connected population		000	IC	84B3	55.1B3	186.9B3	196.3B3	18.9B3	22.9B3	18.9B3	33.2B3	14.0B3	10.1B3	547.3B3	20.5B3	69.0B3	13.8B3	11.3B3	116.1B3	410.5B3	0N	192.7B3	70.3B3	78.8B3							
E3.2	Annual average non-resident connected population		000	IC	1.1B3	2.9B3	3.2B3	3.5B3	0.6B3	0.7B3	0.3B3	1.0B3	0.9B3	0.6B3	12.0B3	0.2B3	0.4B3	0.3B3	0.1B3	1.9B3	5.1B3	0N	3.8B3	0.7B3	0.6B3							
E3.3	Trade effluent load received by works		kg/COD/day	LC	437B4	1,887B4	4,870B4	5,100B4	829B4	3,977B4	3,207B4	392B4	1,450B4	267B4	20,393B4	1,753B4	3,865B4	543B4	71B4	24,798B4	10,797B4	0N	25,733B4	7,998B4	327B4							
E3.4	Tanker load received by works		kg/COD/day	LC	1B4	3B4	0B4	0B4	0B4	0B4	0B4	0B4	0B4	0B4	4,981B4	0B4	0B4	0B4	0B4	0B4	75B4	0N	0B4	0B4	0B4							
E3.5	Population equivalent of total load received		000	IC	15.8B3	84.9B3	268.4B3	278.8B3	29.8B3	57.6B3	50.5B3	41.9B3	29.4B3	14.3B3	878.5B3	52.7B3	100.8B3	19.0B3	12.6B3	308.5B3	610.5B3	0N	439.9B3	101.1B3	94.2B3							
E3.6	Project Status			I	S10	A1	S10	A1	S10	A1	S10	A1	S10	A1	S10	A1	S10	A1	S10	A1	S9	A1	S10	A1	S10	A1	S10	A1	S10	A1	S10	A1
Scope of Works																																
E3.7	Sewerage		1/0	I	1A1	1A1	1A1	1A1	0A1	0A1	1A1	1A1	1A1	1A1	1A1	1A1	0A1	0A1	0A1	0A1	1A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.8	Sewerage Treatment		1/0	I	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	
E3.9	Sludge Treatment		1/0	I	0A1	1A1	1A1	1A1	0A1	0A1	0A1	1A1	1A1	0A1	1A1	1A1	0A1	0A1	0A1	0A1	1A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.10	Terminal Pumping Station		1/0	I	1A1	1A1	1A1	1A1	0A1	0A1	1A1	1A1	1A1	1A1	0A1	0A1	0A1	0A1	0A1	1A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.11	Other (state details)		1/0	I	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.12	Not In Use																															
E3.13	Not In Use																															
E3.14	Not In Use																															
E3.15	Not In Use																															
E3.16	Not In Use																															
Sewerage Treatment - Effluent Consent Standard																																
E3.17	Suspended solids consent		mg/l	I	35A1	35A1	0N	0N	40A1	0N	0N	0N	0N	0N	150A1	0N	0N	0N	0N	0N	35A1	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	
E3.18	BOD consent		mg/l	I	25A1	25A1	0N	0N	25A1	0N	0N	25A1	25A1	0N	0N	15A1	15A1	10A1	10A1	25A1	25A1	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	
E3.19	COD consent		mg/l	I	0N	0N	0N	0N	0N	0N	0N	125A1	125A1	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	
E3.20	Ammonia consent		mg/l	I	0N	0N	50A1	0N	35A1	0N	0N	0N	0N	0N	0N	5A1	2A1	2A1	1A1	0N	0N	0N	50A1	50A1	0N	0N	0N	0N	0N	0N	0N	
E3.21	Phosphate consent		mg/l	I	0N	0N	0N	0N	2A1	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	0N	
E3.22	Compliance with effluent consent standard		%	I	100A1	100A1	100A1	0N	100A1	0N	0N	94.73A1	100A1	0N	100A1	93.33A1	93.75A1	100A1	95.53A1	100A1	84A1	0N	100A1	100A1	0N	0N	0N	0N	0N	0N	0N	
Sewerage Treatment - Flow																																
E3.23	Average daily flow in dry weather		Mld	LC	4B3	22B3	81B2	69B3	13B3	10B2	7B3	11B3	6B3	4B3	241B3	11B3	28B3	6B3	4B3	58B3	218B2	0N	94B2	46B2	40B2							
E3.24	Ratio of daily maximum to minimum flow		nr	LC	2.3B3	1.9B3	2.8B3	2.2B3	3B3	1.8B3	1.9B3	2.6B3	1.9B3	2.9B3	1.6B3	0M	0M	0M	0M	1.5B3	1.8B3	0N	1.4B3	1.5B3	1.4B3							
Treatment Works Category																																
E3.25	Primary		1/0	I	1A1	1A1	1A1	1A1	0A1	1A1	1A1	0A1	0A1	0A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	0N	0A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	
E3.26	Secondary activated sludge		1/0	I	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	0N	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	
E3.27	Secondary biological		1/0	I	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0N	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.28	Tertiary A1		1/0	I	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0N	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.29	Tertiary A2		1/0	I	0A1	1A1	0A1	0A1	1A1	0A1	1A1	0A1	1A1	0A1	1A1	0A1	1A1	0A1	1A1	0A1	1A1	0N	1A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.30	Tertiary B1		1/0	I	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0N	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.31	Tertiary B2		1/0	I	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0N	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
Miscellaneous Data																																
E3.32	Sea outfalls at works		1/0	I	1A1	1A1	1A1	1A1	0A1	1A1	1A1	1A1	1A1	1A1	0A1	0A1	0A1	0A1	0A1	0A1	1A1	0A1	0A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	1A1	
E3.33	Terminal Pumping costs		1/0	I	1A1	1A1	1A1	0A1	0A1	0A1	1A1	1A1	1A1	1A1	0A1	0A1	0A1	0A1	0A1	0A1	1A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.34	Own sludge		1/0	I	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0N	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.35	Not In Use																															
E3.36	Sludge centre		1/0	I	0A1	1A1	1A1	1A1	0A1	0A1	0A1	1A1	0A1	0A1	1A1	1A1	0A1	0A1	0A1	0A1	1A1	0A1	1A1	1A1	0A1	0A1	0A1	0A1	0A1	0A1	0A1	
E3.37	Not In Use																															
E3.38	Not In Use																															
E3.39	Not In Use																															
E3.40	Not In Use																															
E3.41	Not In Use																															
E3.42	Not In Use																															
E3.43	Not In Use																															
E3.44	Not In Use																															
E3.45	Not In Use																															
E3.46	Not In Use																															
Sewerage Data																																
E3.47	Total length of sewer		km	I	2.9B3	8.6B3	34.5B3	15B3	0N	0N	0.7B3	32.4B3	24.3B3																			

ANNUAL RETURN INFORMATION REQUIREMENT

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

Main data table with columns for Line Description Ref, Units, Field Type, and 100+ columns for various regions (Highland, Aberdeen, Moray Coast, AVSE, Levenmouth, etc.) and a Total column. Includes sub-sections for Project Data, Scope of Works, Sewage Treatment - Effluent Control Standard, Sewage Treatment - Flow, Treatment Works Category, Measurement Data, Sewerage Data, and Sludge Treatment and Disposal Data.

Prepared by: Laura Wilson, Date: 14/06/04
Checked by: Brian Strain, Date: 14/06/04
Authorised by: Douglas Wilson, Date: 14/06/04

ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E3a: PPP Cost Analysis

Line Ref.	Description	Ofwat Ref	Units	Field Type	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	199		
					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	Daldowie CG	MSI CG	MSI CG	MSI CG	CG	CG	CG	CG	CG	CG	CG
E3a.0	Name				FT William	Inverness	Hatton	Nigg	Persley	Peterhead	Fraserburgh	Lossie Mouth	Buckie	Banff/Macduff	Seafield	Newbridge	East Calder	Blackburn	Whitburn	Levenmouth	Dalmuir	Daldowie	Meadowhead	Stevenson	Inverclyde							
Sewerage Costs																																
E3a.1	Estimated direct operating cost		£m	LC	0.03 D6	0.102 D6	1.698 D6	0.265 D6	0 N	0 N	0.01 D6	0.378 D6	0.293 D6	0.217 D6	0.281 D6	0.002 D6	0 N	0 N	0 N	0.11 D6	0 N	0 N	0 N	0 N	0 Bx						3.388 D6	
E3a.2	Rates paid by the PPP contractor		£m	LC	0.049 B3	0.194 B3	0.235 B3	0.391 B3	0.125 B3	0.056 B3	0.064 B3	0.43 B3	0.033 B3	0.038 B3	0.771 B3	0.098 B3	0.103 B3	0.045 B3	0.033 B3	0.119 B3	0.619 B3	0 N	0.23 B3	0.171 B3	0.082 B3						0 N	
E3a.3	SEPA charges paid by the PPP contractor		£m	LC	0.003 A2	0.003 A2	0.01 A2	0 Bx	0 N	0 N	0 Bx	0.005 A2	0.012 A2	0.013 A2	0 N	0 N	0 N	0 N	0 N	0.002 A2	0 N	0 N	0 N	0 N	0 N	0 N					0.048 A2	
E3a.4	Total direct cost		£m	C	0.033 D6	0.105 D6	1.708 D6	0.265 D6	0 N	0 N	0.01 D6	0.383 D6	0.305 D6	0.23 D6	0.281 D6	0.002 D6	0 N	0 N	0 N	0.112 D6	0 N	0 N	0 N	0 N	0 Bx	0	0	0	0	0	3.434 D6	
E3a.5	Scottish Water general & support expenditure		£m	LC	0 B4	0.003 B4	0.035 B4	0.009 B4	0 N	0 N	0 Bx	0.048 B4	0.003 B4	0.012 B4	0.01 B4	0 Bx	0 N	0 N	0 N	0.001 B4	0 N	0 N	0 N	0 N	0 Bx						0.13 B4	
E3a.6	Scottish Water SEPA charges		£m	LC	0 N	0 N	0 N	0 N	0 N	0 N	0 A2	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 Bx						0 A2	
E3a.7	Total sewerage cost		£m	C	0.033 D6	0.108 D6	1.743 D6	0.274 D6	0 N	0 N	0.01 D6	0.429 D6	0.308 D6	0.242 D6	0.292 D6	0.002 D6	0 N	0 N	0 N	0.113 D6	0 N	0 N	0 N	0 N	0 D6	0	0	0	0	0	3.554 D6	
Sewage Treatment Costs																																
E3a.8	Estimated direct operating cost		£m	LC	0.456 D6	0.994 D6	1.328 D6	0.698 D6	0.709 D6	0.468 D6	0.426 D6	0.362 D6	0.274 D6	0.297 D6	5.042 D6	0.771 D6	0.37 D6	0.206 D6	0.28 D6	2.157 D6	1.454 D6	0 N	1.412 D6	0.817 D6	0.729 D6						19.249 D6	
E3a.9	Rates paid by the PPP contractor		£m	LC	0.049 B3	0.194 B3	0.235 B3	0.391 B3	0.125 B3	0.056 B3	0.064 B3	0.43 B3	0.033 B3	0.038 B3	0.771 B3	0.098 B3	0.103 B3	0.045 B3	0.033 B3	0.119 B3	0.619 B3	0 N	0.23 B3	0.171 B3	0.082 B3						3.476 B3	
E3a.10	SEPA charges paid by the PPP contractor		£m	LC	0.046 A2	0.17 B3	0.12 B3	0.297 B3	0.011 A2	0.026 A2	0.054 B3	0.032 B3	0.032 B3	0.032 B3	0.062 A2	0.007 A2	0.066 A2	0.006 A2	0.004 A2	0.106 B3	0 N	0 N	0 N	0 N	0 N						1.065 B3	
E3a.11	Total direct cost		£m	C	0.551 D6	1.348 D6	1.683 D6	1.396 D6	0.844 D6	0.55 D6	0.544 D6	0.424 D6	0.339 D6	0.371 D6	5.878 D6	0.876 D6	0.529 D6	0.257 D6	0.317 D6	2.382 D6	2.073 D6	0 N	1.642 D6	0.988 D6	0.811 D6	0	0	0	0	0	23.79 D6	
E3a.12	Scottish Water general & support expenditure		£m	LC	0.006 B4	0.041 B4	0.034 B4	0.046 B4	0.01 B4	0.017 B4	0.006 B4	0.051 B4	0.004 B4	0.02 B4	0.226 B4	0.01 B4	0.006 B4	0.003 B4	0.004 B4	0.026 B4	0.179 B4	0 N	0.019 B4	0.011 B4	0.007 B4						0.728 B4	
E3a.13	Scottish Water SEPA charges		£m	LC	0 N	0 N	0 N	0.19 A2	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0.296 A2	0 N	0.16 B3	0.086 A2	0.016 A2						0.748 A2	
E3a.14	Total sewage treatment cost		£m	C	0.557 D6	1.389 D6	1.717 D6	1.622 D6	0.854 D6	0.567 D6	0.55 D6	0.478 D6	0.343 D6	0.391 D6	6.101 D6	0.888 D6	0.535 D6	0.26 D6	0.321 D6	2.408 D6	2.548 D6	0 N	1.821 D6	1.088 D6	0.834 D6	0	0	0	0	0	25.264 D6	
E3a.15	Estimated terminal pumping cost		£m	LC	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M	0 M						0 M	
Sludge Treatment and Disposal Costs																																
E3a.16	Estimated direct operating cost		£m	LC	0 N	0.615 D6	1.915 D6	0.902 D6	0 N	0 N	0 N	1.248 D6	0 N	0 N	1.341 D6	0.421 D6	0 N	0 N	0 N	0.882 D6	0 N	6.438 D6	0.935 D6	0 N	0 N						14.697 D6	
E3a.17	Rates paid by the PPP contractor		£m	LC	0 N	0.091 B3	0.268 B3	0.25 B3	0 N	0 N	0 N	0.121 B3	0 N	0 N	0.193 B3	0.07 B3	0 N	0 N	0.046 B3	0 N	0.307 A2	0.153 B3	0 N	0 N							1.499 B3	
E3a.18	SEPA charges paid by the PPP contractor		£m	LC	0 N	0 Bx	0 Bx	0 Bx	0 N	0 N	0 N	0 Bx	0 N	0 N	0.004 A2	0.003 A2	0 N	0 N	0 N	0 Bx	0 N	0.015 A2	0 N	0 N	0 N						0.022 Bx	
E3a.19	Total direct cost		£m	C	0 N	0.706 D6	2.183 D6	1.152 D6	0 N	0 N	0 N	1.369 D6	0 N	0 N	1.538 D6	0.498 D6	0 N	0 N	0 N	0.908 D6	0 N	6.78 D6	1.088 D6	0 N	0 N	0	0	0	0	0	16.218 D6	
E3a.20	Scottish Water general & support expenditure		£m	LC	0 N	0.098 B4	0.129 B4	0.182 B4	0 N	0 N	0 N	0.269 B4	0 N	0 N	0.221 B4	0.041 B4	0 N	0 N	0 N	0.138 B4	0 N	1.017 B4	0.158 B4	0 N	0 N						2.251 B4	
E3a.21	Scottish Water SEPA charges		£m	LC	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 Bx	0 N	0 N						0 N	
E3a.22	Total sludge treatment & disposal cost		£m	C	0 N	0.804 D6	2.312 D6	1.334 D6	0 N	0 N	0 N	1.638 D6	0 N	0 N	1.758 D6	0.538 D6	0 N	0 N	0 N	1.064 D6	0 N	7.777 D6	1.246 D6	0 N	0 N	0	0	0	0	0	18.468 D6	
Total Cost Analysis																																
E3a.23	Total direct cost		£m	C	0.584 D6	2.159 D6	5.574 D6	2.803 D6	0.844 D6	0.55 D6	0.554 D6	2.178 D6	0.644 D6	0.601 D6	7.694 D6	1.372 D6	0.529 D6	0.257 D6	0.317 D6	3.422 D6	2.073 D6	6.76 D6	2.73 D6	0.988 D6	0.811 D6	0	0	0	0	0	43.442 D6	
E3a.24	Total Scottish Water cost		£m	C	0.006 B3	0.142 B3	0.198 B3	0.427 B3	0.01 B3	0.017 B3	0.006 B3	0.366 B3	0.007 B3	0.032 B3	0.458 B3	0.051 B3	0.006 B3	0.003 B3	0.004 B3	0.163 B3	0.475 B3	1.017 B3	0.337 B3	0.097 B3	0.023 B3	0	0	0	0	0	3.845 B3	
E3a.25	Total operating cost		£m	C	0.59 D6	2.301 D6	5.772 D6	3.23 D6	0.854 D6	0.567 D6	0.56 D6	2.542 D6	0.651 D6	0.633 D6	8.152 D6	1.423 D6	0.535 D6	0.26 D6	0.321 D6	3.585 D6	2.548 D6	7.777 D6	3.087 D6	1.085 D6	0.834 D6	0	0	0	0	0	47.287 D6	
E3a.26	Annual charge		£m	LC	2.913 A1	4.705 A1	16.914 A1	8.962 A1	2.953 A1	2.276 A1	2.022 A1	4.447 A1	3.386 A1	3.035 A1	15.022 B3	2.157 B3	1.238 B3	0.612 B3	0.782 B3	10.613 A1	6.847 A1	15.672 A1	6.215 A1	2.848 A1	2.996 A1						118.015 B3	
E3a.27	Public sector capital equivalent value		£m	I	16.335 B3	52.737 B3	141.605 B3	78.076 B3	18.961 B3	15.615 B3	18.961 B3	34.669 B3	25.589 B3	22.287 B3	61.932 B3	8.964 B3	4.889 B3	2.445 B3	3.26 B3	30.959 B3	53.746 B3	81.431 B3	55.338 B3	15.679 B3	15.126 B3						B3	
Contract Information																																
E3a.28	Contract period		years	I	16 A1	53 A1	142 A1	78 A1	19 A1	16 A1	19 A1	35 A1	26 A1	22 A1	62 A1	9 A1	5 A1	2 A1	3 A1	31 A1	54 A1	81 A1	55 A1	16 A1	15 A1						A1	
E3a.29	Contract end date		dd/mm/yy	I	##### A1	##### A1	15/12/2029 A1	04/05/2030 A1	04/05/2030 A1	04/05/2030 A1	04/05/2030 A1	25/06/2031 A1	##### A1	25/06/2031 A1	30/11/2029 A1	30/11/2029 A1	30/11/2029 A1	30/11/2029 A1	2 A1	3 A1	31 A1	54 A1	81 A1	29/09/2032 A1	29/09/2032 A1	29/09/2032 A1						A1

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ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E4: Water Explanatory Factors - Resources and Treatment

Line Ref.	Description	Ofwat Ref	Units	Field Type
E4.0	Area Name	-	-	I
E4.1	Impounding reservoirs	T12, L1	nr, ml/d	I/C
E4.2	Lochs	-	nr, ml/d	I/C
E4.3	River and burn abstractions	T12, L2	nr, ml/d	I/C
E4.4	Boreholes	T12, L3	nr, ml/d	I/C
E4.5	Total	-	nr, ml/d	C
E4.6	Raw water exports	-	nr, ml/d	I/C
E4.7	Raw water imports	-	nr, ml/d	I/C

Number of Own Sources						Total Sources	Own Source Outputs						Total Source Outputs
Area 1	Area 2	Area 3	Area 4	Area 5	Area 6		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	
49	18	35	71			173	103.7	190.5	333.6	1024.7			1652.478234
58	0	0	2			60	30.1	0.0	0.0	9.2			39.22917121
102	24	22	93			241	16.4	204.5	11.6	333.2			565.6974503
37	29	22	6			94	29.1	16.6	25.9	3.2			74.83826484
246	71	79	172	0	0	568	179.3	411.65	371.07	1370.2	0	0	2332.24312
0	0	0	0			0	0	0	0	0			0
0	0	0	0			0	0	0	0	0			0

Line Ref.	Description	Ofwat Ref	Units	Field Type
E4.8	Impounding reservoirs	-	nr	C
E4.9	Lochs	-	nr	C
E4.10	River and burn abstractions	-	nr	C
E4.11	Boreholes	-	nr	C
E4.12	Total	-	nr	C

number				number	average daily output (MI/d)				MI/d
NW	NE	SE	SW		NW	NE	SE	SW	
49	18	35	71		173	103.7	190.5	333.6	1024.7
58	0	0	2		60	30.1	0.0	0.0	9.2
102	24	22	93		241	16.4	204.5	11.6	333.2
37	29	22	6		94	29.1	16.6	25.9	3.2
246	71	79	172	0	568	179.3	411.65	371.07	1370.2
0	0	0	0		0	0	0	0	0
0	0	0	0		0	0	0	0	0

Peak demand and Pumping Head				
E4.13	Peak demand - peak to average ratio	T12, L5	nr	I
E4.14	Average pumping head - resources and treatment	T12, L6	m	I
E4.15	Not in use			
E4.16	Not in use			

Peak Ratio & Pumping Head						Average Peak Ratio	150
Area 1	Area 2	Area 3	Area 4	Area 5	Area 6		Average Pumping Head
1.059	1.059	1.073	1.059			1.029	23.76
16.2	24.4	19.8	25.6				

Water Treatment Works by ProcessType				
E4.17	Simple Disinfection	-	nr, ml/d	I/C
E4.18	W1	-	nr, ml/d	I/C
E4.19	W2	-	nr, ml/d	I/C
E4.20	W3	-	nr, ml/d	I/C
E4.21	W4	-	nr, ml/d	I/C
E4.22	Total numbers of works	T12, L17	nr, ml/d	C
E4.23	Total distribution input	T12, L16	nr, ml/d	C

Number of Own Works						Total Nr of Works	Volume of Distribution Input Produced						Total volume Dist'n input
Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	nr	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	MI/d
50	13	18	5			86	18.3	13.6	28.1	301.3			361.2970623
67	0	5	5			77	13.5	0.0	51.6	15.9			81.07206205
42	12	7	5			66	81.8	193.2	142.5	424.6			842.1496567
40	13	14	37			104	65.7	204.8	148.9	628.3			1047.735399
0	0	0	0			0	0	0	0	0			0
199	38	44	52	0	0	333	179.3	411.65	371.07	1370.2	0	0	2332.25418

E4.24	Simple Disinfection	-	nr	C
E4.25	W1	-	nr	C
E4.26	W2	-	nr	C
E4.27	W3	-	nr	C
E4.28	W4	-	nr	C
E4.29	Total	-	nr	C

Proportional Breakdown of Distribution Input						Tot. prop'n of D.I.
Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Prop'n (0-1)
0.01	0.01	0.01	0.13	0.00	0.00	0.15
0.01	0.00	0.02	0.01	0.00	0.00	0.03
0.04	0.08	0.06	0.18	0.00	0.00	0.36
0.03	0.09	0.06	0.27	0.00	0.00	0.45
0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.08	0.18	0.16	0.59	0.00	0.00	1.00

Water Treatment Works by Size Band				
E4.30	Size band <=1 MI/d	-	nr	I/C
E4.31	Size band >1 - <=2.5 MI/d	-	nr	I/C
E4.32	Size band >2.5 - <=5 MI/d	-	nr	I/C
E4.33	Size band >5 - <=10 MI/d	-	nr	I/C
E4.34	Size band >10 - <=25 MI/d	-	nr	I/C
E4.35	Size band >25 - <=50 MI/d	-	nr	I/C
E4.36	Size band >50 - <=100 MI/d	-	nr	I/C
E4.37	Size band >100 - <=175 MI/d	-	nr	I/C
E4.38	Size band >175 MI/d	-	nr	I/C
E4.39	Total numbers of works	-	nr	C
E4.40	Proportion of distribution input - total	-	nr	C

Number of Own Works						Total Nr of Works	Proportional Breakdown of Distribution						Tot. prop'n of D.I.
Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	nr	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Prop'n (0-1)
158	10	12	17			197	0.009	0.001	0.001	0.001			0.011861176
17	6	6	2			31	0.006	0.002	0.004	0.001			0.0133614
9	10	9	6			34	0.008	0.009	0.009	0.010			0.036234569
7	1	5	6			19	0.011	0.001	0.012	0.014			0.037935272
6	2	6	10			24	0.025	0.011	0.027	0.061			0.123279952
2	5	4	2			13	0.018	0.052	0.052	0.027			0.149477727
0	4	1	4			9	0	0.100	0.020	0.098			0.21798611
0	0	1	3			4	0	0	0.034	0.141			0.175023972
0	0	0	2			2	0	0	0	0.235			0.234839822
199	38	44	52	0	0	333	0.0769	0.1765	0.1591	0.5875	0	0	1

Bulk Imports and Exports				
E4.41	Bulk Imports from other Agencies	-	MI/d	I/C
E4.42	Bulk Exports to other Agencies	-	MI/d	I/C
E4.43	Internal Imports from other resource areas	-	MI/d	I/C
E4.44	Internal Exports to other resource areas	-	MI/d	I/C
E4.45	Net change in volume	-	MI/d	C
E4.46	Distribution input within area	-	MI/d	C

Treated Water Transfers						Total
Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	
0	0	0	0			0
0	0	0	0			0
0	18.50	48.11	0			66.61005808
4.73	0	0	61.88			66.61005808
-4.727	18.501	48.11	-61.883	0	0	0
174.57	430.15	419.18	1308.3	0	0	2332.24312

net internal change should be zero

Costs				
E4.47	Works size band <= 1 MI/d	-	£000	I/C
E4.48	Works size band >1 to <= 2.5 MI/d	-	£000	I/C
E4.49	Works size band >2.5 to <=5 MI/d	-	£000	I/C
E4.50	Works size band >5 to <=10 MI/d	-	£000	I/C
E4.51	Works size band >10 to <=25 MI/d	-	£000	I/C
E4.52	Sub-total small treatment works	-	£000	C
E4.53	Works size band >25 to <=50 MI/d	-	£000	I/C
E4.54	Works size band >50 to <=100 MI/d	-	£000	I/C
E4.55	Works size band >100 to <=175 MI/d	-	£000	I/C
E4.56	Works size band > 175 MI/d	-	£000	I/C
E4.57	Sub-total large treatment works	-	£000	C
E4.58	Total numbers of works	-	£000	C

Operating cost by area						Total
Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	
2757	179.56	192.68	312.22			3441.408
1285.4	214.87	277.17	201.27			1978.743
1270.6	648.83	689.03	652.9			3261.339
1221	134.31	646.7	888.58			2890.59
1902.4	509.3	1632.2	2705			6748.882
8436.3	1686.9	3437.8	4760	0	0	18320.962
1581.2	2572.8	1919.4	949.93			7023.336
0	3400.5	451.12	2326.6			6178.199
0	0	797.34	2644			3441.324
0	0	0	3651.2			3651.161
1581.2	5973.4	3167.8	9571.6	0	0	20294.02
10018	7660.2	6605.6	14332	0	0	38614.982

* This reference refers to JR00 whereas all other lines refer to JR01.

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SECTION E : OPERATING COSTS AND EFFICIENCY
Table E4: Water Explanatory Factors - Resources and Treatment

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

Peak demand and Pumping Head				
E4.13	Peak demand - peak to average ratio	T12, L5	nr	I
E4.14	Average pumping head - resources and treatment	T12, L6	m	I
E4.15	Not in use			
E4.16	Not in use			

Water Treatment works by Process type				
E4.17	Simple Disinfection	-	nr, ml/d	I/C
E4.18	W1	-	nr, ml/d	I/C
E4.19	W2	-	nr, ml/d	I/C
E4.20	W3	-	nr, ml/d	I/C
E4.21	W4	-	nr, ml/d	I/C
E4.22	Total numbers of works	T12, L17	nr, ml/d	C
E4.23	Total distribution input	T12, L16	nr, ml/d	C

Issues with data

E4.12 should equal 1.0
 E4.22 (Col 100) should equal E4.39 (Col 100)
 E4.29 should equal 1.0
 E4.40 should equal 1.0
 E4.45 should equal 0

Problem ?

N 100
 N 100
 N 100
 N 200
 N 100

Solution

No solution required
 No solution required
 No solution required
 No solution required
 No solution required

* This reference refers to JR00 whereas all other lines refer to JR01.

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220
Total Source Outputs

Comment Necessary Y/N	Comment
-----------------------	---------

Comment Necessary Y/N	Comment	General		Benchmarking A1		Benchmarking A2	
		A1	G	A1	G	A1	G
N	Consistent with distribution input confidence grade r A4	A2	G	A2	N	A2	G
N	Consistent with distribution input confidence grade r AX	A3	G	A3	N	A3	N
N	Consistent with distribution input confidence grade r B2	A4	N	A4	N	A4	N
N	Consistent with distribution input confidence grade r B3	G	G	AX	G	AX	G
N	Consistent with distribution input confidence grade r B4	B2	N	B2	N	B2	N
N	We have no bulk supply exports	B3	N	B3	N	B3	N
N	We have no bulk supply imports	B4	N	B4	N	B4	N
N		BX	G	BX	N	BX	N
N		C2	N	C2	N	C2	N
N		C3	N	C3	N	C3	N
N		C4	N	C4	N	C4	N
N		C5	N	C5	N	C5	N
N		CX	N	CX	N	CX	N
N		M	N	M	N	M	N
N		N	N	N	N	N	N
N		D3	N	D3	N	D3	N
N		D4	N	D4	N	D4	N
N		D5	N	D5	N	D5	N
N		D6	N	D6	N	D6	N
N		DX	N	DX	N	DX	N

120
Average Peak Ratio

Comment Necessary Y/N	Comment
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N 120 Consistent with distribu.

170
Average Pumping Head

Comment Necessary Y/N	Comment
-----------------------	---------

N Pumping head data not held on DX

220
Total volume Dist'n input MI/d

Comment Necessary Y/N	Comment
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N Consistent with distribution input confidence grade reported in A2.38
 N Consistent with distribution input confidence grade reported in A2.38
 N Consistent with distribution input confidence grade reported in A2.38
 N Consistent with distribution input confidence grade reported in A2.38
 N Consistent with distribution input confidence grade reported in A2.38
 N 1 input confidence grade reported in A2.38

ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E5: Large Water Treatment Works Information Database

For treatment works with a capacity greater than 25 Ml/d

Line Ref.	Description	Ofwat Ref	Units	Field Type	10		20		30		40		50		60		70		80		90		100		110		120		130		
					1	CG	2	CG	3	CG	4	CG	5	CG	6	CG	7	CG	8	CG	9	CG	10	CG	11	CG	12	CG	13	CG	
Works Size																															
E5.0	Name	-		I	Alnwickhill		Badentinan		Balmore		Blairlinnans		Bradán		Camphill		Camps		Carron Valley		Castle Moffat		Clatto		Daer		Fairmilehead		Forehill		
E5.1	Average day demand	-	Ml/d	I	47.4 D5		17.6 B3		249.8 A3		81.8 A1		101.2 C4		33.4 A4		28.7 A3		115.2 D4		30.0 D4		60.8 A1		113.2 B4		78.6 D4		16.2		
E5.2	Peak day demand	-	Ml/d	I	53.0 D5		18.9 B3		283.0 A3		86.0 A1		106.1 C4		37.9 A4		30.2 A3		123.4 D4		34.6 D4		64.5 A1		117.4 B4		91.3 D4		17.3		
E5.3	Works Capacity	-	Ml/d	I	74.4 A1		27.0 A1		364.0 A1		91.0 A1		120.0 A1		45.5 A1		34.0 A1		125.0 A1		32.0 A1		90.0 A1		138.0 A1		122.7 A1		28.6		
E5.4	Headroom	-	Ml/d	C	21.37548978 D5		8.080645161 B3		81 A3		5 A1		13.85714286 C4		7.561714286 A4		3.764285714 A3		1.550947368 D4		-2.58 D4		25.483 A1		20.57285714 B4		31.42 D4		11.33032258		
Raw Water Source																															
E5.5	Source type	-	Type	I	Impounding Re A1		Borehole & Spr A1		River And Burn A1		Lochs A1		Impounding Re A1		Impounding Re A1		Impounding Re A1		Impounding Re A1		Impounding Re A1		Impounding Re A1		Impounding Re A1		Impounding Re A1		Impounding Re A1		River And Burn
E5.6	Average turbidity	-	ntu	I	0.85 A1		0.66 A1		0.49 A1		12.76 A1		0.73 A1		1.1 A1		1.37 A1		5.29 A1		0.94 A1		1.59 A1		0.8 A1		0.85 A1		8.82		
E5.7	Peak turbidity	-	ntu	I	1.5 A1		1.67 A1		1.2 A1		64.4 A1		1.1 A1		2.2 A1		9 A1		19.5 A1		2 A1		7 A1		1.3 A1		2.9 A1		56.5		
E5.8	Average colour	-	hazen	I	22.57 A1		4.25 A1		18 A1		19.46 A1		57.58 A1		65.15 A1		23.76 A1		33.83 A1		55 A1		15.72 A1		41.24 A1		19.76 A1		44.63		
E5.9	Peak colour	-	hazen	I	31 A1		13 A1		25 A1		25 A1		79 A1		85 A1		36 A1		49 A1		79 A1		22 A1		53 A1		25 A1		82		
E5.10	Average parameter 'a'	-	µgFe/l	I	108.88 A1		46.83 A1		54.85 A1		541 A1		446.12 A1		248 A1		138.79 A1		353.42 A1		158.92 A1		165.04 A1		125.52 A1		162.84 A1		1025		
E5.11	Peak parameter 'a'	-	µgFe/l	I	180 A1		166 A1		70 A1		3056 A1		702 A1		303 A1		556 A1		947 A1		301 A1		534 A1		227 A1		328 A1		6527		
E5.12	Average parameter 'b'	-	µgMn/l	I	12.61 A1		2.77 A1		7.58 A1		241.55 A1		80.07 A1		25.81 A1		26.29 A1		113.61 A1		13.74 A1		36.63 A1		25.62 A1		20.74 A1		156.31		
E5.13	Peak parameter 'b'	-	µgMn/l	I	21.2 A1		22 A1		10.6 A1		1407.3 A1		459.8 A1		78 A1		109.7 A1		453.4 A1		32.4 A1		257.4 A1		80.8 A1		53 A1		1766.4		
E5.14	Cryptosporidium risk assessment	-	high/med/low	I	Med A1		High A1		Med A1		Med A1		Low A1		Med A1		Low A1		Low A1		Low A1		Med A1		Med A1		Med A1		High		
Compliance and Performance																															
E5.15	Coliform: samples exceeding compliance value	-	%	I	2.9 A1		0 A1		0 A1		0.27 A1		0 A1		0 A1		0 A1		0 A1		0.28 A1		0 A1		0.56 A1		0.54 A1		0		
E5.16	Turbidity: samples exceeding threshold value	-	%	I	0 A1		15.49 A1		0 A1		0 A1		0 A1		0 A1		1.64 A1		0 A1		4.13 A1		0.46 A1		0 A1		0 A1		0		
E5.17	THM: samples exceeding threshold value	-	%	I	0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0		
E5.18	Aluminium: samples exceeding threshold value	-	%	I	0 A1		0 A1		0 A1		0 A1		1.96 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0		
E5.19	Iron: samples exceeding threshold value	-	%	I	0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0		
E5.20	Manganese: samples exceeding threshold value	-	%	I	0 A1		0 A1		0 A1		0 A1		0.52 A1		24.14 A1		6.9 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0		
Processes																															
E5.21	Simple disinfection only	-	1/0	I	0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0		
E5.22	Simple disinfection and filtration (W1)	-	1/0	I	1 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0		
E5.23	Single stage physical or chemical treatment (W2)	-	1/0	I	0 A1		1 A1		1 A1		1 A1		0 A1		1 A1		0 A1		0 A1		0 A1		1 A1		0 A1		1 A1		1		
E5.24	More than one stage of treatment excl W4 (W3)	-	1/0	I	0 A1		0 A1		0 A1		0 A1		1 A1		1 A1		0 A1		1 A1		1 A1		1 A1		0 A1		1 A1		0		
E5.25	Complex treatment, including Microfiltration (W4)	-	1/0	I	0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0		
Miscellaneous Data																															
E5.26	Intake works on site	-	1/0	I	0 A1		1 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0		
E5.27	Raw water pumping on site	-	1/0	I	0 A1		1 A1		1 A1		0 A1		0 A1		0 A1		1 A1		0 A1		0 A1		1 A1		0 A1		0 A1		0		
E5.28	Treated water pumping on site	-	1/0	I	0 A1		0 A1		1 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		1 A1		1		
E5.29	Waterworks own sludge treatment on site	-	1/0	I	0 A1		0 A1		0 A1		1 A1		1 A1		1 A1		1 A1		1 A1		1 A1		1 A1		1 A1		0 A1		0		
E5.30	Waterworks sludge discharged off site	-	1/0	I	1 A1		0 A1		1 A1		0 A1		0 A1		0 A1		0 A1		0 A1		0 A1		1 A1		0 A1		1 A1		1		
Works Cost																															
E5.31	Employment direct costs	-	£'000	I	76 C4		131 C4		419 C4		116 C4		229 C4		395 C4		64 C4		138 C4		108 C4		194 C4		160 C4		126 C4		119		
E5.32	Power direct costs	-	£'000	I	16 C4		267 C4		372 C4		263 C4		60 C4		10 C4		40 C4		124 C4		249 C4		66 C4		-6 C4		30 C4		47		
E5.33	Hired and contracted services direct costs	-	£'000	I	47 C4		60 C4		164 C4		52 C4		78 C4		32 C4		17 C4		70 C4		22 C4		18 C4		60 C4		70 C4		8		
E5.34	Materials and consumables direct costs	-	£'000	I	64 C4		118 C4		569 C4		179 C4		415 C4		171 C4		87 C4		389 C4		120 C4		138 C4		284 C4		155 C4		130		
E5.35	Service charges SEPA direct costs	-	£'000	I	1 C4		2 C4		0 N		0 N		1 C4		0 N		0 N		16 C4		6 C4		0 N		3 C4		1 C4		0		
E5.36	Other direct costs	-	£'000	I	28 C4		21 C4		93 C4		23 C4		31 C4		12 C4		9 C4		32 C4		12 C4		39 C4		35 C4		46 C4		12		
E5.37	Total direct costs	-	£'000	C	232.307 C4		599.478 C4		1617.196 C4		633.047 C4		812.356 C4		619.902 C4		216.548 C4		768.458 C4		517.244 C4		454.923 C4		537.329 C4		429.08 C4		316.226		
E5.38	General and support expenditure	-	£'000	I	219 C4		202 C4		526 C4		134 C4		163 C4		66 C4		47 C4		173 C4		96 C4		264 C4		190 C4		368 C4		81		
E5.39	Functional Expenditure	-	£'000	C	451.116 C4		801.615 C4		2142.813 C4		767.18 C4		975.612 C4		686.333 C4		263.597 C4		941.066 C4		613.597 C4		718.919 C4		727.306 C4		797.338 C4		397.151		
E5.40	Estimated intake and raw water pumping direct costs	-	£'000	I	0 N		0 N		0 N		0 N		0 N		0 N		0 N		0 N		0 N		0 N		0 N		0 N		0		
E5.41	Estimated treated water pumping direct costs	-	£'000	I	0 N		0 N		0 N		0 N		0 N		0 N		0 N		0 N		0 N		0 N		0 N		0 N		0		
E5.42	Estimated waterworks sludge direct costs	-	£'000	I	97 C4		6 C4		54 C4		29 C4		40 C4		82 C4		39 C4		56 C4		72 C4		38 C4		77 C4		91 C4		17		

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	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
CG	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
B4	Glendevon	Glenfarg	Invercarnie	Inverness	Lintrathen	Mannofield	Marchbank	Milngavie	Muirdykes	Overton Greenock	Pateshill	Perth Gowans Terrace	Rosebery	Turret	Turriff
B4	79.5 A3	42.9 B3	49.8 B3	25.3 B3	24.9 A2	36.0 A2	46.0 B4	297.9 A3	42.7 A3	40.7 A3	14.2 D4	16.7 C4	31.4 C3	62.9 A4	28.3 D3
A1	84.5 A3	54.6 B3	57.9 B3	27.5 B3	27.9 A2	41.1 A2	53.1 B4	331.4 A3	55.3 A3	43.7 A3	16.6 D4	20.5 C4	35.9 C3	72.1 A4	30.7 D3
A1	91.0 A1	85.0 A1	70.0 A1	37.5 A1	42.0 A1	47.0 A1	50.0 A1	489.5 A1	60.0 A1	62.5 A1	32.0 A1	37.0 A1	40.0 A1	75.0 A1	33.0 A1
B4	6.485714286 A3	30.42857143 B3	12.10533333 B3	9.984677419 B3	14.08571429 A2	5.896428571 A2	-3.14 B4	158.1271429 A3	4.695714286 A3	18.8 A3	15.43 D4	16.5365 C4	4.149671233 C3	2.95 A4	2.281666667 D3
A1	Impounding Re A1	River And Burn A1	River And Burn A1	Lochs A1	Impounding Re A1	River And Burn A1	Impounding Re A1	River And Burn A1	Impounding Re A1	Impounding Re A1	River And Burn A1				
A1	1.41 A1	2.11 A1	1.35 A1	0.38 A1	2.87 A1	3.43 A1	3.32 A1	0 A1	2.35 A1	1.32 A1	1.72 A1	2.21 A1	3.67 A1	1.22 A1	2.05 A1
A1	5.01 A1	7.85 A1	17.3 A1	1.39 A1	13.3 A1	69.2 A1	18 A1	0 A1	4.2 A1	2.4 A1	5.9 A1	6.96 A1	31.4 A1	6.2 A1	4.47 A1
A1	36.88 A1	19.75 A1	24.04 A1	8.31 A1	20.25 A1	24.22 A1	21 A1	15.67 A1	44.19 A1	75.22 A1	116.15 A1	23.04 A1	36.61 A1	28.43 A1	33.64 A1
A1	46 A1	35 A1	49 A1	15 A1	28 A1	55 A1	26 A1	18 A1	60 A1	98 A1	162 A1	44 A1	47 A1	40 A1	65 A1
A1	185.48 A1	241.93 A1	116.19 A1	20.58 A1	247.36 A1	321.78 A1	277.92 A1	17 A1	291.77 A1	326 A1	414.81 A1	284.25 A1	260.3 A1	166.5 A1	227.07 A1
A1	1482 A1	2692 A1	576 A1	37 A1	964 A1	3856 A1	1607 A1	17 A1	374 A1	449 A1	593 A1	2038 A1	1746 A1	305 A1	409 A1
A1	61.06 A1	130.22 A1	18.81 A1	5.95 A1	59.55 A1	99.39 A1	41.98 A1	5.3 A1	53.46 A1	11.82 A1	21.67 A1	20.48 A1	49.19 A1	32.65 A1	8.29 A1
A1	645.1 A1	1831.4 A1	216.7 A1	22.9 A1	243.3 A1	1658.2 A1	287.8 A1	6.5 A1	173.7 A1	26.5 A1	49.5 A1	140.7 A1	498.4 A1	100.4 A1	22.5 A1
A1	Low A1	Med A1	Med A1	Low A1	Med A1	Med A1	Med A1	High A1	Low A1	Low A1	Low A1	Med A1	Med A1	Low A1	High A1
A1	0 A1	0 A1	0.55 A1	0 A1	0 A1	0.56 A1	0 A1	0 A1	0.28 A1	0 A1	0 A1	0 A1	0.28 A1	0 A1	0.82 A1
A1	0.76 A1	0.94 A1	0.94 A1	0 A1	0 A1	0 A1	2.45 A1	0 A1	0 A1	0 A1	0 A1	1.3 A1	0.61 A1	0 A1	0 A1
A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	3.85 A1	0 A1	0 A1	0 A1	3.85 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	0 A1	0 A1	0 A1	0 A1	0 A1	3.45 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	0 A1	0 A1	0 A1	0 A1	0 A1	9.68 A1	0 A1	0 A1	13.64 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	1 A1	0 A1	0 A1	0 A1	1 A1	0 A1	1 A1	0 A1	0 A1	1 A1	0 A1				
A1	0 A1	1 A1	1 A1	1 A1	0 A1	1 A1	0 A1	0 A1	1 A1	1 A1	1 A1	1 A1	1 A1	0 A1	1 A1
A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	1 A1	1 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	0 A1
A1	0 A1	0 A1	1 A1	1 A1	1 A1	1 A1	1 A1	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	1 A1
C4	231 C4	257 C4	282 C4	157 C4	138 C4	162 C4	80 C4	205 C4	188 C4	134 C4	96 C4	113 C4	181 C4	112 C4	137 C4
C4	39 C4	245 C4	234 C4	116 C4	2 C4	256 C4	102 C4	-86 C4	81 C4	40 C4	38 C4	89 C4	53 C4	14 C4	194 C4
C4	31 C4	31 C4	82 C4	43 C4	15 C4	14 C4	34 C4	223 C4	36 C4	34 C4	27 C4	15 C4	33 C4	47 C4	34 C4
C4	237 C4	142 C4	97 C4	135 C4	77 C4	175 C4	82 C4	388 C4	160 C4	195 C4	100 C4	57 C4	28 C4	181 C4	153 C4
N	0 N	3 C4	7 C4	2 C4	5 C4	0 N	4 C4	0 N	0 N	0 N	0 N	0 C4	3 C4	3 C4	0 N
C4	39 C4	37 C4	30 C4	29 C4	18 C4	20 C4	19 C4	125 C4	15 C4	16 C4	12 C4	16 C4	15 C4	19 C4	14 C4
C4	577.554 C4	715.19 C4	732.5 C4	482.377 C4	255.1 C4	627.4 C4	320.382 C4	854.015 C4	479.592 C4	419.992 C4	273.251 C4	288.899 C4	313.189 C4	376.098 C4	532.444 C4
C4	242 C4	230 C4	184 C4	297 C4	120 C4	134 C4	157 C4	654 C4	82 C4	88 C4	122 C4	109 C4	120 C4	114 C4	108 C4
C4	819.482 C4	945.185 C4	916.953 C4	779.566 C4	375.312 C4	761.748 C4	477.523 C4	1508.348 C4	561.202 C4	508.001 C4	394.801 C4	397.7 C4	433.459 C4	490.179 C4	640.932 C4
N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N
N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N
C4	37 C4	24 C4	56 C4	2 C4	13 C4	36 C4	44 C4	71 C4	27 C4	56 C4	22 C4	15 C4	53 C4	172 C4	28 C4

SECTION E : OPERATING COSTS AND EFFICIENCY

Table E5: Large Water Treatment Works Information Database

For treatment works with a capacity greater than 25 Ml/d

Line Ref.	Description	Ofwat Ref	Units	Field Type	10		20		30		40		50		60		70		80		90		100		110		120		130									
					Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment						
Works Size																																						
E5.0	Name	-		I																																		
E5.1	Average day demand	-	M/d	I	N	17.31% of reading N		N		N		N	11.54% of readings are eN	1.92% of readings are estir N		N	21.15% of reading N	32.69% of readings N		N	0% of readings are N	36.54% of readings N		N	0% of readings are N	36.54% of readings N		N	0% of readings are N	36.54% of readings N		N	Additional WTW.8.33					
E5.2	Peak day demand	-	M/d	I	N	17.31% of reading N		N		N		N	11.54% of readings are eN	1.92% of readings are estir N		N	21.15% of reading N	32.69% of readings N		N	0% of readings are N	36.54% of readings N		N	0% of readings are N	36.54% of readings N		N	0% of readings are N	36.54% of readings N		N	Additional WTW.8.33					
E5.3	Works Capacity	-	M/d	I	N			N		N		N				N					N																	
E5.4	Headroom	-	M/d	C	N	17.31% of reading N		N		N		N	11.54% of readings are eN	1.92% of readings are estir N		N	21.15% of reading N	32.69% of readings N		N	0% of readings are N	36.54% of readings N		N	0% of readings are N	36.54% of readings N		N	0% of readings are N	36.54% of readings N		N	Additional WTW.8.33					
Raw Water Source																																						
E5.5	Source type	-	Type	I	N			N		N		N				N					N																	
E5.6	Average turbidity	-	ntu	I	N			N		N		N				N					N																	
E5.7	Peak turbidity	-	ntu	I	N			N		N		N				N					N																	
E5.8	Average colour	-	hazen	I	N			N		N		N				N					N																	
E5.9	Peak colour	-	hazen	I	N			N		N		N				N					N																	
E5.10	Average parameter 'a'	-	µg/l	I	N			N		N		N				N					N																	
E5.11	Peak parameter 'a'	-	µg/l	I	N			N		N		N				N					N																	
E5.12	Average parameter 'b'	-	µgMn/l	I	N			N		N		N				N					N																	
E5.13	Peak parameter 'b'	-	µgMn/l	I	N			N		N		N				N					N																	
E5.14	Cryptosporidium risk assessment	-	high/med/low	I	N			N		N		N				N					N																	
Compliance and Performance																																						
E5.15	Coliform: samples exceeding compliance value	-	%	I	N			N		N		N				N					N																	
E5.16	Turbidity: samples exceeding threshold value	-	%	I	N			N		N		N				N					N																	
E5.17	THM: samples exceeding threshold value	-	%	I	N			N		N		N				N					N																	
E5.18	Aluminium: samples exceeding threshold value	-	%	I	N			N		N		N				N					N																	
E5.19	Iron: samples exceeding threshold value	-	%	I	N			N		N		N				N					N																	
E5.20	Manganese: samples exceeding threshold value	-	%	I	N			N		N		N				N					N																	
Processes																																						
E5.21	Simple disinfection only	-	1/0	I	N			N		N		N				N					N																	
E5.22	Simple disinfection and filtration (W1)	-	1/0	I	N			N		N		N				N					N																	
E5.23	Single stage physical or chemical treatment (W2)	-	1/0	I	N			N		N		N				N					N																	
E5.24	More than one stage of treatment excl W4 (W3)	-	1/0	I	N			N		N		N				N					N																	
E5.25	Complex treatment, including Microfiltration (W4)	-	1/0	I	N			N		N		N				N					N																	
Miscellaneous Data																																						
E5.26	Intake works on site	-	1/0	I	N			N		N		N				N					N																	
E5.27	Raw water pumping on site	-	1/0	I	N			N		N		N				N					N																	
E5.28	Treated water pumping on site	-	1/0	I	N			N		N		N				N					N																	
E5.29	Waterworks own sludge treatment on site	-	1/0	I	N			N		N		N				N					N																	
E5.30	Waterworks sludge discharged off site	-	1/0	I	N			N		N		N				N					N																	
Works Cost																																						
E5.31	Employment direct costs	-	£'000	I	N			Please refer to cor N		Please refer to com N		Please refer to com N		Please refer to comment N		Please refer to comment N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		
E5.32	Power direct costs	-	£'000	I	N			Please refer to cor N		Please refer to com N		Please refer to com N		Please refer to comment N		Please refer to comment N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		
E5.33	Hired and contracted services direct costs	-	£'000	I	N			Please refer to cor N		Please refer to com N		Please refer to com N		Please refer to comment N		Please refer to comment N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		
E5.34	Materials and consumables direct costs	-	£'000	I	N			Please refer to cor N		Please refer to com N		Please refer to com N		Please refer to comment N		Please refer to comment N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		
E5.35	Service charges SEPA direct costs	-	£'000	I	N			Please refer to cor N		Please refer to com N		Please refer to com N		Please refer to comment N		Please refer to comment N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		
E5.36	Other direct costs	-	£'000	I	N			Please refer to cor N		Please refer to com N		Please refer to com N		Please refer to comment N		Please refer to comment N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		
E5.37	Total direct costs	-	£'000	C	N			Please refer to cor N		Please refer to com N		Please refer to com N		Please refer to comment N		Please refer to comment N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		
E5.38	General and support expenditure	-	£'000	I	N			Please refer to cor N		Please refer to com N		Please refer to com N		Please refer to comment N		Please refer to comment N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		
E5.39	Functional expenditure	-	£'000	C	N			Please refer to cor N		Please refer to com N		Please refer to com N		Please refer to comment N		Please refer to comment N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		
E5.40	Estimated intake and raw water pumping direct costs	-	£'000	I	N			Please refer to cor N		Please refer to com N		Please refer to com N		Please refer to comment N		Please refer to comment N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		
E5.41	Estimated treated water pumping direct costs	-	£'000	I	N			Please refer to cor N		Please refer to com N		Please refer to com N		Please refer to comment N		Please refer to comment N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		
E5.42	Estimated waterworks sludge direct costs	-	£'000	I	N			Please refer to cor N		Please refer to com N		Please refer to com N		Please refer to comment N		Please refer to comment N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		Please refer to com N		

Prepared by: Michael Breingan..... Date: 16/06/06.....
 Checked by: Bill Nichols..... Date: 16/06/06.....
 Authorised by: Geoff Aitkenhead..... Date: 16/06/06.....

ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E6a: Water Explanatory Factors - Distribution

Line Ref.	Description	Ofwat Ref CMR 02	Units	Field Type	10	20	30	40	50	60	199				
					Report Year-1 2004-05										
					Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Total				
Area Data															
Name															
E6.0	Name	-		I							0				
E6.1	Annual average resident connected population	-	000	I/C							0				
E6.2	Total connected properties	-	000	I/C							0				
E6.3	Volume of water delivered to households	-	MI/d	I/C							0				
E6.4	Volume of water delivered to non-households	-	MI/d	I/C							0				
E6.5	Area	-	km 2	I/C							0				
E6.6	Not in use														
E6.7	Number of supply zones	-	nr	I/C							0				
Water main data															
E6.8	Total length of mains	-	km	I/C							0				
E6.9	Total length of unlined iron mains	-	km	I/C							0				
E6.10	Total length of mains > 300mm diameter	-	km	I/C							0				
E6.11	Water mains bursts	-	nr	I/C							0				
E6.12	Leakage level	-	MI/d	I/C							0				
E6.13	Properties reported for low pressure	-	nr	I/C							0				
Pumping Stations															
E6.14	Total number of pumping stations	-	nr	I/C							0				
E6.15	Total capacity of pumping stations	-	m3/d	I/C							0				
E6.15a	Total capacity of booster pumping stations	CM3, L18	Kw	I/C							0				
E6.16	Average pumping head	-	nr	I											
Service Reservoirs															
E6.17	Total number of service reservoirs	CM3, L13	nr	I/C							0				
E6.18	Total capacity of service reservoirs	CM3, L14	MI	I/C							0				
Water Towers															
E6.19	Total number of water towers	CM3, L15	nr	I/C							0				
E6.20	Total capacity of water towers	CM3, L16	MI	I/C							0				

Note: Water Distribution costs are reported on Table E1

Prepared by: Date:

Checked by: Date:

Authorised by: Date:

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E6b: Water Explanatory Factors - Distribution

Line Ref.	Description	Ofwat Ref CMR 02	Units	Field Type
-----------	-------------	---------------------	-------	------------

Area Data		Name		
E6.0	Name	-		I
E6.1	Annual average resident connected population	-	000	I/C
E6.2	Total connected properties	-	000	I/C
E6.3	Volume of water delivered to households	-	MI/d	I/C
E6.4	Volume of water delivered to non-households	-	MI/d	I/C
E6.5	Area	-	km 2	I/C
E6.6	Not in use			
E6.7	Number of supply zones	-	nr	I/C

Water main data				
E6.8	Total length of mains	-	km	I/C
E6.9	Total length of unlined iron mains	-	km	I/C
E6.10	Total length of mains > 300mm diameter	-	km	I/C
E6.11	Water mains bursts	-	nr	I/C
E6.12	Leakage level	-	MI/d	I/C
E6.13	Properties reported for low pressure	-	nr	I/C

Pumping Stations				
E6.14	Total number of pumping stations	-	nr	I/C
E6.15	Total capacity of pumping stations	-	m3/d	I/C
E6.15a	Total capacity of booster pumping stations	CM3, L18	Kw	I/C
E6.16	Average pumping head	-	nr	I

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

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

Note: Water Distribution costs are reported on Table E1

Prepared by: Michael Breingan.....	Date: 16/06/06.....
Checked by: Bill Nichols.....	Date: 16/06/06.....
Authorised by: Geoff Aitkenhead.....	Date: 16/06/06.....

Edition 2

10	20	30	40	50	60	199
Report Year 2005-06						
Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Total
CG	CG	CG	CG	CG	CG	CG

North West	North East	South East	South West			
356.66 B2	1151.38 B2	1033.26 B2	2402.92 B2			4944.222714 B2
190 B2	581 B2	515 B2	1175 B2			2462.437 B2
61.61 C4	197.81 C4	177.86 C4	414.95 C4			852.2270624 B3
29.51 B2	95.22 B2	88.39 B2	269.01 B2			482.1282937 B2
38868 A1	16918 A1	13205 A1	10985 A1			79976 A1
204 A1	38 A1	55 A1	77 A1			374 A1

10024 A2	11780 A2	9296 A2	15841 A2			46941.84455 A2
1298 B3	3115 B3	4264 B3	7630 B3			16307 B2
307 B2	1391 B2	1060 B2	2472 B2			5230.30939 B2
1500 A4	1257 A4	1421 A4	4535 A4			8713 A3
91 C4	162 C4	175 C4	676 C4			1104.052111 C4
2831 C4	4291 C4	1724 C4	4149 C4			12995 C4

209 B2	135 B2	78 B2	138 B2			560 B2
863861 C4	610631 C4	54380 C4	1535490 C4			3064362.9 C4
8209 C4	21078 C4	607 C4	22957 C4			52850.86 C4
22.99 C4	53.05 C4	3.24 C4	45.51 C3			38.39 C4

575 B2	437 B2	220 B2	339 B2			1571 B2
367.06 C3	1384.20 B3	527.04 B3	1797.59 B3			4075.877782 B3

7 B2	4 B2	0 A1	11 B2			22 B2
10.09 B3	0.67 B3	0 A1	25.04 B3			35.802 B3

ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E6b: Water Explanatory Factors - Distribution

Line Ref.	Description	Ofwat Ref	Units	Field Type
		CMR 02		

199	
Report Year 2005-06	

Comment Necessary Y/N	Comment
-----------------------	---------

Area Data		Name	
E6.0	Name	-	I
E6.1	Annual average resident connected population	-	000 I/C
E6.2	Total connected properties	-	000 I/C
E6.3	Volume of water delivered to households	-	Ml/d I/C
E6.4	Volume of water delivered to non-households	-	Ml/d I/C
E6.5	Area	-	km 2 I/C
E6.6	Not in use	-	
E6.7	Number of supply zones	-	nr I/C

Water main data			
E6.8	Total length of mains	-	km I/C
E6.9	Total length of unlined iron mains	-	km I/C
E6.10	Total length of mains > 300mm diameter	-	km I/C
E6.11	Water mains bursts	-	nr I/C
E6.12	Leakage level	-	Ml/d I/C
E6.13	Properties reported for low pressure	-	nr I/C

Pumping Stations			
E6.14	Total number of pumping stations	-	nr I/C
E6.15	Total capacity of pumping stations	-	m3/d I/C
E6.15a	Total capacity of booster pumping stations	CM3, L18	Kw I/C
E6.16	Average pumping head	-	nr I

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

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

General	
N	A1 G
N	A2 G
N	A3 G
N	A4 N
N	AX G
N	B2 G
N	B3 G
N	B4 N
N	BX G
N	C2 N
N	C3 N
N	C4 N
N	C5 N
N	Water Balance components must reconcile \CX N
N	Calculation from low confidence grade data. M N
N	N N
N	D3 N
N	D4 N
N	Extrapolation exercise to fill data gaps. All ca D5 N
N	Extrapolation exercise to fill data gaps. All ca D6 N
N	Pumping head data not held on corporate sy DX N

Issues with data	Problem ?	Solution
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E6.13 should equal B2.9	N	199	No solution required
E6.3 should equal A2.1+A2.5	Y	199	Please amend numbers so they reconcile
E6.2 should equal A1.69	Y	199	Please amend numbers so they reconcile
E6.1 should equal A1.71	Y	199	Please amend numbers so they reconcile

Note: Water Distribution costs are reported on Table E1

Prepared by: Michael Breingan.....	Date: 16/06/06.....
Checked by: Bill Nichols.....	Date: 16/06/06.....
Authorised by: Geoff Aitkenhead.....	Date: 16/06/06.....

Edition 2

ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E7: Wastewater Explanatory Factors - Sewerage

Line Ref.	Description	Ofwat Ref	Units	Field Type	10	20	30	40	50	60	70	80	199
					Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Total
					CG	CG	CG	CG	CG	CG	CG	CG	CG
Area Data					Name								
E7.0	Name	-	000	I									
E7.1	Annual average resident connected population	T17a, L1	000	I/C	NW 284.1 B2	NE 1074.3 B2	SE 982.9 B2	SW 2337.2 B2					4678.449 B2
E7.2	Annual average non- resident connected population	T17a, L2	000	I/C	26.9 C4	35.2 C4	28.1 C4	29.6 C4					119.7726667 C4
E7.3	Volume of sewage collected (daily average)	T17a, L3	M/d	I/C	321.4 C4	834.3 C4	711.6 C4	1996.3 C4					3863.660468 C4
E7.4	Total connected properties	T17a, L4	nr	I/C	141288 B2	537122 B2	490392 B2	1189267 B2					2358069 B2
E7.5	Area of Sewerage District	T17a, L5	km 2	I/C	38672 A1	16848 A1	13161 A1	10927 A1					79608 A1
E7.6	Drained Area	T17a, L6	km2	I/C	159 B2	381 B2	291 B2	752 B2					1581.597419 B2
E7.7	Annual Precipitation	T17a, L8	mm	I	1684 B3	1114 B3	1067 B3	1458 B3					1364 B3
Sewerage Data													
E7.8	Total length of sewer	T17a, L9	km	I/C	4627 B3	11803 B3	10320 B3	22201 B3					48951 B3
E7.9	Total length of lateral sewer	-	km	I/C	949 C4	4028 C4	3347 C4	7611 C4					15935 C4
E7.10	Length of combined sewer	T17a, L11	km	I/C	1810 B3	3872 B3	3350 B3	8249 B3					17280.57777 B3
E7.11	Length of separate stormwater sewer	T17a, L12	km	I/C	727 B3	1890 B3	1890 B3	3450 B3					7956.595681 B3
E7.12	Length of sewer > 1000 mm diameter	T17a, L13	km	I/C	17 B3	160 B3	199 B3	406 B3					781.2342979 B3
E7.13	Length of Critical Sewer	T17a, L14	km	I/C	1110 B3	2557 B3	2313 B3	4840 B3					10820.9665 B3
E7.14	Sewer Collapses	T17a, L15	nr	I/C	211 B4	409 B4	446 B4	1402 B4					2468 B4
Pumping Stations													
E7.15	Total number of pumping stations	T17a, L16	nr	I/C	533 B3	595 B3	268 B3	435 B3					1831 B3
E7.16	Total capacity of pumping stations (m ³ /d)	T17a, L17	m ³ /d	I/C	2904833 C4	3469932 C4	2718508 C4	5774342 C4					14867615 C4
E7.16a	Total capacity of pumping stations (kw)	CM6, L6	Kw	I/C	13940 C4	18332 C4	10221 C4	28297 C4					70790 C4
E7.17	Average pumping head	T17a, L18	m	I	6 C5	18 C5	10 C5	18 C5					15 C5
E7.18	Total number of combined pumping stations	T17a, L19	nr	I/C	354 B3	345 B3	182 B3	266 B3					1147 B3
E7.19	Total capacity of combined pumping stations	T17a, L20	m3/d	I/C	2165390 C4	2287627 C4	2172982 C4	4580004 C4					11206003 C4
E7.20	Total number of stormwater pumping stations	T17a, L21	nr	I/C	22 B4	12 B4	0 B4	8 B4					42 B4
E7.21	Total capacity of stormwater pumping stations	T17a, L22	m3/d	I/C	257830 B4	235507 B4	0 B4	352518 B4					845855 B4
E7.22	Number of combined sewer overflows	T17a, L23	nr	I/C	706 B4	1079 B4	643 B4	1472 B4					3900 B4
E7.23	Number of combined sewer overflows (screened)	T17a, L24	nr	I/C	133 B4	211 B4	170 B4	382 B4					896 B4

Note: Sewerage costs are reported on Table E2

Prepared by: Michael Breingan..... Date: 18/09/06.....
 Checked by: Bill Nichols..... Date: 18/09/06.....
 Authorised by: Geoff Aitkenhead..... Date: 18/09/06.....

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E7: Wastewater Explanatory Factors - Sewerage

Line Ref.	Description	O/wat Ref	Units	Field Type	10		20		30		40		50		60		70		80		199				
					Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Total												
					Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment			
Area Data																									
E7.0	Name			I																					
E7.1	Annual average resident connected population	T17a_L1	000	IVC	N	Improvement in the d	Improvement in the N	Improvement in the N	Improvement in t	#N/A	#N/A	N	Improvement in the definition of General	Benchmarking A1	Benchmarking A2	Benchmarking B2									
E7.2	Annual average non-resident connected population	T17a_L2	000	IVC	N	There is no Scottish I	There is no ScottishN	There is no ScottishN	There is no Scot	#N/A	#N/A	N	There is no Scottish Water corpA1	A1	A1	A1	A1								
E7.3	Volume of sewage collected (daily average)	T17a_L3	M/d	IVC	N	The assessment of t#N	The assessment of N	The assessment of N	The assessment	#N/A	#N/A	N	The assessment of the volume A2	A2	A2	A2	A2								
E7.4	Total connected properties	T17a_L4	nr	IVC	N					#N/A	#N/A	N	A3	A3	A3	A3	A3								
E7.5	Area of Sewerage District	T17a_L5	km 2	IVC	N					#N/A	#N/A	N	A4	A4	A4	A4	A4								
E7.6	Drained Area	T17a_L6	km2	IVC	N	The drained areas ar	The drained areas tN	The drained areas tN	The drained areas	#N/A	#N/A	N	The drained areas are adjusted AK	AK	AK	AK	AK								
E7.7	Annual Precipitation	T17a_L8	mm	I	N					#N/A	#N/A	N	B2	B2	B2	B2	B2								
Sewerage Data																									
E7.8	Total length of sewer	T17a_L9	km	IVC	N	Uncertainties exist in N	Uncertainties exist tN	Uncertainties exist tN	Uncertainties ex	#N/A	#N/A	N	Uncertainties exist in the assessBX	BX	BX	BX	BX								
E7.9	Total length of lateral sewer		km	IVC	N	Uncertainties exist in N	Uncertainties exist tN	Uncertainties exist tN	Uncertainties ex	#N/A	#N/A	N	Uncertainties exist in the assessC2	C2	C2	C2	C2								
E7.10	Length of combined sewer	T17a_L11	km	IVC	N					#N/A	#N/A	N	C3	C3	C3	C3	C3								
E7.11	Length of separate stormwater sewer	T17a_L12	km	IVC	N					#N/A	#N/A	N	C4	C4	C4	C4	C4								
E7.12	Length of sewer > 1000 mm diameter	T17a_L13	km	IVC	N					#N/A	#N/A	N	C5	C5	C5	C5	C5								
E7.13	Length of Critical Sewer	T17a_L14	km	IVC	N	The length of critical tN	The length of critica tN	The length of critica tN	The length of crit	#N/A	#N/A	N	The length of critical sewer has CX	CX	CX	CX	CX								
E7.14	Sewer Collapses	T17a_L15	nr	IVC	N	The SW corporate syN	The SW corporate tN	The SW corporate tN	The SW corpora	#N/A	#N/A	N	The SW corporate systems for tM	M	M	M	M								
Pumping Stations																									
E7.15	Total number of pumping stations	T17a_L16	nr	IVC	N	Data improvement is N	Data improvement tN	Data improvement tN	Data improve	#N/A	#N/A	N	Data improvement is ongoing to D3	D3	D3	D3	D3								
E7.16	Total capacity of pumping stations (m³/d)	T17a_L17	m³/d	IVC	N	Data improvement is N	Data improvement tN	Data improvement tN	Data improve	#N/A	#N/A	N	Data improvement is ongoing to D4	D4	D4	D4	D4								
E7.16a	Total capacity of pumping stations (kw)	OM6_L6	kw	IVC	N	Data improvement is N	Data improvement tN	Data improvement tN	Data improve	#N/A	#N/A	N	Data improvement is ongoing to D5	D5	D5	D5	D5								
E7.17	Average pumping head	T17a_L18	m	I	N	Data improvement is N	Data improvement tN	Data improvement tN	Data improve	#N/A	#N/A	N	Data improvement is ongoing to D6	D6	D6	D6	D6								
E7.18	Total number of combined pumping stations	T17a_L19	nr	IVC	N					#N/A	#N/A	N	Data improvement is ongoing to DX	DX	DX	DX	DX								
E7.19	Total capacity of combined pumping stations	T17a_L20	m³/d	IVC	N	Data improvement is N	Data improvement tN	Data improvement tN	Data improve	#N/A	#N/A	N	Data improvement is ongoing to develop the pumping stations data in the asset inventory												
E7.20	Total number of stormwater pumping stations	T17a_L21	nr	IVC	N	Data improvement is N	Data improvement tN	Data improvement tN	Data improve	#N/A	#N/A	N	Data improvement is ongoing to develop the pumping stations data in the asset inventory												
E7.21	Total capacity of stormwater pumping stations	T17a_L22	m³/d	IVC	N	Data improvement is N	Data improvement tN	Data improvement tN	Data improve	#N/A	#N/A	N	Data improvement is ongoing to develop the pumping stations data in the asset inventory												
E7.22	Number of combined sewer overflows	T17a_L23	nr	IVC	N	The assigned confideN	The assigned conficN	The assigned conficN	The assigned co	#N/A	#N/A	N	The assigned confidence grade for the number of overflows is reported with a potential 10 to 25% error as the future programme of Drainage Area Studies is expected to report further overflows although the estimation of how many this may be uncertain.												
E7.23	Number of combined sewer overflows (screened)	T17a_L24	nr	IVC	N	Similarly to the previoN	Similarly to the prevN	Similarly to the prevN	Similarly to the p	#N/A	#N/A	N	Similarly to the previous Line the number of overflows which are screened is uncertain as the overall number of overflows is uncertain.												

Issues with data	Problem ?	Solution
E7.1 should equal A3.83	N	199 No solution required

Note: Sewerage costs are reported on Table E2

Prepared by: Michael Breingan.....Date: 18/09/06

Checked by: Bill Nichols.....Date: 18/09/06

Authorised by: Geoff Aitkenhead.....Date: 18/09/06

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E8: Wastewater Explanatory Factors - Sewage Treatment Works

Line Ref.	Description	Ofwat Ref	Units	Field Type	10	20	30	40	50	60	70	80	90	100	110	199	General												
					Septic Tanks		Primary		Sec Activated Sludge		Sec biological		Tertiary A1		Tertiary A2			Tertiary B1		Tertiary B2		Sea Preliminary		Sea Screened		Sea Unscreened		Total	
					Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment		Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment
Numbers																													
EB.1	Size Band 0		-	nr	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	A1	G			
EB.2	Size Band 1		1176. L1	nr	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	A2	G		
EB.3	Size Band 2		1176. L2	nr	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	A3	G		
EB.4	Size Band 3		1176. L3	nr	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	A4	N		
EB.5	Size Band 4		1176. L4	nr	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	AX	G		
EB.6	Size Band 5		1176. L5	nr	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	B2	G		
EB.7	Size Band 6 (Large Works)		1176. L6	nr	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	B3	G		
EB.8	Total Sewage Treatment Works		1176. L7	nr	C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	B4	N		
EB.9	Small Sewage treatment works with ammonia consent 5 - 10 mg		1176. LB	nr	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	BX	G		
EB.10	Small Sewage treatment works with ammonia consent <= 5 mg/l		1176. LB	nr	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C2	N		
EB.11	Size Band 0		-	kg BOD/day	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	C5	N		
EB.12	Size Band 1		1176. L1	kg BOD/day	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	CX	N		
EB.13	Size Band 2		1176. L2	kg BOD/day	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	M	N		
EB.14	Size Band 3		1176. L3	kg BOD/day	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	D3	N		
EB.15	Size Band 4		1176. L4	kg BOD/day	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	DA	N		
EB.16	Size Band 5		1176. L5	kg BOD/day	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	D5	N		
EB.17	Size Band 6 (large works)		1176. L6	kg BOD/day	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	D6	N		
EB.18	Total Load (average)		1176. L7	kg BOD/day	C	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	DX	N		
EB.19	Small Sewage treatment works with ammonia consent 5 - 10 mg		1176. LB	kg BOD/day	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
EB.20	Small Sewage treatment works with ammonia consent <= 5 mg/l		1176. LB	kg BOD/day	IC	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
Compliance																													
EB.21	Size Band 0		-	%	IC	n/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
EB.22	Size Band 1		1176. L1	%	IC	n/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
EB.23	Size Band 2		1176. L2	%	IC	n/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
EB.24	Size Band 3		1176. L3	%	IC	n/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
EB.25	Size Band 4		1176. L4	%	IC	n/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
EB.26	Size Band 5		1176. L5	%	IC	n/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
EB.27	Size Band 6 (large works)		1176. L6	%	IC	n/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
EB.28	Average compliance by works - all sizes		1176. L7	%	IC	n/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
EB.29	Small Sewage treatment works with ammonia consent 5 - 10 mg		1176. LB	%	IC	n/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
EB.30	Small Sewage treatment works with ammonia consent <= 5 mg/l		1176. LB	%	IC	n/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
Costs																													
EB.31	Direct costs for works in size band 0		-	£000	IC	N	Please refer to N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	
EB.32	Direct costs for works in size band 1		-	£000	IC	N	Please refer to N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	
EB.33	Direct costs for works in size band 2		-	£000	IC	N	Please refer to N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	
EB.34	Direct costs for works in size band 3		-	£000	IC	N	Please refer to N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	
EB.35	Direct costs for works in size band 4		-	£000	IC	N	Please refer to N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	
EB.36	Direct costs for works in size band 5		-	£000	IC	N	Please refer to N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	
EB.37	Direct costs for works in size band 6 (large works)		-	£000	IC	N	Please refer to N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	
EB.38	Direct costs for all sewage treatment works		-	£000	C	N	Please refer to N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	
EB.39	General and support expenditure		-	£000	IC	N	Please refer to N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	
EB.40	Functional expenditure		-	£000	C	N	Please refer to N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	
EB.41	Power costs		-	£000	IC	N	Please refer to N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	
EB.42	Service charges SEPA		-	£000	IC	N	Please refer to N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	Please refer to N	Please refer to c/N	

Issues with data	Problem ?	Solution
EB.18 should equal A4.34*(1000/365)	238183 241667	Please amend numbers if they do not reconcile

Prepared by: Michael Breingan..... Date: 16/06/06
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 Authorised by: Geoff Aitkenhead..... Date: 16/06/06

ANNUAL RETURN INFORMATION REQUIREMENT

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E9: Large Sewage Treatment Works Information Database

Line Ref.	Description	Ofwat Ref	Units	Field Type	10	20	30	40	50	60	70	80	90	100	110	120	130	
					1	2	3	4	5	6	7	8	9	10	11	12	13	
Works Size					CG	CG	CG	CG	CG	CG								
E9.0	Name	-	Name	I	Allers	Alloa	Ardoch	Bo'ness	Carbarns	Dalderse	Daldowie	Dalmarnock	Dunfermline	Dunnswold	Erskine	Galashiels	Hamilton	
E9.1	Annual average resident connected population	T17b, L2	000	I	28.5 B3	32.4 B3	46.8 B3	14.6 B3	41.2 B3	67.1 B3	190.8 B3	134.4 B3	26.8 B3	28.2 B3	63.1 B3	14.7 B3	51.8	
E9.2	Annual average non-resident connected population	T17b, L3	000	I	0.0 B3	0.6 B3	0.4 B3	0.1 B3	0.1 B3	0.6 B3	0.8 B3	0.6 B3	0.2 B3	0.2 B3	0.3 B3	0.3 B3	0.3	
E9.3	Trade effluent load received by works	T17b, L4	kg/COD/day	I	1729 B4	650 B4	871 B4	1179 B4	434 B4	1357 B4	8030 B4	17772 B4	423 B4	229 B4	591 B4	1221 B4	692	
E9.4	Tanker load received by works	T17b, L5	kg/COD/day	I	0 B4	2 B4	12 B4	246 B4	0 B4	91 B4	0 B4	0 B4	0 B4	0 B4	0 B4	9439 B4	0	
E9.5	Population equivalent of total load received	T17b, L6	000	I	46.9 B3	42.3 B3	63.4 B3	25.7 B3	49.8 B3	92.5 B3	294.7 B3	312.7 B3	38.0 B3	34.4 B3	76.9 B3	40.1 B3	68.4	
Treatability																		
E9.6	Biological Oxygen Demand (BOD5) of influent	T17b, L7	mg/l	I	138 B3	119 B3	129 A2	0 M	126 A2	130 B3	80 B3	96 B3	125 A2	185 A2	30 A2	161 B4	113	
E9.7	Chemical Oxygen Demand (COD) of influent	T17b, L8	mg/l	I	332 B3	379 B3	289 A2	0 M	317 A2	466 B3	211 B3	259 B3	298 A2	516 A2	107 A2	504 B4	289	
E9.8	Total Organic Carbon (TOC) of influent	T17b, L9	mg/l	I	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0	
E9.9	Suspended solids (SS) of influent	T17b, L10	mg/l	I	174 B4	286 B4	145 A2	0 M	122 A2	52 B4	103 B4	103 B4	163 A2	206 A2	32 A2	222 B4	136	
E9.10	Ammoniacal Nitrogen (NH3) of influent	T17b, L11	mg/l	I	20 B4	14 B4	16 B4	0 N	16 B4	15 B4	14 B4	14 B4	18 A2	25 B4	8 A2	18 B4	30	
Compliance																		
E9.11	Suspended solids consent	T17b, L12	mg/l	I	100 A1	0 N	40 A1	0 N	100 A1	0 N	30 A1	30 A1	0 N	15 A1	30 A1	35 A1	100	
E9.12	BOD consent	T17b, L13	mg/l	I	20 A1	25 A1	25 A1	0 N	15 A1	20 A1	15 A1	25 A1	25 A1	10 A1	25 A1	25 A1	20	
E9.13	COD consent	T17b, L14	mg/l	I	125 A1	125 A1	125 A1	125 A1	125									
E9.14	Ammonia consent	T17b, L15	mg/l	I	5 A1	30 A1	0 N	0 N	10 A1	25 A1	5 A1	4 A1	0 N	5 A1	0 N	15 A1	5	
E9.15	Phosphate consent	T17b, L16	mg/l	I	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0	
E9.16	Compliance with effluent consent standard	T17b, L17	%	I	95.8 A1	100 A1	89.1 A1	0 N	97 A1	91.5 A1	98.7 A1	92 A1	100 A1	100 A1	100 A1	100 A1	66.7	
Flow																		
E9.17	Average daily flow in dry weather	T17b, L18	Ml/d	I	109 B4	18 C4	23 B4	6 B4	18 B4	33 C4	216 C5	89 B4	18 B4	10 C4	41 C4	4 B4	22	
E9.18	Ratio of daily maximum to to minimum flow	T17b, L19	nr	I	2.5 C4	3 C4	4.3 B4	1.6 B4	1.3 B4	2.5 C5	2 C5	1.25 B4	2.9 B4	1.4 C4	0 M	1.6 B4	2	
Treatment Works Category																		
E9.19	Primary	T17b, L20	1/0	I	1 A1	1 A1	1 A1	1 A1	1									
E9.20	Secondary activated sludge	T17b, L21	1/0	I	1 A1	1 A1	1 A1	0 A1	1									
E9.21	Secondary biological	T17b, L22	1/0	I	0 A1	0 A1	0 A1	1 A1	0									
E9.22	Tertiary A1	T17b, L23	1/0	I	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0						
E9.23	Tertiary A2	T17b, L24	1/0	I	0 A1	0 A1	0 A1	0 A1	0									
E9.24	Tertiary B1	T17b, L25	1/0	I	0 A1	0 A1	0 A1	1 A1	0									
E9.25	Tertiary B2	T17b, L26	1/0	I	0 A1	0 A1	0 A1	0 A1	0									
Miscellaneous Data																		
E9.26	Distance to next works	T17b, L27	km	I	4 B2	3 B2	7 B2	5 B2	2 B2	6 B2	5 B2	7 B2	2 B2	4 B2	3 B2	4 B2	2	
E9.27	Sea outfalls at works	T17b, L28	1/0	I	0 A1	0 A1	1 A1	1 A1	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0	
E9.28	Terminal Pumping costs	T17b, L29	1/0	I	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	1 A1	1 A1	0 A1	0 A1	0 A1	0	
E9.29	Own sludge	T17b, L30	1/0	I	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0					
E9.30	Own sludge costs	T17b, L31	1/0	I	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0	
E9.31	Sludge centre	T17b, L32	1/0	I	0 A1	1 A1	0 A1	0 A1	1 A1	0 A1	0 A1	1 A1	0					
E9.32	Sludge centre costs	T17b, L33	1/0	I	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0	
Works Cost																		
E9.33	Employment costs	-	£'000	I	73 B3	63 B3	82 B3	58 B3	76 B3	90 B3	133 B3	289 B3	40 B3	96 B3	31 B3	21 B3	85	
E9.34	Power costs	T17b, L35	£'000	I	42 B3	105 B3	85 B3	34 B3	92 B3	131 B3	367 B3	353 B3	93 B3	65 B3	123 B3	83 B3	79	
E9.35	Hired and contracted services	-	£'000	I	3 B3	15 B3	6 B3	6 B3	5 B3	7 B3	9 B3	27 B3	2 B3	4 B3	0 B3	10 B3	23	
E9.36	Materials and consumables	-	£'000	I	0 B3	0 BX	25 B3	2 B3	1 B3	25 B3	2 B3	3 B3	31 B3	3 B3	19 B3	15 B3	2	
E9.37	Service charges SEPA	-	£'000	I	37 B3	2 B3	29 B3	18 B3	39 B3	152 B3	87 B3	79 B3	21 B3	39 B3	33 B3	21 B3	23	
E9.38	Other direct costs	-	£'000	I	8 B3	22 B3	14 B3	0 B3	3 B3	14 B3	51 B3	44 B3	31 B3	5 B3	0 B3	2 B3	44	
E9.39	Total direct costs	T17b, L34	£'000	C	163.393 B3	206.374 B3	240.433 B3	118.023 B3	215.002 B3	419.918 B3	648.278 B3	794.219 B3	216.821 B3	211.344 B3	206.541 B3	151.816 B3	255.535	
E9.40	General and support expenditure	T17b, L37	£'000	I	30 B3	28 B3	40 B3	22 B3	32 B3	62 B3	115 B3	191 B3	20 B3	21 B3	47 B3	11 B3	44	
E9.41	Functional Expenditure	T17b, L38	£'000	C	192.98 B3	233.889 B3	280.139 B3	140.434 B3	247.277 B3	482.029 B3	763.744 B3	984.743 B3	236.707 B3	232.494 B3	253.239 B3	163.293 B3	299.131	
E9.42	Estimated terminal pumping station costs	T17b, L39	£'000	I	0 N	0 N	9 C3	0 N	0 N	0 N	0 N	56 C3	16 N	0 N	0 N	0 N	0	
E9.43	Estimated sludge costs	T17b, L40	£'000	I	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0	

Prepared by: Michael Breingan.....Date: 16/06/06.....
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	140	150	160	170	180	190	200	210	220
	14	15	16	17	18	19	20	21	22
CG	CG	CG	CG	CG	CG	CG	CG	CG	CG
	Ironmill Bay	Kinneil Kerse	Kirkcaldy	Laighpark (Paisley)	Perth	Philipshill	Sheidhall	Stirling	Troqueer
B3	52.5 B3	33.7 B3	48.6 B3	104.2 B3	48.5 B3	42.5 B3	331.8 B3	43.8 B3	25.5 B3
B3	0.8 B3	0.1 B3	0.6 B3	0.6 B3	1.3 B3	0.4 B3	1.3 B3	1.0 B3	0.9 B3
B4	0 B4	1720 B4	2108 B4	10654 B4	1094 B4	1905 B4	21018 B4	5348 B4	243 B4
B4	0 B4	0 B4	0 B4	0 B4	13730 B4	0 B4	2640 B4	27 B4	15380 B4
B3	60.9 B3	52.2 B3	74.8 B3	218.9 B3	88.0 B3	68.3 B3	562.1 B3	98.4 B3	54.8 B3
A2	131 A2	107 A2	105 A2	108 B3	142 A2	89 A2	144 A2	167 B3	95 A2
A2	390 A2	330 A2	323 A2	294 B3	385 A2	244 A2	537 A2	424 B3	263 A2
N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N
A2	262 A2	197 B3	175 A2	175 B4	291 A2	135 A2	181 A2	465 B4	67 A2
A2	19 A2	19 B3	18 A2	15 B4	24 A2	24 B4	8 A2	27 B4	20 B3
A1	0 N	0 N	0 N	30 A1	0 N	15 A1	30 A1	0 N	30 A1
A1	25 A1	25 A1	25 A1	15 A1	75 A1	10 A1	20 A1	25 A1	20 A1
A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1
A1	30 A1	15 A1	0 N	20 A1	30 A1	30 A1	20 A1	0 N	0 N
N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N
A1	100 A1	100 A1	100 A1	98.6 A1	100 A1	91.5 A1	85 A1	76.2 A1	95.8 A1
B4	9 B4	20 B4	14 B4	63 C5	39 B4	25 B4	205 B4	22 C4	11 B4
C4	1.9 B4	3.4 B4	5 B4	3 C5	1.7 B4	1.5 C4	2 C5	5.8 C4	3.3 B4
A1	1 A1	0 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1
A1	1 A1	1 A1	0 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1
A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
B2	1 B2	4 B2	5 B2	3 B2	4 B2	4 B2	5 B2	3 B2	4 B2
A1	1 A1	1 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
A1	0 A1	0 A1	1 A1	0 A1	1 A1	0 A1	1 A1	0 A1	0 A1
A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1
N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N
A1	0 A1	1 A1	1 A1	0 A1	1 A1	0 A1	0 A1	0 A1	1 A1
N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N
B3	31 B3	55 B3	90 B3	113 B3	58 B3	93 B3	326 B3	5 B3	26 B3
B3	54 B3	117 B3	148 B3	202 B3	71 B3	100 B3	523 B3	144 B3	92 B3
B3	18 B3	11 B3	51 B3	32 B3	14 B3	5 B3	48 B3	1 B3	9 B3
B3	6 B3	16 B3	45 B3	3 B3	16 B3	0 B3	8 B3	1 B3	16 B3
B3	16 B3	151 B3	38 B3	298 B3	12 B3	36 B3	226 B3	34 B3	21 B3
B3	7 B3	2 B3	40 B3	53 B3	46 B3	17 B3	79 B3	2 B3	112 B3
B3	132.863 B3	351.674 B3	413.262 B3	700.113 B3	215.685 B3	250.692 B3	1210.33 B3	185.757 B3	276.862 B3
B3	37 B3	32 B3	86 B3	135 B3	52 B3	45 B3	345 B3	64 B3	33 B3
B3	169.827 B3	383.836 B3	499.473 B3	835.532 B3	268.169 B3	296.109 B3	1555.519 B3	249.813 B3	309.988 B3
N	0 N	0 N	26 N	0 N	27 C3	0 N	38 C3	0 N	0 N
N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E9: Large Sewage Treatment Works Information Database

Line Ref.	Description	Ofwat Ref	Units	Field Type	10		20		30		40		50		60		70		80		90		100			
					1	2	3	4	5	6	7	8	9	10	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment
Works Size					Name					Y/N		Y/N		Y/N		Y/N		Y/N		Y/N		Y/N		Y/N		
E9.0	Name	-		I																						
E9.1	Annual average resident connected population	T17b. L2	000	I	N																					
E9.2	Annual average non-resident connected population	T17b. L3	000	I	N																					
E9.3	Trade effluent load received by works	T17b. L4	kg/COD/day	I	N		Data capture is still sut N		Data capture is still si N		Data capture is still N		Data capture is still si N		Data capture is still N		Data capture is still N		Data capture is still N		Data capture is still si N		Data capture is still N		Data capture is still N	
E9.4	Tanker load received by works	T17b. L5	kg/COD/day	I	N		Data capture is still sut N		Data capture is still si N		Data capture is still N		Data capture is still si N		Data capture is still N		Data capture is still N		Data capture is still N		Data capture is still si N		Data capture is still N		Data capture is still N	
E9.5	Population equivalent of total load received	T17b. L6	000	I	N																					
Treatability																										
E9.6	Biological Oxygen Demand (BOD5) of influent	T17b. L7	mg/l	I	N							No sample data are a N														
E9.7	Chemical Oxygen Demand (COD) of influent	T17b. L8	mg/l	I	N							No sample data are a N														
E9.8	Total Organic Carbon (TOC) of influent	T17b. L9	mg/l	I	N		Scottish Water does not N		Scottish Water does not N		Scottish Water does not N		Scottish Water does not N		Scottish Water does not N		Scottish Water does not N		Scottish Water does not N		Scottish Water does not N		Scottish Water does not N		Scottish Water does not N	
E9.9	Suspended solids (SS) of influent	T17b. L10	mg/l	I	N		More recent data not a N		More recent data not a N		More recent data not a N		More recent data not a N		More recent data not a N		More recent data not a N		More recent data not a N		More recent data not a N		More recent data not a N		More recent data not a N	
E9.10	Ammoniacal Nitrogen (NH3) of influent	T17b. L11	mg/l	I	N		More recent data not a N		More recent data not a N		More recent data not a N		There is no ammonia N		More recent data not a N		More recent data not a N		More recent data not a N		More recent data not a N		More recent data not a N		More recent data not a N	
Compliance																										
E9.11	Suspended solids consent	T17b. L12	mg/l	I	N				There is no suspended N				There is no suspended N				There is no suspended N								There is no suspended N	
E9.12	BOD consent	T17b. L13	mg/l	I	N								There is no BOD star N													
E9.13	COD consent	T17b. L14	mg/l	I	N																					
E9.14	Ammonia consent	T17b. L15	mg/l	I	N							There is no ammonia N													There is no ammonia N	
E9.15	Phosphate consent	T17b. L16	mg/l	I	N		There is no phosphate N		There is no phosphate N		There is no phosphate N		There is no phosphate N		There is no phosphate N		There is no phosphate N		There is no phosphate N		There is no phosphate N		There is no phosphate N		There is no phosphate N	
E9.16	Compliance with effluent consent standard	T17b. L17	%	I	N								Works not sampled th N													
Flow																										
E9.17	Average daily flow in dry weather	T17b. L18	Ml/d	I	N		This is the confidence N		Data not available so N		This is the confidence N		This is the confidence N		This is the confidence N		Data not available N		2006 figure question N		This is the confidence N		This is the confidence N		This is the confidence N	
E9.18	Ratio of daily maximum to to minimum flow	T17b. L19	nr	I	N		Data not available so 2N		Data not available so N		This is the confidence N		This is the confidence N		This is the confidence N		No data available N		No data available for N		This is the confidence N		This is the confidence N		This is the confidence N	
Treatment Works Category																										
E9.19	Primary	T17b. L20	1/0	I	N																					
E9.20	Secondary activated sludge	T17b. L21	1/0	I	N																					
E9.21	Secondary biological	T17b. L22	1/0	I	N																					
E9.22	Tertiary A1	T17b. L23	1/0	I	N																					
E9.23	Tertiary A2	T17b. L24	1/0	I	N																					
E9.24	Tertiary B1	T17b. L25	1/0	I	N																					
E9.25	Tertiary B2	T17b. L26	1/0	I	N																					
Miscellaneous Data																										
E9.26	Distance to next works	T17b. L27	km	I	N																					
E9.27	Sea outfalls at works	T17b. L28	1/0	I	N																					
E9.28	Terminal Pumping costs	T17b. L29	1/0	I	N																					
E9.29	Own sludge	T17b. L30	1/0	I	N																					
E9.30	Own sludge costs	T17b. L31	1/0	I	N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N	
E9.31	Sludge centre	T17b. L32	1/0	I	N																					
E9.32	Sludge centre costs	T17b. L33	1/0	I	N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N	
Works Cost																										
E9.33	Employment costs	-	£'000	I	N																					
E9.34	Power costs	T17b. L35	£'000	I	N																					
E9.35	Hired and contracted services	-	£'000	I	N																					
E9.36	Materials and consumables	-	£'000	I	N																					
E9.37	Service charges SEPA	-	£'000	I	N																					
E9.38	Other direct costs	-	£'000	I	N																					
E9.39	Total direct costs	T17b. L34	£'000	C	N																					
E9.40	General and support expenditure	T17b. L37	£'000	I	N																					
E9.41	Functional Expenditure	T17b. L38	£'000	C	N																					
E9.42	Estimated terminal pumping station costs	T17b. L39	£'000	I	N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N	
E9.43	Estimated sludge costs	T17b. L40	£'000	I	N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N		Please refer to comment N	

Prepared by: Michael Breingan..... Date: 16/06/06.....
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 Authorised by: Geoff Aitkenhead..... Date: 16/06/06.....

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E10: Wastewater Explanatory Factors - Sludge Treatment and Disposal

Line Ref.	Description	Ofwat Ref	Units	Field Type	Disposal category										199 Total CG											
					10 Farmland Untreated		11 Farmland Conventional		12 Farmland Advanced		20 Landfill		30 Incineration			31 Composted		32 Land Reclamation		40 Not in use		50 Other				
					CG		CG		CG		CG		CG			CG		CG		CG		CG		CG		
Sludge volumes																										
E10.1	Resident population served	T17g, L1	0	I	0	B3	364	B3	264	B3	141	B3	1,303	B3	76	B3	487	B3			0	B3	2633.929169	B3		
E10.2	Amount of sewage sludge	T17g, L2	tds	I	0	B3	9.631	B3	3.805	B3	2.232	B3	0	B3	1.51	B3	9.597	B3			0	B3	26.775	B3		
Sludge Treatment and Disposal cost:																										
E10.3	Employment costs	T17g, L3	£000	I	0	CX	846.552	C4	181.702	C4	434.162	C4	0	CX	78.682	C4	972.414	C4			0	CX	2513.512	C4		
E10.4	Power costs	T17g, L6	£000	I	0	CX	146.804	C4	56.426	C4	280.459	C4	0	CX	2.577	C4	56.315	C4			0	CX	542.581	C4		
E10.5	Hired and contracted services	-	£000	I	0	CX	556.048	C4	368.777	C4	611.592	C4	0	CX	170.649	C4	1525.923	C4			0	CX	3232.989	C4		
E10.6	Materials and consumables	-	£000	I	0	CX	100.317	C4	38.812	C4	120.525	C4	0	CX	10.266	C4	99.029	C4			0	CX	368.949	C4		
E10.7	Service charges SEPA	-	£000	I	0	CX	0.077	C4	0.358	C4	0.087	C4	0	CX	0.206	C4	1.42	C4			0	CX	2.148	C4		
E10.8	Other direct costs	-	£000	I	0	CX	6.994	C4	2.893	C4	3.832	C4	0	CX	1.541	C4	15.193	C4			0	CX	30.453	C4		
E10.9	Total direct costs	T17g, L5	£000	C	0	CX	1656.792	C4	648.968	C4	1450.657	C4	0	CX	263.921	C4	2670.294	C4			0	CX	6690.632	C4		
E10.10	General and support expenditure	T17g, L8	£000	I	0	CX	684.412	C4	148.503	C4	332.061	C4	0	CX	65.295	C4	776.836	C4			0	CX	2007.107	C4		
E10.11	Functional Expenditure	T17g, L9	£000	C	0	CX	2341.204	C4	797.471	C4	1782.718	C4	0	CX	329.216	C4	3447.13	C4			0	CX	8697.739	C4		
Sludge Treatment Type																										
					No Sludge		Own Sludge		Sludge Centre																	
					CG		CG		CG																	
E10.12	In treatment works size band 0	-	nr	I	1158	A2			0	A1			0	A1												
E10.13	In treatment works size band 1	-	nr	I	272	A2			0	A1			0	A1												
E10.14	In treatment works size band 2	-	nr	I	147	A2			0	A1			0	A1												
E10.15	In treatment works size band 3	-	nr	I	183	A1			0	A1			0	A1	1	A1										
E10.16	In treatment works size band 4	-	nr	I	130	A1			2	A1			3	A1												
E10.17	In treatment works size band 5	-	nr	I	28	A1			0	A1			9	A1												
E10.18	In treatment works size band 6	-	nr	I	13	A1			2	A1			7	A1												
E10.19	Not In Use																									

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SECTION E - OPERATING COSTS AND EFFICIENCY
Table E10: Wastewater Explanatory Factors - Sludge Treatment and Disposal

Line Ref.	Description	Oblat Ref	Units	Field Type	10		11		12		20		30		31		32		40		50		199		General									
					Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment	Comment Necessary	Comment		Comment Necessary	Comment							
Sludge volumes																																		
E10.1	Resident population served	T17g_L1	0	I	N		N		N		N		N		N		N		N		N		N	A1	G									
E10.2	Amount of sewage sludge	T17g_L2	tds	I	N		N		N		N		N		N		N		N		N		N	A2	G									
Sludge Treatment and Disposal cost:																																		
E10.3	Employment costs	T17g_L3	£000	I	N	Please refer to commN	A3	G																										
E10.4	Power costs	T17g_L6	£000	I	N	Please refer to commN	A4	N																										
E10.5	Hired and contracted services		£000	I	N	Please refer to commN	AX	G																										
E10.6	Materials and consumables		£000	I	N	Please refer to commN	AY	G																										
E10.7	Service charges SEPA		£000	I	N	Please refer to commN	B2	G																										
E10.8	Other direct costs		£000	I	N	Please refer to commN	B3	G																										
E10.9	Total direct costs	T17g_L5	£000	C	N																			B4	N									
E10.10	General and support expenditure	T17g_L8	£000	I	N	Please refer to commN	B5	N																										
E10.11	Functional Expenditure	T17g_L9	£000	C	N																			B6	N									
Sludge Treatment Type																																		
E10.12	In treatment works size band 0		nr	I	N																				D3	N								
E10.13	In treatment works size band 1		nr	I	N																					D4	N							
E10.14	In treatment works size band 2		nr	I	N																					D5	N							
E10.15	In treatment works size band 3		nr	I	N																					D6	N							
E10.16	In treatment works size band 4		nr	I	N																					DX	N							
E10.17	In treatment works size band 5		nr	I	N																													
E10.18	In treatment works size band 6		nr	I	N																													
E10.19	Not in use																																	
Issues with data																																		
<table border="1"> <thead> <tr> <th>Problem ?</th> <th>Solution</th> </tr> </thead> <tbody> <tr> <td>E10.11 should equal E2.12</td> <td>Y 199 Please amend numbers so they reconcile</td> </tr> <tr> <td>E10.10 should equal E2.10 + E2.11</td> <td>Y 199 Please amend numbers so they reconcile</td> </tr> <tr> <td>E10.9 should equal E2.9</td> <td>Y 199 Please amend numbers so they reconcile</td> </tr> <tr> <td>E10.4 should equal E2.2</td> <td>Y 199 Please amend numbers so they reconcile</td> </tr> </tbody> </table>																									Problem ?	Solution	E10.11 should equal E2.12	Y 199 Please amend numbers so they reconcile	E10.10 should equal E2.10 + E2.11	Y 199 Please amend numbers so they reconcile	E10.9 should equal E2.9	Y 199 Please amend numbers so they reconcile	E10.4 should equal E2.2	Y 199 Please amend numbers so they reconcile
Problem ?	Solution																																	
E10.11 should equal E2.12	Y 199 Please amend numbers so they reconcile																																	
E10.10 should equal E2.10 + E2.11	Y 199 Please amend numbers so they reconcile																																	
E10.9 should equal E2.9	Y 199 Please amend numbers so they reconcile																																	
E10.4 should equal E2.2	Y 199 Please amend numbers so they reconcile																																	

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SECTION E : OPERATING COSTS AND EFFICIENCY
Table E11: Management and General

Line Ref.	Description	Ofwat Ref	Units	Field Type	10		20	
					Water Service		Wastewater Service	
						CG		CG
Employee numbers								
E11.1	Direct operations	-	nr	I	899.827	B2	654.095	B2
E11.2	Indirect operations (General and support)	-	nr	I	176.093	B2	112.095	B2
E11.3	Other (incl hired and contracted)	-	nr	I	275.053	B2	191.336	B2
E11.4	Total employee numbers	-	nr	C	1350.973	B2	957.526	B2
Management and General Assets								
E11.5	Number of Offices	-	nr	I	11	B3	11	B3
E11.6	Area of Offices	-	m ²	I	15195	B2	13474	B2
E11.7	Number of Laboratories	-	nr	I	3	B3	2	B3
E11.8	Area of Laboratories	-	m ²	I	280	B3	3930	B3
E11.9	Number of Depots	-	nr	I	68	B3	68	B3
E11.10	Area of Depots	-	m ²	I	96288	C3	96288	C3
E11.11	Number of Workshops	-	nr	I	0	A1	0	A1
E11.12	Area of Workshops	-	m ²	I	0	A1	0	A1
E11.13	Number of Control Centres	-	nr	I	1	A1	1	A1
E11.14	Area of Control Centres	-	m ²	I	716	C3	716	C3
E11.15	Vehicles & Plant	-	£m	I	18.9	B2	21.8	B2
E11.16	% Coverage of Telemetry Systems	-	%	I	39	B3	23	B3
E11.17	Number of Telemetry Outstations	-	nr	I	1055	B3	2066	B3
E11.18	Information Systems: Personal Computers	-	nr	I	3921	A2	3883	A2
E11.19	Information Systems: Workstations	-	nr	I	435	A2	435	A2
E11.20	Information Systems: Mainframes	-	nr	I	4	A2	4	A2

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Edition 2

SECTION E : OPERATING COSTS AND EFFICIENCY
Table E11: Management and General

Line Ref.	Description	Ofwat Ref	Units	Field Type	10		20		
					Water Service	Wastewater Service	Water Service	Wastewater Service	
					Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	
Employee numbers									
E11.1	Direct operations	-	nr	I	N		N		General
E11.2	Indirect operations (General and support)	-	nr	I	N		N		A1 G
E11.3	Other (incl hired and contracted)	-	nr	I	N		N		A2 G
E11.4	Total employee numbers	-	nr	C	N		N		A3 G
Management and General Assets									
E11.5	Number of Offices	-	nr	I	N		N		A4 N
E11.6	Area of Offices	-	m ²	I	N		N		AX G
E11.7	Number of Laboratories	-	nr	I	N		N		B2 G
E11.8	Area of Laboratories	-	m ²	I	N		N		B3 G
E11.9	Number of Depots	-	nr	I	N		N		B4 N
E11.10	Area of Depots	-	m ²	I	N		N		BX G
E11.11	Number of Workshops	-	nr	I	N	CG has changed due to apportion	N	CG has changed due to apportionment between water and waste	C2 N
E11.12	Area of Workshops	-	m ²	I	N		N		C3 N
E11.13	Number of Control Centres	-	nr	I	N		N		C4 N
E11.14	Area of Control Centres	-	m ²	I	N	Where current records unavailable	N	Where current records unavailable, historic data has been used re-number and area of premises	C5 N
E11.15	Vehicles & Plant	-	£m	I	N		N		CX N
E11.16	% Coverage of Telemetry Systems	-	%	I	N		N		M N
E11.17	Number of Telemetry Outstations	-	nr	I	N		N		N N
E11.18	Information Systems: Personal Computers	-	nr	I	N		N		D3 N
E11.19	Information Systems: Workstations	-	nr	I	N		N		D4 N
E11.20	Information Systems: Mainframes	-	nr	I	N		N		D5 N
Issues with data									
					Problem ?		Solution		

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Edition 3