SECTION E : OPERATING COSTS AND EFFICIENCY
Table E1a: Activity Based Costing - Water Service

Report Year - 1 2002-03

Line Ref.	Description	Ofwat Ref JR 00	Units	Field Type	10 Area 1	20 Area 2	30 Area 3	40 Area 4	50 Area 5	60 Area 6	199 sub total (Water Resources & Treatment)	210 Area 1	220 Area 2	230 Area 3	240 Area 4	250 Area 5	260 Area 6	299 sub total (Water Distribution)	999 Water Service Total	CG
	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	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	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															0	N
E1.38	Annual charge for PPP schemes less estimated runni	T21, L26	£m	C															0	N
E1.39	**Total operating costs**	T21,L34	£m	C															0	B2

Prepared by: ..... Date: .....

Checked by: ..... Date: .....

Authorised by: ..... Date: .....

Edition 2

SCOTTISH WATER

WATER INDUSTRY COMMISSIONER FOR SCOTLAND

ANNUAL RETURN INFORMATION REQUIREMENTS

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

Report Year 2003-04

Line Ref.	Description	Ofwat Ref JR 00	Units	Field Type	10 Area 1	20 Area 2	30 Area 3	40 Area 4	50 Area 5	60 Area 6	199 sub total	210 Area 1	220 Area 2	230 Area 3	240 Area 4	250 Area 5	260 Area 6	299 sub total	999 Water Service Total	999 Water Service CG
					Water Resources & Treatment							Water Distribution								
	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	3.938	2.621	2.267	5.566			14.392	4.688	5.217	7.054	7.667			24.626	39.018	A2
E1.2	Power	T21, L2	£m	I/C	1.133	1.064	0.889	2.654			5.74	0.385	1.16	0.223	0.982			2.75	8.49	A2
E1.3	Hired and contracted services	T21, L4	£m	I/C	0.713	0.412	0.631	1.353			3.109	0.599	1.124	1.67	1.022			4.415	7.524	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	1.449	1.373	1.268	3.481			7.571	0.543	0.451	0.572	0.448			2.014	9.585	A2
E1.6	Service charges SEPA	T21, L7	£m	I/C	0.092	0.023	0.059	0.094			0.268	0.01	0.003	0	0.002			0.015	0.283	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	0.08	0.083	0.051	0.057			0.271	0.182	0.525	0.451	0.799			1.957	2.228	A2
E1.9	Total direct costs	T21, L10	£m	C	7.405	5.576	5.165	13.205	0	0	31.351	6.407	8.48	9.97	10.92	0	0	35.777	67.128	A2
E1.10	General and support employment costs	-	£m	I/C	0.968	0.61	0.511	1.035			3.124	0.862	1.924	1.595	3.023			7.404	10.528	A2
E1.11	General and support other costs	-	£m	I/C	1.577	2.386	1.38	2.875			8.218	2.091	3.882	3.232	6.19			15.395	23.613	A2
E1.12	Functional expenditure	T21, L12	£m	C	9.95	8.572	7.056	17.115	0	0	42.693	9.36	14.286	14.797	20.133	0	0	58.576	101.269	A2
	Operating Expenditure																			
E1.13	Customer services	T21, L13	£m	I															14.3	A2
E1.14	Scientific services	T21, L14	£m	I															10.269	A2
E1.15	Other business activities	T21, L15	£m	I															1.783	A2
E1.16	Total business activities	T21, L16	£m	C															26.352	A2
E1.17	Local authority rates	T21, L17	£m	I															16.1	A2
E1.18	Doubtful debts	T21, L18	£m	I															17.793	A2
E1.19	Exceptional items - start-up costs	-	£m	I															0	N
E1.20	Exceptional items - reorganisation costs	-	£m	I															11.221	A2
E1.21	Exceptional items - severance costs	-	£m	I															20.437	A2
E1.22	Exceptional items - other costs (specify)	-	£m	I															0	N
E1.23	Total Exceptional items	T21, L19	£m	C															31.658	A2
E1.24	Total opex less third party services	T21, L20	£m	C															193.172	A2
E1.25	Third party services - opex	T21, L21	£m	I															16.566	A2
E1.26	Total operating expenditure	T21, L16	£m	C															209.738	A2
	Reactive and Planned Maintenance (included in Opex)																			
E1.27	Reactive and planned maintenance infrastructure	T21,L23	£m	I/C	0.015	0.001	0.012	0.208			0.236	3.819	5.61	6.432	7.49			23.351	23.587	D3
E1.28	Reactive and planned maintenance non-infrastructure	T21,L24	£m	I/C	2.441	2.023	1.648	3.984			10.096	0.575	0.547	0.277	0.593			1.992	12.088	D3
	Capital Maintenance																			
E1.29	Infrastructure depreciation charge	T21, L25	£m	I/C							4.939							98.073	103.012	A2
E1.30	Non-infrastructure depreciation charge	T21, L26	£m	I/C							34.135							28.081	62.216	A2
E1.31	Amortisation of deferred credits	T21, L28	£m	I															-0.683	A2
E1.32	Amortisation of intangible assets	T21, L29	£m	I															0	N
E1.33	Business activities depreciation charge	T21, L30	£m	I															2.597	A2
E1.34	Capital maintenance less third party services	T21, L31	£m	C															167.142	A2
E1.35	Third party services - depreciation	T21, L32	£m	I															0.854	A2
E1.36	Total capital maintenance	T21, L33	£m	C															167.996	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 runni	T21, L26	£m	C															0	N
E1.39	**Total operating costs**	T21,L34	£m	C															377.734	A2

Prepared by: ……..... Date: ……..

Checked by: ……..... Date: ……..

Authorised by: Douglas Millican Date: ……..

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

999
Report Year 2003-04

Comment Necessary Y/N	Comment

Line Ref.	Description	Ofwat Ref JR 00	Units	Field Type			General		Benchmarking A1	
	Service Analysis - Water : Direct Costs						A1	G	A1	G
E1.0	Name	-		I			A2	G	A2	N
E1.1	Employment costs	T21, L1	£m	I/C	N	Please refer tc	A3	G	A3	N
E1.2	Power	T21, L2	£m	I/C	N	Please refer tc	A4	N	A4	N
E1.3	Hired and contracted services	T21, L4	£m	I/C	N	Please refer tc	AX	G	AX	G
E1.4	Estimated running cost of PPP schemes	-	£m	I/C	N	SW has no wa	B2	G	B2	N
E1.5	Materials and consumables	T21, L6	£m	I/C	N	Please refer tc	B3	G	B3	N
E1.6	Service charges SEPA	T21, L7	£m	I/C	N	Please refer tc	B4	N	B4	N
E1.7	Bulk supply imports	T21, L8	£m	I/C	N	SW has no bul	BX	G	BX	N
E1.8	Other direct costs	T21, L9	£m	I/C	N	Please refer tc	C2	N	C2	N
							C3	N	C3	N
E1.9	Total direct costs	T21, L10	£m	C	N	Please refer tc	C4	N	C4	N
E1.10	General and support employment costs	-	£m	I/C	N	Please refer tc	C5	N	C5	N
E1.11	General and support other costs	-	£m	I/C	N	Please refer tc	CX	N	CX	N
							M	N	M	N
E1.12	Functional expenditure	T21, L12	£m	C	N	Please refer tc	N	N	N	N
							D3	N	D3	N
	Operating Expenditure						D4	N	D4	N
E1.13	Customer services	T21, L13	£m	I	N	Please refer tc	D5	N	D5	N
E1.14	Scientific services	T21, L14	£m	I	N	Please refer tc	D6	N	D6	N
E1.15	Other business activities	T21, L15	£m	I	N	Please refer tc	DX	N	DX	N
E1.16	Total business activities	T21, L16	£m	C	N	Please refer to general comments on cost capture				
E1.17	Local authority rates	T21, L17	£m	I	N	Please refer to general comments on cost capture				
E1.18	Doubtful debts	T21, L18	£m	I	N	Please refer to general comments on cost capture				
E1.19	Exceptional items - start-up costs	-	£m	I	N	SW has no start up costs				
E1.20	Exceptional items - reorganisation costs	-	£m	I	N	Please refer to general comments on cost capture				
E1.21	Exceptional items - severance costs	-	£m	I	N	Please refer to general comments on cost capture				
E1.22	Exceptional items - other costs (specify)	-	£m	I	N	SW has no other exceptional costs				
E1.23	Total Exceptional items	T21, L19	£m	C	N	Please refer to general comments on cost capture				
E1.24	Total opex less third party services	T21, L20	£m	C	N	Please refer to general comments on cost capture				
E1.25	Third party services - opex	T21, L21	£m	I	N	Please refer to general comments on cost capture				
E1.26	Total operating expenditure	T21, L16	£m	C	N	Please refer to general comments on cost capture				
	Reactive and Planned Maintenance (included in Opex)									
E1.27	Reactive and planned maintenance infrastructure	T21,L23	£m	I/C	N	Please refer to general comments on cost capture				
E1.28	Reactive and planned maintenance non-infrastructure	T21,L24	£m	I/C	N	Please refer to general comments on cost capture				
	Capital Maintenance									
E1.29	Infrastructure depreciation charge	T21, L25	£m	I/C	N	Please refer to general comments on cost capture				
E1.30	Non-infrastructure depreciation charge	T21, L26	£m	I/C	N	Please refer to general comments on cost capture				
E1.31	Amortisation of deferred credits	T21, L28	£m	I	N	Please refer to general comments on cost capture				
E1.32	Amortisation of intangible assets	T21, L29	£m	I	N	SW has no amortisation of intangible assets				
E1.33	Business activities depreciation charge	T21, L30	£m	I	N	Please refer to general comments on cost capture				
E1.34	Capital maintenance less third party services	T21, L31	£m	C	N	Please refer to general comments on cost capture				
E1.35	Third party services - depreciation	T21, L32	£m	I	N	Please refer to general comments on cost capture				
E1.36	Total capital maintenance	T21, L33	£m	C	N	Please refer to general comments on cost capture				
	PPP Costs									
E1.37	Total annual charge for PPP schemes	T21, L25	£m	I	N	SW has no water service PPP schemes				
E1.38	Annual charge for PPP schemes less estimated running	T21, L26	£m	C	N	SW has no water service PPP schemes				
E1.39	**Total operating costs**	T21,L34	£m	C	N	Please refer to general comments on cost capture				

Issues with data	Problem ?	Solution
E1.29 should equal F9.8 (col 2)	Y	**Please amend numbers so they reconcile**

Prepared by: ……..…… Date: ……..

Checked by: ……..…… Date: ……..

Authorised by: Douglas Millican Date: ……..

Edition 2

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 2004-05				Report Year + 1 Forecast 2004-05				Report Year + 2 Budget 2005-06			
					10	20	50		100	110	150		200	210	250	
					Water Resources & Treatment	Water Distribution	Water Service		Water Resources & Treatment	Water Distribution	Water Sevice		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	11.659	19.949	31.608	B3	11.659	19.949	31.608	B3	12.074	20.66	32.734	B3
E1.2	Power	T21, L2	£m	I/C	4.649	2.228	6.877	B3	4.649	2.228	6.877	B3	4.815	2.307	7.122	B3
E1.3	Hired and contracted services	T21, L4	£m	I/C	2.518	3.577	6.095	B3	2.518	3.577	6.095	B3	2.608	3.704	6.312	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	6.133	1.632	7.765	B3	6.133	1.632	7.765	B3	6.352	1.69	8.042	B3
E1.6	Service charges SEPA	T21, L7	£m	I/C	0.217	0.012	0.229	B3	0.217	0.012	0.229	B3	0.225	0.012	0.237	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	0.22	1.585	1.805	B3	0.22	1.585	1.805	B3	0.227	1.642	1.869	B3
E1.9	Total direct costs	T21, L10	£m	C	25.396	28.983	54.379	B3	25.396	28.983	54.379	B3	26.301	30.015	56.316	B3
E1.10	General and support employment costs	-	£m	I/C	2.531	5.997	8.528	B3	2.531	5.997	8.528	B3	2.621	6.211	8.832	B3
E1.11	General and support other costs	-	£m	I/C	6.658	12.471	19.129	B3	6.658	12.471	19.129	B3	6.895	12.916	19.811	B3
E1.12	Functional expenditure	T21, L12	£m	C	34.585	47.451	82.036	B3	34.585	47.451	82.036	B3	35.817	49.142	84.959	B3
	Operating Expenditure															
E1.13	Customer services	T21, L13	£m	I			11.584	B3			11.584	B3			11.996	B3
E1.14	Scientific services	T21, L14	£m	I			8.319	B3			8.319	B3			8.615	B3
E1.15	Other business activities	T21, L15	£m	I			1.444	B3			1.444	B3			1.496	B3
E1.16	Total business activities	T21, L16	£m	C			21.347	B3			21.347	B3			22.107	B3
E1.17	Local authority rates	T21, L17	£m	I			17.623	B3			17.623	B3			18.755	B3
E1.18	Doubtful debts	T21, L18	£m	I			16.612	B3			16.612	B3			14.905	B3
E1.19	Exceptional items - start-up costs	-	£m	I			0	N			0	N			0	N
E1.20	Exceptional items - reorganisation costs	-	£m	I			15.397	B3			15.397	B3			2.996	B3
E1.21	Exceptional items - severance costs	-	£m	I			13.653	B3			13.653	B3			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			29.05	B3			29.05	B3			2.996	B3
E1.24	Total opex less third party services	T21, L20	£m	C			166.668	B3			166.668	B3			143.722	B3
E1.25	Third party services - opex	T21, L21	£m	I			36.256	B3			36.256	B3			46.412	B3
E1.26	Total operating expenditure	T21, L16	£m	C			202.924	B3			202.924	B3			190.134	B3
	Reactive and Planned Maintenance (included in Opex)															
E1.27	Reactive and planned maintenance infrastructure	T21,L23	£m	I	0.191	18.916	19.107	D4	0.191	18.916	19.107	D4	0.198	19.59	19.788	D4
E1.28	Reactive and planned maintenance non-infrastructure	T21,L24	£m	I	8.179	1.614	9.793	D4	8.179	1.614	9.793	D4	8.47	1.672	10.142	D4
	Capital Maintenance															
E1.29	Infrastructure depreciation charge	T21, L25	£m	I/C	5.941	117.962	123.903	B3	5.941	117.962	123.903	B3	6.044	120.02	126.064	B3
E1.30	Non-infrastructure depreciation charge	T21, L26	£m	I/C	33.184	26.897	60.081	B3	33.184	26.897	60.081	B3	36.25	29.382	65.632	B3
E1.31	Amortisation of deferred credits	T21, L28	£m	I			0	N			0	N			0	N
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			2.262	B3			2.262	B3			2.471	B3
E1.34	Capital maintenance less third party services	T21, L31	£m	C			186.246	B3			186.246	B3			194.167	B3
E1.35	Third party services - depreciation	T21, L32	£m	I			0.867	B3			0.867	B3			0.932	B3
E1.36	Total capital maintenance	T21, L33	£m	C			187.113	B3			187.113	B3			195.099	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 runni	T21, L26	£m	C			0	N			0	N			0	N
E1.39	Total operating costs	T21,L34	£m	C			390.037	B3			390.037	B3			385.233	B3

Prepared by: ……..... Date: ……..

Checked by: ……..... Date: ……..

Authorised by: Douglas Millican Date: ……..

Edition 2

SCOTTISH WATER

ANNUAL RETURN INFORMATION REQUIREMENTS

WATER INDUSTRY COMMISSIONER FOR SCOTLAND

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

Line Ref.	Description	Ofwat Ref JR00	Units	Field Type	50 Report Year + 1 2004-05 Comment Necessary Y/N	50 Report Year + 1 2004-05 Comment	150 Report Year + 1 Forecast 2004-05 Comment Necessary Y/N	150 Report Year + 1 Forecast 2004-05 Comment	250 Report Year + 2 Budget 2005-06 Comment Necessary Y/N	250 Report Year + 2 Budget 2005-06 Comment
	Service Analysis - Water : Direct Costs									
E1.0	Not in use									
E1.1	Employment costs	T21, L1	£m	I/C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.2	Power	T21, L2	£m	I/C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.3	Hired and contracted services	T21, L4	£m	I/C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.4	Estimated running costs of PPP schemes	-	£m	I/C	N	SW has no water service PPP schemes	N	SW has no water service PPP schemes	N	SW has no water service PPP schemes
E1.5	Materials and consumables	T21, L6	£m	I/C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.6	Service charges SEPA	T21, L7	£m	I/C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.7	Bulk supply imports	T21, L8	£m	I/C	N	SW has no bulk supply imports	N	SW has no bulk supply imports	N	SW has no bulk supply imports
E1.8	Other direct costs	T21, L9	£m	I/C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.9	Total direct costs	T21, L10	£m	C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.10	General and support employment costs	-	£m	I/C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.11	General and support other costs	-	£m	I/C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.12	Functional expenditure	T21, L12	£m	C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
	Operating Expenditure									
E1.13	Customer services	T21, L13	£m	I	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.14	Scientific services	T21, L14	£m	I	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.15	Other business activities	T21, L15	£m	I	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.16	Total business activities	T21, L16	£m	C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.17	Local authority rates	T21, L17	£m	I	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.18	Doubtful debts	T21, L18	£m	I	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.19	Exceptional items - start-up costs	-	£m	I	N	SW has no start up costs	N	SW has no start up costs	N	SW has no start up costs
E1.20	Exceptional items - reorganisation costs	-	£m	I	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.21	Exceptional items - severance costs	-	£m	I	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	SW has no start up costs
E1.22	Exceptional items - other costs (specify)	-	£m	I	N	SW has no other exceptional costs	N	SW has no other exceptional costs	N	SW has no other exceptional costs
E1.23	Total Exceptional items	T21, L19	£m	C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.24	Total opex less third party services	T21, L20	£m	C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.25	Third party services - opex	T21, L21	£m	I	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.26	Total operating expenditure	T21, L16	£m	C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
	Reactive and Planned Maintenance (included in Opex)									
E1.27	Reactive and planned maintenance infrastructure	T21,L23	£m	I	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.28	Reactive and planned maintenance non-infrastructu	T21,L24	£m	I	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
	Capital Maintenance									
E1.29	Infrastructure depreciation charge	T21, L25	£m	I/C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.30	Non-infrastructure depreciation charge	T21, L26	£m	I/C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.31	Amortisation of deferred credits	T21, L28	£m	I	N	SW has no amortisation of deferred credits	N	SW has no amortisation of deferred credits	N	SW has no amortisation of deferred credits
E1.32	Amortisation of intangible assets	T21, L29	£m	I	N	SW has no amortisation of intangible assets	N	SW has no amortisation of intangible assets	N	SW has no amortisation of intangible assets
E1.33	Business activities depreciation charge	T21, L30	£m	I	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.34	Capital maintenance less third party services	T21, L31	£m	C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.35	Third party services - depreciation	T21, L32	£m	I	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
E1.36	Total capital maintenance	T21, L33	£m	C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture
	PPP Costs									
E1.37	Total annual charge for PPP schemes	T21, L25	£m	I	N	SW has no water service PPP schemes	N	SW has no water service PPP schemes	N	SW has no water service PPP schemes
E1.38	Annual charge for PPP schemes less estimated runn	T21, L26	£m	C	N	SW has no water service PPP schemes	N	SW has no water service PPP schemes	N	SW has no water service PPP schemes
E1.39	Total operating costs	T21,L34	£m	C	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture	N	Please refer to general comments on cost capture

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

Prepared by: ..... Date: .....

Checked by: ..... Date: .....

Authorised by: Douglas Millican Date: .....

Edition 2

SCOTTISH WATER

ANNUAL RETURN INFORMATION REQUIREMENT

WATER INDUSTRY COMMISSIONER FOR SCOTLAND

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

Report Year - 1 2002-03

Line Ref.	Description	Ofwat Ref	Units	Field Type	10 Sewerage Area 1	20 Sewerage Area 2	30 Sewerage Area 3	40 Sewerage Area 4	50 Sewerage Area 5	60 Sewerage Area 6	70 Sewerage Area 7	80 Sewerage Area 8	199 Sewerage sub total	210 Sewage Treatment	220 Sludge Treatment and Disposal	999 Sewerage Service Total	CG
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	Estimated running cost of PPP schemes	-	£m	I/C									0			0	
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-infrastructur	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	
PPP Costs																	
E2.37	Total annual charge for PPP schemes	T21, L25	£m	I													
E2.38	Annual charge for PPP schemes less estimated runn	T21, L26	£m	C												0	
E2.39	**Total operating costs**	T22,L35	£m	C												0	

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Edition 2

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

Report Year 2003-04

Line Ref.	Description	Ofwat Ref	Units	Field Type	10 Area 1	20 Area 2	30 Area 3	40 Area 4	50 Area 5	60 Area 6	70 Area 7	80 Area 8	199 sub total	210 Sewage Treatment	220 Sludge Treatment	999 Sewerage Service Total	CG
					Sewerage												
	Service Analysis - Waste Water Direct Costs																
E2.0	Name	-		I	NW	NE	SE	SW									
E2.1	Employment costs	T22, L1	£m	I/C	2.276	3.902	2.915	5.167					14.26	11.074	3.514	28.848	A2
E2.2	Power	T22, L2	£m	I/C	0.636	0.785	0.46	1.756					3.637	4.395	0.458	8.49	A2
E2.3	Hired and contracted services	T22, L4	£m	I/C	0.435	0.9	0.778	3.152					5.265	2.503	4.41	12.178	A2
E2.4	Estimated running cost of PPP schemes	-	£m	I/C	0.527	2.593	0.246	0					3.366	17.811	13.556	34.733	B3
E2.5	Materials and consumables	T22, L6	£m	I/C	0.227	0.482	0.178	0.478					1.365	1.471	0.365	3.201	A2
E2.6	Service charges SEPA	T22, L7	£m	I/C	0.165	0.191	0.155	0.571					1.082	6.401	0.134	7.617	A2
E2.7	Not in use																
E2.8	Other direct costs	T22, L8	£m	I/C	0.045	0.298	0.133	0.505					0.981	0.309	0.058	1.348	A2
E2.9	Total direct costs	T22, L11	£m	C	4.311	9.151	4.865	11.629	0	0	0	0	29.956	43.964	22.495	96.415	A2
E2.10	General and support employment costs	-	£m	I/C	0.406	0.836	0.694	0.962					2.898	2.207	0.794	5.899	A2
E2.11	General and support other costs	-	£m	I/C	1.065	2.244	1.632	2.7					7.641	4.674	1.935	14.25	A2
E2.12	Functional expenditure	T22, L13	£m	C	5.782	12.231	7.191	15.291	0	0	0	0	40.495	50.845	25.224	116.564	A2
	Operating Expenditure																
E2.13	Customer services	T22, L14	£m	I												14.098	A2
E2.14	Scientific services	T22, L15	£m	I												1.31	A2
E2.15	Other business activities	T22, L16	£m	I												1.84	A2
E2.16	Total business activities	T22, L17	£m	C												17.248	A2
E2.17	Local authority rates	T22, L18	£m	I												14.92	A2
E2.18	Doubtful debts	T22, L19	£m	I												20.505	A2
E2.19	Exceptional items - start-up costs	-	£m	I												0	N
E2.20	Exceptional items - reorganisation costs	-	£m	I												7.503	A2
E2.21	Exceptional items - severance costs	-	£m	I												13.663	A2
E2.22	Exceptional items - other costs (specify)	-	£m	I												0	N
E2.23	Total Exceptional items	T22,L20	£m	C												21.166	A2
E2.24	Total opex less third party services	T22,L21	£m	C												190.403	A2
E2.25	Third party services - opex	T22,L22	£m	I												3.777	A2
E2.26	Total operating expenditure	T22,L23	£m	C												194.18	A2
	Reactive and Planned Maintenance (included in Opex)																
E2.27	Reactive and planned maintenance infrastructure	T22, L24	£m	I/C	1.817	3.194	2.412	5.508					12.931	0	0	12.931	D3
E2.28	Reactive and planned maintenance non-infrastructu	T22, L25	£m	I/C	0.376	0.897	0.61	1.098					2.981	8.996	0.522	12.499	D3
	Capital Maintenance																
E2.29	Infrastructure depreciation charge	T22, L26	£m	I/C									39.836	0	0	39.836	A2
E2.30	Non-infrastructure depreciation charge	T22,L28	£m	I/C									16.29	32.68	4.347	53.317	A2
E2.31	Amortisation of deferred credits	T22, L29	£m	I												-0.329	A2
E2.32	Amortisation of intangible assets	T22, L30	£m	I												0	N
E2.33	Business activities depreciation charge	T22, L31	£m	I												1.561	A2
E2.34	Capital maintenance less third party services	T22,L32	£m	C												94.385	A2
E2.35	Third party services - depreciation	T22,L33	£m	I												0.21	A2
E2.36	Total capital maintenance	T22,L34	£m	C												94.595	A2
	PPP Costs																
E2.37	Total annual charge for PPP schemes	T21, L25	£m	I												111.508	A2
E2.38	Annual charge for PPP schemes less estimated run	T21, L26	£m	C												76.775	A2
E2.39	**Total operating costs**	T22,L35	£m	C												365.55	A2

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Authorised by: Douglas Millican Date: .....

Edition 2

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

999

Report Year 2003-04

Comment Necessary Y/N	Comment

Line Ref.	Description	Ofwat Ref	Units	Field Type			General		Benchmarking A1	
	Service Analysis - Waste Water Direct Costs						A1	G	A1	G
E2.0	Name	-		I			A2	G	A2	N
E2.1	Employment costs	T22, L1	£m	I/C	N	Please refer to general comments on cost	A3	G	A3	N
E2.2	Power	T22, L2	£m	I/C	N	Please refer to general comments on cost	A4	N	A4	N
E2.3	Hired and contracted services	T22, L4	£m	I/C	N	Please refer to general comments on cost	AX	G	AX	G
E2.4	Estimated running cost of PPP schemes	-	£m	I/C	N	Please refer to general comments on cost	B2	G	B2	N
E2.5	Materials and consumables	T22, L6	£m	I/C	N	Please refer to general comments on cost	B3	G	B3	N
E2.6	Service charges SEPA	T22, L7	£m	I/C	N	Please refer to general comments on cost	B4	N	B4	N
E2.7	Not in use						BX	G	BX	N
E2.8	Other direct costs	T22, L8	£m	I/C	N	Please refer to general comments on cost	C2	N	C2	N
E2.9	Total direct costs	T22, L11	£m	C	N	Please refer to general comments on cost	C3	N	C3	N
E2.10	General and support employment costs	-	£m	I/C	N	Please refer to general comments on cost	C4	N	C4	N
E2.11	General and support other costs	-	£m	I/C	N	Please refer to general comments on cost	C5	N	C5	N
							CX	N	CX	N
E2.12	Functional expenditure	T22, L13	£m	C	N	Please refer to general comments on cost	M	N	M	N
							N	N	N	N
	Operating Expenditure						D3	N	D3	N
E2.13	Customer services	T22, L14	£m	I	N	Please refer to general comments on cost	D4	N	D4	N
E2.14	Scientific services	T22, L15	£m	I	N	Please refer to general comments on cost	D5	N	D5	N
E2.15	Other business activities	T22, L16	£m	I	N	Please refer to general comments on cost	D6	N	D6	N
E2.16	Total business activities	T22, L17	£m	C	N	Please refer to general comments on cost	DX	N	DX	N
E2.17	Local authority rates	T22, L18	£m	I	N	Please refer to general comments on cost capture				
E2.18	Doubtful debts	T22, L19	£m	I	N	Please refer to general comments on cost capture				
E2.19	Exceptional items - start-up costs	-	£m	I	N	SW has no start up costs				
E2.20	Exceptional items - reorganisation costs	-	£m	I	N	Please refer to general comments on cost capture				
E2.21	Exceptional items - severance costs	-	£m	I	N	Please refer to general comments on cost capture				
E2.22	Exceptional items - other costs (specify)	-	£m	I	N	SW has no other exceptional costs				
E2.23	Total Exceptional items	T22,L20	£m	C	N	Please refer to general comments on cost capture				
E2.24	Total opex less third party services	T22,L21	£m	C	N	Please refer to general comments on cost capture				
E2.25	Third party services - opex	T22,L22	£m	I	N	Please refer to general comments on cost capture				
E2.26	Total operating expenditure	T22,L23	£m	C	N	Please refer to general comments on cost capture				
	Reactive and Planned Maintenance (included in Opex)									
E2.27	Reactive and planned maintenance infrastructure	T22, L24	£m	I/C	N	Please refer to general comments on cost capture				
E2.28	Reactive and planned maintenance non-infrastructure	T22, L25	£m	I/C	N	Please refer to general comments on cost capture				
	Capital Maintenance									
E2.29	Infrastructure depreciation charge	T22, L26	£m	I/C	N	Please refer to general comments on cost capture				
E2.30	Non-infrastructure depreciation charge	T22,L28	£m	I/C	N	Please refer to general comments on cost capture				
E2.31	Amortisation of deferred credits	T22, L29	£m	I	N	SW has no amortisation of deferred credits				
E2.32	Amortisation of intangible assets	T22, L30	£m	I	N	SW has no amortisation of intangible assets				
E2.33	Business activities depreciation charge	T22, L31	£m	I	N	Please refer to general comments on cost capture				
E2.34	Capital maintenance less third party services	T22,L32	£m	C	N	Please refer to general comments on cost capture				
E2.35	Third party services - depreciation	T22,L33	£m	I	N	Please refer to general comments on cost capture				
E2.36	Total capital maintenance	T22,L34	£m	C	N	Please refer to general comments on cost capture				
	PPP Costs									
E2.37	Total annual charge for PPP schemes	T21, L25	£m	I	N	Please refer to general comments on cost capture				
E2.38	Annual charge for PPP schemes less estimated running	T21, L26	£m	C	N	Please refer to general comments on cost capture				
E2.39	**Total operating costs**	T22,L35	£m	C	N	Please refer to general comments on cost capture				

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

Checked by: ……..... Date: ……..

Authorised by: Douglas Millican Date: ……..

Edition 2

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 2004-05					Report Year + 1 Forecast 2004-05					Report Year + 2 Budget 2005-06				
					10	20	30	50		100	110	120	150		200	210	220	250	
					Sewerage All Areas Total	Sewage Treatment	Sludge Treatment	Sewerage Service Total	CG	Sewerage All Areas Total	Sewage Treatment	Sludge Treatment	Sewerage Service Total	CG	Sewerage All Areas Total	Sewage Treatment	Sludge Treatment	Sewerage Service Total	CG
	Service Analysis - Waste Water Direct Costs		**Name**																
E2.0	Not in use																		
E2.1	Employment costs	T22, L1	£m	I/C	11.552	8.971	2.847	23.37	B3	11.552	8.971	2.847	23.37	B3	11.963	9.291	2.948	24.202	B3
E2.2	Power	T22, L2	£m	I/C	2.947	3.561	0.371	6.879	B3	2.947	3.561	0.371	6.879	B3	3.052	3.687	0.384	7.123	B3
E2.3	Hired and contracted services	T22, L4	£m	I/C	4.265	2.028	3.572	9.865	B3	4.265	2.028	3.572	9.865	B3	4.417	2.1	3.7	10.217	B3
E2.4	Estimated running cost of PPP schemes	-	£m	I/C	3.508	24.921	16.251	44.68	B3	3.508	24.921	16.251	44.68	B3	3.544	26.024	16.769	46.337	B3
E2.5	Materials and consumables	T22, L6	£m	I/C	1.105	1.191	0.296	2.592	B3	1.105	1.191	0.296	2.592	B3	1.145	1.234	0.306	2.685	B3
E2.6	Service charges SEPA	T22, L7	£m	I/C	0.844	3.985	0.104	4.933	B3	0.844	3.985	0.104	4.933	B3	0.874	4.127	0.108	5.109	B3
E2.7	Not in use																		
E2.8	Other direct costs	T22, L8	£m	I/C	0.795	0.25	0.047	1.092	B3	0.795	0.25	0.047	1.092	B3	0.823	0.259	0.049	1.131	B3
E2.9	Total direct costs	T22, L11	£m	C	25.016	44.907	23.488	93.411	B3	25.016	44.907	23.488	93.411	B3	25.818	46.722	24.264	96.804	B3
E2.10	General and support employment costs	-	£m	I/C	2.348	1.788	0.643	4.779	B3	2.348	1.788	0.643	4.779	B3	2.432	1.851	0.666	4.949	B3
E2.11	General and support other costs	-	£m	I/C	6.189	3.786	1.568	11.543	B3	6.189	3.786	1.568	11.543	B3	6.41	3.921	1.624	11.955	B3
E2.12	Functional expenditure	T22, L13	£m	C	33.553	50.481	25.699	109.733	B3	33.553	50.481	25.699	109.733	B3	34.66	52.494	26.554	113.708	B3
	Operating Expenditure																		
E2.13	Customer services	T22, L14	£m	I				11.42	B3				11.42	B3				11.827	B3
E2.14	Scientific services	T22, L15	£m	I				1.061	B3				1.061	B3				1.099	B3
E2.15	Other business activities	T22, L16	£m	I				1.49	B3				1.49	B3				1.544	B3
E2.16	Total business activities	T22, L17	£m	C				13.971	B3				13.971	B3				14.47	B3
E2.17	Local authority rates	T22, L18	£m	I				10.269	B3				10.269	B3				10.929	B3
E2.18	Doubtful debts	T22, L19	£m	I				19.144	B3				19.144	B3				17.177	B3
E2.19	Exceptional items - start-up costs	-	£m	I				0	N				0	N				0	N
E2.20	Exceptional items - reorganisation costs	-	£m	I				10.294	B3				10.294	B3				2.003	B3
E2.21	Exceptional items - severance costs	-	£m	I				9.129	B3				9.129	B3				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				19.423	B3				19.423	B3				2.003	B3
E2.24	Total opex less third party services	T22,L21	£m	C				172.54	B3				172.54	B3				158.287	B3
E2.25	Third party services - opex	T22,L22	£m	I				8.265	B3				8.265	B3				10.579	B3
E2.26	Total operating expenditure	T22,L23	£m	C				180.805	B3				180.805	B3				168.866	B3
	Reactive and Planned Maintenance (included in Opex)																		
E2.27	Reactive and planned maintenance infrastructure	T22, L24	£m	I/C	10.475	0	0	10.475	D4	10.475	0	0	10.475	D4	10.849	0	0	10.849	D4
E2.28	Reactive and planned maintenance non-infrastructure	T22, L25	£m	I/C	2.415	7.288	0.422	10.125	D4	2.415	7.288	0.422	10.125	D4	2.501	7.547	0.437	10.485	D4
	Capital Maintenance																		
E2.29	Infrastructure depreciation charge	T22, L26	£m	I/C	47.914	0	0	47.914	B3	47.914	0	0	47.914	B3	48.75	0	0	48.75	B3
E2.30	Non-infrastructure depreciation charge	T22,L28	£m	I/C	15.779	31.77	4.226	51.775	B3	15.779	31.77	4.226	51.775	B3	17.237	34.705	4.617	56.559	B3
E2.31	Amortisation of deferred credits	T22, L29	£m	I				0	N				0	N				0	N
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				1.255	B3				1.255	B3				1.371	B3
E2.34	Capital maintenance less third party services	T22,L32	£m	C				100.944	B3				100.944	B3				106.68	B3
E2.35	Third party services - depreciation	T22,L33	£m	I				0.204	B3				0.204	B3				0.222	B3
E2.36	Total capital maintenance	T22,L34	£m	C				101.148	B3				101.148	B3				106.902	B3
	PPP Costs																		
E2.37	Total annual charge for PPP schemes	T21, L25	£m	I				120.234	B2				120.234	B2				129.935	B2
E2.38	Annual charge for PPP schemes less estimated running costs	T21, L26	£m	C				75.554	N				75.554	N				83.598	N
E2.39	**Total operating costs**	T22,L35	£m	C				357.507	B3				357.507	B3				359.366	B3

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Edition 2

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

	50	150	250
	Report Year + 1 Budget 2004-05	Report Year + 1 Forecast 2004-05	Report Year + 2 Budget 2005-06
	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment

Line Ref.	Description	Ofwat Ref	Units	Field Type						General		Benchmarking B2		Benchmarking A2	
	Service Analysis - Waste Water Direct Costs		**Name**												
E2.0	Not in use														
E2.1	Employment costs	T22, L1	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	A1	G	A1	G	A1	G
E2.2	Power	T22, L2	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	A2	G	A2	G	A2	G
E2.3	Hired and contracted services	T22, L4	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	A3	G	A3	G	A3	N
E2.4	Estimated running cost of PPP schemes	-	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	A4	N	A4	N	A4	N
E2.5	Materials and consumables	T22, L6	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	AX	G	AX	G	AX	G
E2.6	Service charges SEPA	T22, L7	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	B2	G	B2	G	B2	N
E2.7	Not in use										B3	G	B3	N	B3	N
E2.8	Other direct costs	T22, L8	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	B4	N	B4	N	B4	N
											BX	G	BX	G	BX	N
E2.9	Total direct costs	T22, L11	£m	C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	C2	N	C2	N	C2	N
E2.10	General and support employment costs	-	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	C3	N	C3	N	C3	N
E2.11	General and support other costs	-	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	C4	N	C4	N	C4	N
											C5	N	C5	N	C5	N
E2.12	Functional expenditure	T22, L13	£m	C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	CX	N	CX	N	CX	N
											M	N	M	N	M	N
	Operating Expenditure										N	N	N	N	N	N
E2.13	Customer services	T22, L14	£m	I	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	D3	N	D3	N	D3	N
E2.14	Scientific services	T22, L15	£m	I	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	D4	N	D4	N	D4	N
E2.15	Other business activities	T22, L16	£m	I	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	D5	N	D5	N	D5	N
E2.16	Total business activities	T22, L17	£m	C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general co	D6	N	D6	N	D6	N
											DX	N	DX	N	DX	N
E2.17	Local authority rates	T22, L18	£m	I	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.18	Doubtful debts	T22, L19	£m	I	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.19	Exceptional items - start-up costs	-	£m	I	N	SW has no start up	N	SW has no start up costs	N	SW has no start up costs						
E2.20	Exceptional items - reorganisation costs	-	£m	I	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.21	Exceptional items - severance costs	-	£m	I	N	Please refer to gen	N	Please refer to general c	N	SW has no start up costs						
E2.22	Exceptional items - other costs (specify)	-	£m	I	N	SW has no other e	N	SW has no other exceptic	N	SW has no other exceptional costs						
E2.23	Total Exceptional items	T22,L20	£m	C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.24	Total opex less third party services	T22,L21	£m	C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.25	Third party services - opex	T22,L22	£m	I	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.26	Total operating expenditure	T22,L23	£m	C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
	Reactive and Planned Maintenance (included in Opex)															
E2.27	Reactive and planned maintenance infrastructure	T22, L24	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.28	Reactive and planned maintenance non-infrastructure	T22, L25	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
	Capital Maintenance															
E2.29	Infrastructure depreciation charge	T22, L26	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.30	Non-infrastructure depreciation charge	T22,L28	£m	I/C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.31	Amortisation of deferred credits	T22, L29	£m	I	N	SW has no amortis	N	SW has no amortisation	N	SW has no amortisation of deferred credits						
E2.32	Amortisation of intangible assets	T22, L30	£m	I	N	SW has no amortis	N	SW has no amortisation	N	SW has no amortisation of intangible assets						
E2.33	Business activities depreciation charge	T22, L31	£m	I	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.34	Capital maintenance less third party services	T22,L32	£m	C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.35	Third party services - depreciation	T22,L33	£m	I	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.36	Total capital maintenance	T22,L34	£m	C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
	PPP Costs															
E2.37	Total annual charge for PPP schemes	T21, L25	£m	I	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.38	Annual charge for PPP schemes less estimated running cos	T21, L26	£m	C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						
E2.39	**Total operating costs**	T22,L35	£m	C	N	Please refer to gen	N	Please refer to general c	N	Please refer to general comments on cost capture						

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Edition 2

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	10 Project 1 CG	20 Project 2 CG	30 Project 3 CG	40 Project 4 CG	50 Project 5 CG	60 Project 6 CG	70 Project 7 CG	80 Project 8 CG	90 Project 9 CG	100 Project 10 CG	110 Project 11 CG	120 Project 12 CG	130 Project 13 CG	140 Project 14 CG	150 Project 15 CG	160 Project 16 CG	170 Project 17 CG	180 Project 18 CG	190 Project 19 CG	200 Project 20 CG	210 Project 21 CG	220 Project 22 CG	230 Project 23 CG	240 Project 24 CG	250 Project 25 CG	199 Total CG
Project Data																														
E3.0	Name			I	Ft. William	Inverness	Hatton	Nigg	Persley	Peterhead	Fraserburgh	Lossiemouth	Buckie	Banff/Macduff	Seafield	Newbridge	East Calder	Blackburn	Whitburn	Levenmouth	Dalmuir	Daldowie	Meadowhead	Stevenston	Inverclyde						
E3.1	Annual average resident connected population		000	I/C	10.7 B3	67.9 B3	197.6 B3	209.7 B3	20.5 B3	23.1 B3	16.2 B3	42.3 B3	13.8 B3	10.7 B3	540 B3	19.7 B3	67.6 B3	12.6 B3	11.2 B3	120.4 B3	368.6 B3	0 N	187.9 B3	68.3 B3	78 B3						2086.8 B3
E3.2	Annual average non-resident connected population		000	I/C	1.1 B3	3.2 B3	3.4 B3	3.9 B3	0.7 B3	0.7 B3	0.3 B3	1 B3	0.9 B3	0.7 B3	13.3 B3	0.2 B3	0.3 B3	0.3 B3	0.1 B3	2 B3	5.5 B3	0 N	4 B3	0.8 B3	0.7 B3						43.1 B3
E3.3	Trade effluent load received by works		kg/COD/day	I/C	283 B4	1958 B4	4155 B4	7017 B4	1477 B4	2648 B4	2940 B4	608 B4	1094 B4	483 B4	24902 B4	1122 B4	1846 B4	523 B4	36 B4	19084 B4	12044 B4	0 N	18528 B4	8829 B4	300 B4						109877 B4
E3.4	Tanker load received by works		kg/COD/day	I/C	3 B4	3696 B4	5874 B4	7567 B4	0 BX	3047 B4	0 BX	580 B4	0 BX	37 B4	12885 B4	13929 B4	0 BX	0 BX	0 BX	75 B4	0 BX	0 N	0 BX	0 BX	0 BX						47693 B4
E3.5	Population equivalent of total load received		000	I/C	17 B3	102 B3	270 B3	303 B3	36 B3	54 B3	46 B3	54 B3	26 B3	18 B3	921 B3	47 B3	95 B3	18 B3	13 B3	291 B3	555 B3	0 N	318 B3	88 B3	89 B3						3361 B3
E3.6	Project Status			I	S10 A1	S10 A1	S10 A1	S10 A1	S10 A1	S10 A1	S10 A1	S10 A1	S10 A1	S10 A1	S10 A1	S10 A1	S10 A1	S10 A1	S10 A1	S9 A1	S10 A1	S9 A1	S9 A1	S9 A1	S9 A1						
Scope of Works																														
E3.7	Sewerage		1/0	I	1 A1	1 A1	1 A1	0 A1	0 A1	0 A1	0 A1	1 A1	1 A1	1 A1	1 A1	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1						
E3.8	Sewage Treatment		1/0	I	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	0 A1	1 A1	1 A1	1 A1						
E3.9	Sludge Treatment		1/0	I	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1						
E3.10	Terminal Pumping Station		1/0	I	1 A1	1 A1	1 A1	0 A1	0 A1	0 A1	1 A1	1 A1	1 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1						
E3.11	Other (state details)		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 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1						
Sewage Treatment - Treatability																														
E3.12	Biological Oxygen Demand (BOD5) of influent		mg/l	I	175 A2	171 A2	94 A2	243 A2	224 A2	315 A2	289 A2	155 A2	137 A2	112 A2	139 A2	169 A2	194 A2	141 A2	86 A2	271 A2	106 A2	0 N	131 A2	71 A2	61 A2						
E3.13	Chemical Oxygen Demand (COD) of influent		mg/l	I	458 A2	521 A2	311 A2	604 A2	562 A2	749 A2	591 A2	602 A2	406 A2	365 A2	395 A2	455 A2	527 A2	456 A2	276 A2	566 A2	321 A2	0 N	388 A2	343 A2	197 A2						
E3.14	Total Organic Carbon (TOC) of influent		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 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N						
E3.15	Suspended solids (SS) of influent		mg/l	I	192 A2	229 A2	157 A2	302 A2	249 A2	342 A2	188 A2	246 A2	168 A2	195 A2	188 A2	196 A2	221 A2	271 A2	137 A2	302 A2	174 A2	0 N	146 A2	151 A2	116 A2						
E3.16	Ammoniacal Nitrogen (NH3) of influent		mg/l	I	0 N	0 N	0 N	0 N	33 A2	0 N	0 N	0 N	0 N	0 N	15 A2	18 A2	22 A2	17 A2	12 A2	0 N	14 A2	0 N	13 A2	17 A2	12 A2						
Sewage Treatment - Effluent Consent Standard																														
E3.17	Suspended solids consent		mg/l	I	35 A1	35 A1	0 N	0 N	40 A1	0 N	0 N	0 N	0 N	0 N	150 A1	0 N	0 N	0 N	0 N	0 N	35 A1	0 N	0 N	0 N	35 A1						
E3.18	BOD consent		mg/l	I	25 A1	25 A1	25 A1	25 A1	25 A1	25 A1	25 A1	25 A1	25 A1	25 A1	25 A1	15 A1	15 A1	10 A1	10 A1	25 A1	25 A1	0 N	25 A1	25 A1	25 A1						
E3.19	COD consent		mg/l	I	0 N	0 N	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	0 N	125 A1	125 A1	125 A1						
E3.20	Ammonia consent		mg/l	I	0 N	0 N	50 A1	0 N	35 A1	0 N	0 N	0 N	0 N	0 N	0 N	5 A1	2 A1	2 A1	1 A1	0 N	20 A1	0 N	50 A1	50 A1	0 N						
E3.21	Phosphate consent		mg/l	I	0 N	0 N	0 N	0 N	2 A1	0 N	0 N	0 N	0 N	0 N	0 N	0.5 A1	0.5 A1	0.5 A1	0.5 A1	0 N	0 N	0 N	0 N	0 N	0 N						
E3.22	Compliance with effluent consent standard		%	I	100 A1	100 A1	100 A1	100 A1	94 A1	100 A1	100 A1	100 A1	100 A1	100 A1	100 A1	100 A1	100 A1	100 A1	100 A1	100 A1	100 A1	0 N	100 A1	100 A1	100 A1						
Sewage Treatment - Flow																														
E3.23	Average daily flow in dry weather		Ml/d	I/C	4 B2	20 B2	80 B2	63 B2	11 B2	8 B2	7 B2	10 B2	6 B2	4 B2	232 B2	9 B2	19 B2	4 B2	3 B2	50 B2	192 B3	0 N	95 B3	39 B3	23 B3						879 B3
E3.24	Ratio of daily maximum to to minimum flow		nr	I	4 B2	2.7 B2	2.5 B2	2.8 B2	3.5 B2	3.2 B2	3.1 B2	3.3 B3	2.6 B3	0 M	1.71 B2	2.31 B3	2.67 B3	2.06 B3	2.25 B3	2 B3	1.8 B3	0 N	0 N	0 N	0 N						
Treatment Works Category																														
E3.25	Primary		1/0	I	1 A1	1 A1	1 A1	1 A1	0 A1	1 A1	1 A1	0 A1	0 A1	0 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	0 N	0 A1	1 A1	1 A1						
E3.26	Secondary activated sludge		1/0	I	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	0 A1	1 A1	1 A1	1 A1	0 N	1 A1	1 A1	1 A1						
E3.27	Secondary biological		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 A1	1 A1	0 A1	0 A1	0 A1	0 N	0 A1	0 A1	0 A1						
E3.28	Tertiary A1		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	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 N	0 A1	0 A1	0 A1						
E3.29	Tertiary A2		1/0	I	0 A1	1 A1	0 A1	0 A1	1 A1	0 A1	1 A1	0 A1	0 A1	1 A1	1 A1	1 A1	1 A1	0 A1	1 A1	0 A1	1 A1	0 N	0 A1	0 A1	0 A1						
E3.30	Tertiary B1		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 A1	0 A1	0 A1	0 A1	0 A1	0 N	0 A1	0 A1	0 A1						
E3.31	Tertiary B2		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 A1	1 A1	0 A1	0 A1	0 A1	0 N	1 A1	0 A1	0 A1						
Miscellaneous Data																														
E3.32	Sea outfalls at works		1/0	I	1 A1	1 A1	1 A1	1 A1	0 A1	1 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	1 A1	1 A1						
E3.33	Terminal Pumping costs		1/0	I	1 A1	1 A1	1 A1	0 A1	0 A1	0 A1	1 A1	0 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						
E3.34	Own sludge		1/0	I	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1	1 A1	0 A1	1 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	1 A1	1 A1						
E3.35	Own sludge costs		1/0	I	1 A1	0 A1	0 A1	0 A1	1 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	1 A1	1 A1	0 A1	0 A1						
E3.36	Sludge centre		1/0	I	1 A1	1 A1	1 A1	1 A1	0 A1	1 A1	0 A1	1 A1	0 A1	0 A1	1 A1	1 A1	0 A1	0 A1	0 A1	1 A1	0 A1	1 A1	1 A1	0 A1	0 A1						
E3.37	Sludge centre costs		1/0	I	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	1 A1	1 A1	0 A1	0 A1	0 A1	1 A1	0 A1	1 A1	1 A1	0 A1	0 A1						
Total Cost Analysis																														
E3.38	Annual charge		£m	I/C	2.706 A1	4.274 A1	18.619 B3	7.947 A2	1.832 A2	1.518 A1	1.592 A1	4.067 B3	3.32 B3	3.33 B3	15.473 B3	2.326 B3	1.341 B3	0.608 B3	0.824 B3	8.701 B3	6.86 A2	14.205 A2	6.258 A2	2.814 A2	2.893 A1						111.508 B3
E3.39	Public sector capital equivalent value		£m	I/C	15.627 B3	50.45 B3	135.464 B3	74.691 B3	18.139 B3	18.139 B3	14.938 B3	33.166 B3	24.479 B3	21.321 B3	58.486 B3	8.465 B3	4.617 B3	2.309 B3	3.078 B3	29.237 B3	50.755 B3	76.9 B3	52.938 B3	14.999 B3	14.47 B3						722.688 B3
E3.40	Estimated annual direct operating cost		£m	I/C	0.746 B3	1.81 B3	5.334 B3	2.253 B3	0.771 B3	0.669 B3	0.578 B3	1.651 B3	0.855 B3	0.741 B3	7.26 B3	1.184 B3	0.718 B3	0.297 B3	0.409 B3	3.543 B3	2.393 B3	5.998 B3	2.356 B3	1.198 B3	1.036 B3						41.8 B3
E3.41	Contract period		years	I	25 A1	25 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	30 A1	40 A1	25 A1	24 A1	30 A1	30 A1	30 A1						
Associated AuthorityCosts																														
E3.42	Service charges SEPA		£m	I/C	0 N	0 N	0 N	0.162 A1	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0.094 A1	0 N	0.074 B3	0.074 A1	0.014 A1						0.418 A1
E3.43	General and support expenditure		£m	I/C	0.008 A2	0.026 A2	0.1 A2	0.276 A2	0.008 A2	0.007 A2	0.006 A2	0.155 A2	0.009 A2	0.008 A2	0.172 A2	0.012 A2	0.007 A2	0.003 A2	0.004 A2	0.067 A2	0.039 A2	0.065 A2	0.032 A2	0.02 A2	0.018 A2						1.042 A2
E3.44	Terminal pumping station costs		£m	I/C	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 M	0 M	0 N						0 N
E3.45	Sludge costs		£m	I/C	0.02 A2	0.081 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 N	0 N	-0.232 A1	0 N	0 N	0 N						-0.131 A2
E3.46	Authority operating costs associated with PPP		£m	I/C	0 A1	0.044 A1	0.044 A2	0.005 A1	0 A1	0 A1	0 A1	0.023 A1	0 A1	0.004 A1	0.001 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0.05 A1	0 A1	0 A1	0 A1	0 A1						0.171 A1

Prepared by: ..... Date: .....

Checked by: ..... Date: .....

Authorised by: Douglas Millican Date: .....

Edition 1

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

Line Ref.	Description	Ofwat Ref	Units	Field Type
	Project Data			
E3.0	Name			I
E3.1	Annual average resident connected population		000	I/C
E3.2	Annual average non-resident connected population		000	I/C
E3.3	Trade effluent load received by works		kg/COD/day	I/C
E3.4	Tanker load received by works		kg/COD/day	I/C
E3.5	Population equivalent of total load received		000	I/C
E3.6	Project Status			I
	Scope of Works			
E3.7	Sewerage		1/0	I
E3.8	Sewage Treatment		1/0	I
E3.9	Sludge Treatment		1/0	I
E3.10	Terminal Pumping Station		1/0	I
E3.11	Other (state details)		1/0	I
	Sewage Treatment - Treatability			
E3.12	Biological Oxygen Demand (BOD5) of influent		mg/l	I
E3.13	Chemical Oxygen Demand (COD) of influent		mg/l	I
E3.14	Total Organic Carbon (TOC) of influent		mg/l	I
E3.15	Suspended solids (SS) of influent		mg/l	I
E3.16	Ammoniacal Nitrogen (NH3) of influent		mg/l	I
	Sewage Treatment - Effluent Consent Standard			
E3.17	Suspended solids consent		mg/l	I
E3.18	BOD consent		mg/l	I
E3.19	COD consent		mg/l	I
E3.20	Ammonia consent		mg/l	I
E3.21	Phosphate consent		mg/l	I
E3.22	Compliance with effluent consent standard		%	I
	Sewage Treatment - Flow			
E3.23	Average daily flow in dry weather		Ml/d	I/C
E3.24	Ratio of daily maximum to to minimum flow		nr	I
	Treatment Works Category			
E3.25	Primary		1/0	I
E3.26	Secondary activated sludge		1/0	I
E3.27	Secondary biological		1/0	I
E3.28	Tertiary A1		1/0	I
E3.29	Tertiary A2		1/0	I
E3.30	Tertiary B1		1/0	I
E3.31	Tertiary B2		1/0	I
	Miscellaneous Data			
E3.32	Sea outfalls at works		1/0	I
E3.33	Terminal Pumping costs		1/0	I
E3.34	Own sludge		1/0	I
E3.35	Own sludge costs		1/0	I
E3.36	Sludge centre		1/0	I
E3.37	Sludge centre costs		1/0	I
	Total Cost Analysis			
E3.38	Annual charge		£m	I/C
E3.39	Public sector capital equivalent value		£m	I/C
E3.40	Estimated annual direct operating cost		£m	I/C
E3.41	Contract period		years	I
	Associated AuthorityCosts			
E3.42	Service charges SEPA		£m	I/C
E3.43	General and support expenditure		£m	I/C
E3.44	Terminal pumping station costs		£m	I/C
E3.45	Sludge costs		£m	I/C
E3.46	Authority operating costs associated with PPP		£m	I/C

Line Ref.	10 Project 1 Comment Necessary Y/N	Comment	20 Project 2 Comment Necessary Y/N	Comment	30 Project 3 Comment Necessary Y/N	Comment	40 Project 4 Comment Necessary Y/N	Comment	50 Project 5 Comment Necessary Y/N	Comment	60 Project 6 Comment Necessary Y/N	Comment	70 Project 7 Comment Necessary Y/N	Comment
E3.0														
E3.1	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag
E3.2	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag
E3.3	N	Based on unsettle	N	Based on unsettle	N	Based on unsettle	N	Based on unsettle	N	Based on unsettle	N	Based on unsettle	N	Based on unsettle
E3.4	N	Derived from Gen	N	Derived from Ger	N	Derived from Ge	N	Derived from Ge	N		N	Derived from Ge	N	
E3.5	N		N		N		N		N		N		N	
E3.6	N		N		N		N		N		N		N	
E3.7	N		N		N		N		N		N		N	
E3.8	N		N		N		N		N		N		N	
E3.9	N		N		N		N		N		N		N	
E3.10	N		N		N		N		N		N		N	
E3.11	N		N		N		N		N		N		N	
E3.12	N		N		N		N		N		N		N	
E3.13	N		N		N		N		N		N		N	
E3.14	N	TOC is not measu	N	TOC is not meas	N	TOC is not meas	N	TOC is not meas	N	TOC is not meas	N	TOC is not meas	N	TOC is not meas
E3.15	N		N		N		N		N		N		N	
E3.16	N	NH3 is not measu	N	NH3 is not meas	N	NH3 is not meas	N	NH3 is not meas	N		N	NH3 is not meas	N	NH3 is not meas
E3.17	N		N		N	No consent at wo	N	No consent at wo	N		N	No consent at wo	N	No consent at wo
E3.18	N		N		N		N		N		N		N	
E3.19	N	No consent at wor	N	No consent at wo	N		N		N		N		N	
E3.20	N	No consent at wor	N	No consent at wo	N		N	No consent at wo	N		N	No consent at wo	N	No consent at wo
E3.21	N	No consent at wor	N	No consent at wo	N	No consent at wo	N	No consent at wo	N		N	No consent at wo	N	No consent at wo
E3.22	N		N		N		N		N		N		N	
E3.23	N		N		N		N		N		N		N	
E3.24	N		N		N		N		N		N		N	
E3.25	N		N		N		N		N		N		N	
E3.26	N		N		N		N		N		N		N	
E3.27	N		N		N		N		N		N		N	
E3.28	N		N		N		N		N		N		N	
E3.29	N		N		N		N		N		N		N	
E3.30	N		N		N		N		N		N		N	
E3.31	N		N		N		N		N		N		N	
E3.32	N		N		N		N		N		N		N	
E3.33	N		N		N		N		N		N		N	
E3.34	N		N		N		N		N		N		N	
E3.35	N		N		N		N		N		N		N	
E3.36	N		N		N		N		N		N		N	
E3.37	N		N		N		N		N		N		N	
E3.38	N		N		N		N		N		N		N	
E3.39	N		N		N		N		N		N		N	
E3.40	N		N		N		N		N		N		N	
E3.41	N		N		N		N		N		N		N	
E3.42	N	Charges met by C	N	Charges met by (	N	Charges met by	N		N	Charges met by (	N	Charges met by (	N	Charges met by (
E3.43	N		N		N		N		N		N		N	
E3.44	N	Charges met by C	N	Charges met by (	N	Charges met by	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (
E3.45	N		N		N	Charges met by	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (
E3.46	N		N		N		N		N		N		N	

Line Ref.	80 Project 8 Comment Necessary Y/N	Comment	90 Project 9 Comment Necessary Y/N	Comment	100 Project 10 Comment Necessary Y/N	Comment	110 Project 11 Comment Necessary Y/N	Comment	120 Project 12 Comment Necessary Y/N	Comment	130 Project 13 Comment Necessary Y/N	Comment	140 Project 14 Comment Necessary Y/N	Comment
E3.0														
E3.1	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag
E3.2	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag
E3.3	N	Based on unsettle	N	Based on unsettle	N	Based on unsettle	N	Based on unsettle	N	Based on unsettle	N	Based on unsettle	N	Based on unsettle
E3.4	N	Derived from Ge	N		N	Derived from Ge	N	Derived from Ge	N	Derived from Ge	N		N	
E3.5	N		N		N		N		N		N		N	
E3.6	N		N		N		N		N		N		N	
E3.7	N		N		N		N		N		N		N	
E3.8	N		N		N		N		N		N		N	
E3.9	N		N		N		N		N		N		N	
E3.10	N		N		N		N		N		N		N	
E3.11	N		N		N		N		N		N		N	
E3.12	N		N		N		N		N		N		N	
E3.13	N		N		N		N		N		N		N	
E3.14	N	TOC is not meas	N	TOC is not meas	N	TOC is not meas	N	TOC is not meas	N	TOC is not meas	N	TOC is not meas	N	TOC is not meas
E3.15	N		N		N		N		N		N		N	
E3.16	N	NH3 is not meas	N	NH3 is not meas	N	NH3 is not meas	N		N		N		N	
E3.17	N	No consent at wo	N	No consent at wo	N	No consent at wo	N		N	No consent at wo	N	No consent at wo	N	No consent at wo
E3.18	N		N		N		N		N		N		N	
E3.19	N		N		N		N		N		N		N	
E3.20	N	No consent at wo	N	No consent at wo	N	No consent at wo	N	No consent at wo	N		N		N	
E3.21	N	No consent at wo	N	No consent at wo	N	No consent at wo	N	No consent at wo	N		N		N	
E3.22	N		N		N		N		N		N		N	
E3.23	N		N		N		N		N		N		N	
E3.24	N		N		N	Insufficient data	N		N		N		N	
E3.25	N		N		N		N		N		N		N	
E3.26	N		N		N		N		N		N		N	
E3.27	N		N		N		N		N		N		N	
E3.28	N		N		N		N		N		N		N	
E3.29	N		N		N		N		N		N		N	
E3.30	N		N		N		N		N		N		N	
E3.31	N		N		N		N		N		N		N	
E3.32	N		N		N		N		N		N		N	
E3.33	N		N		N		N		N		N		N	
E3.34	N		N		N		N		N		N		N	
E3.35	N		N		N		N		N		N		N	
E3.36	N		N		N		N		N		N		N	
E3.37	N		N		N		N		N		N		N	
E3.38	N		N		N		N		N		N		N	
E3.39	N		N		N		N		N		N		N	
E3.40	N		N		N		N		N		N		N	
E3.41	N		N		N		N		N		N		N	
E3.42	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (
E3.43	N		N		N		N		N		N		N	
E3.44	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (
E3.45	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (
E3.46	N		N		N		N		N		N		N	

Line Ref.	150 Project 15 Comment Necessary Y/N	Comment	160 Project 16 Comment Necessary Y/N	Comment	170 Project 17 Comment Necessary Y/N	Comment	180 Project 18 Comment Necessary Y/N	Comment	190 Project 19 Comment Necessary Y/N	Comment	200 Project 20 Comment Necessary Y/N	Comment	210 Project 21 Comment Necessary Y/N	Comment
E3.0														
E3.1	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Exclusively a slu	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag
E3.2	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag	N	Exclusively a slu	N	Based on Drainag	N	Based on Drainag	N	Based on Drainag
E3.3	N	Based on unsettle	N	Based on unsettle	N	Based on unsettle	N	Exclusively a slu	N	Based on unsettle	N	Based on unsettle	N	Based on unsettle
E3.4	N		N	Derived from Ge	N		N	Exclusively a slu	N		N		N	Derived from Ge
E3.5	N		N		N		N	Exclusively a slu	N		N		N	Same confidence
E3.6	N		N		N		N		N		N		N	
E3.7	N		N		N		N		N		N			
E3.8	N		N		N		N		N		N			
E3.9	N		N		N		N		N		N			
E3.10	N		N		N		N		N		N			
E3.11	N		N		N		N		N		N			
													#N/A	
E3.12	N		N		N		N	Exclusively a slu	N		N		N	Same confidence
E3.13	N		N		N		N	Exclusively a slu	N		N		N	Same confidence
E3.14	N	TOC is not meas	N	TOC is not meas	N	TOC is not meas	N	Exclusively a slu	N	TOC is not meas	N	TOC is not meas	N	TOC is not meas
E3.15	N		N		N		N	Exclusively a slu	N		N		N	Same confidence
E3.16	N		N	NH3 is not meas	N		N	Exclusively a slu	N		N		N	Same confidence
E3.17	N	No consent at wo	N	No consent at wo	N		N	No consent at wo	N	No consent at wo	N	No consent at wo	N	
E3.18	N		N		N		N	No consent at wo	N		N		N	
E3.19	N		N		N		N	No consent at wo	N		N		N	
E3.20	N		N	No consent at wo	N		N	No consent at wo	N		N		N	No consent at wo
E3.21	N		N	No consent at wo	N	No consent at wo	N	No consent at wo	N	No consent at wo	N	No consent at wo	N	No consent at wo
E3.22	N		N		N		N	No consent at wo	N		N		N	
E3.23	N		N		N		N	Exclusively a slu	N		N		N	Same confidence
E3.24	N		N		N		N	Exclusively a slu	N	Periods of zero fl	N	Periods of zero fl	N	Periods of zero fl
E3.25	N		N		N		N	Exclusively a slu	N		N		N	
E3.26	N		N		N		N	Exclusively a slu	N		N		N	
E3.27	N		N		N		N	Exclusively a slu	N		N		N	
E3.28	N		N		N		N	Exclusively a slu	N		N		N	
E3.29	N		N		N		N	Exclusively a slu	N		N		N	
E3.30	N		N		N		N	Exclusively a slu	N		N		N	
E3.31	N		N		N		N	Exclusively a slu	N		N		N	
E3.32	N		N		N		N		N		N		N	
E3.33	N		N		N		N		N		N		N	
E3.34	N		N		N		N		N		N		N	
E3.35	N		N		N		N		N		N		N	
E3.36	N		N		N		N		N		N		N	
E3.37	N		N		N		N		N		N		N	
E3.38	N		N		N		N		N		N		N	
E3.39	N		N		N		N		N		N		N	Same confidence
E3.40	N		N		N		N		N		N		N	Same confidence
E3.41	N		N		N		N		N		N		N	
E3.42	N	Charges met by (	N	Charges met by (	N		N	Charges met by (	N		N		N	
E3.43	N		N		N		N		N		N		N	Charges met by (
E3.44	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (	N	Charges met by (
E3.45	N	Charges met by (	N	Charges met by (	N	Charges met by (	N		N	Charges met by (	N	Charges met by (	N	Charges met by (
E3.46	N		N		N		N		N		N		N	

Line Ref.	220 Project 22 Comment Necessary Y/N	Comment	230 Project 23 Comment Necessary Y/N	Comment	240 Project 24 Comment Necessary Y/N	Comment	250 Project 25 Comment Necessary Y/N	Comment	199 Total Comment Necessary Y/N	Comment
E3.0										
E3.1	#N/A		#N/A		#N/A		#N/A		N	Based on Drainage Operational A
E3.2	#N/A		#N/A		#N/A		#N/A		N	Based on Drainage Operational A
E3.3	#N/A		#N/A		#N/A		#N/A		N	Based on unsettled COD data
E3.4	#N/A		#N/A		#N/A		#N/A		N	Derived from Gemini
E3.5	#N/A		#N/A		#N/A		#N/A		N	
E3.6	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.7	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.8	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.9	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.10	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.11	#N/A		#N/A		#N/A		#N/A		#N/A	
	#N/A		#N/A		#N/A		#N/A			
E3.12	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.13	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.14	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.15	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.16	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.17	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.18	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.19	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.20	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.21	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.22	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.23	#N/A		#N/A		#N/A		#N/A		N	
E3.24	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.25	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.26	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.27	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.28	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.29	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.30	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.31	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.32	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.33	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.34	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.35	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.36	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.37	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.38	#N/A		#N/A		#N/A		#N/A		N	
E3.39	#N/A		#N/A		#N/A		#N/A		N	
E3.40	#N/A		#N/A		#N/A		#N/A		N	
E3.41	#N/A		#N/A		#N/A		#N/A		#N/A	
E3.42	#N/A		#N/A		#N/A		#N/A		N	
E3.43	#N/A		#N/A		#N/A		#N/A		N	
E3.44	#N/A		#N/A		#N/A		#N/A		N	Charges met by Concessionaire
E3.45	#N/A		#N/A		#N/A		#N/A		N	
E3.46	#N/A		#N/A		#N/A		#N/A		N	

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
E3.38 should equal thesum of E1b.37+E2b.37	N	No solution required
E3.40 should equal the sum of E1b.4+E2b.4	Y	Please amend numbers so they reconcile

Prepared by : .... Date: ....

Checked by : .... Date: ....

Authorised by : Douglas Millican Date: ....

Edition 1

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

Line Ref.	Description	Ofwat Ref	Units	Field Type
	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

10	20	30	40	50	60	100	120	130	140	150	160	170	200	220
Number of Own Sources						Total Sources	Own Source Outputs						Total Source Outputs	CG
Area 1	Area 2	Area 3	Area 4	Area 5	Area 6		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6		
number						number	average daily output (Ml/d)						Ml/d	
NW	NE	SE	SW				NW	NE	SE	SW				
64	17	28	76			185	72.1	216.2	340.1	1134.6			1763	B4
92	5	6	5			108	54.4	3	9	0			66.4	B4
106	30	55	81			272	25.1	192.2	10.4	257.9			485.6	B4
39	27	22	10			98	25.7	16.4	26.1	3.3			71.5	B4
301	79	111	172	0	0	663	177.3	427.8	385.6	1395.8	0	0	2386.5	B4
0	0	0	0			0	0	0	0	0			0	A1
0	0	0	0			0	0	0	0	0			0	A1

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

10	20	30	40	50	60	100
Proportional Breakdown of Source output produced						Proportion of Own Source Output
Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	
0.03	0.09	0.14	0.48	0.00	0.00	0.74
0.02	0.00	0.00	0.00	0.00	0.00	0.03
0.01	0.08	0.00	0.11	0.00	0.00	0.20
0.01	0.01	0.01	0.00	0.00	0.00	0.03
0.07	0.18	0.16	0.58	0.00	0.00	1.00

	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			

10	20	30	40	50	60	100	120	150	170
Peak Ratio & Pumping Head						Average Peak Ratio	CG	Average Pumping Head	CG
Area 1	Area 2	Area 3	Area 4	Area 5	Area 6				
1.525	1.282	1.281	1.215			1.261	C4		
24.243	31.849	13.129	19.359					20.954	C4

	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

10	20	30	40	50	60	100	120	130	140	150	160	170	200	220
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	Ml/d	CG
57	14	22	7			100	21.37	17.24	30.01	401.05			469.668	B4
94	2	5	5			106	13.27	0.93	66.3	12.3			92.8	B4
35	11	7	5			58	88.41	201.62	139.84	350			779.867	B4
40	13	14	40			107	54.24	208.03	149.47	632.44			1044.184	B4
0	0	0	0			0	0	0	0	0			0	B4
226	40	48	57	0	0	371								
							177.29	427.82	385.62	1395.8	0	0	2386.519	B4

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

10	20	30	40	50	60	100
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	0.17	0.00	0.00	0.20
0.01	0.00	0.03	0.01	0.00	0.00	0.04
0.04	0.08	0.06	0.15	0.00	0.00	0.33
0.02	0.09	0.06	0.27	0.00	0.00	0.44
0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.07	0.18	0.16	0.58	0.00	0.00	1.00

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

10	20	30	40	50	60	100	120	130	140	150	160	170	200
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)
188	11	15	18			232	0.014	0.001	0.002	0.001			0.018
13	9	5	3			30	0.005	0.004	0.003	0			0.012
11	8	10	5			34	0.011	0.009	0.01	0.005			0.035
8	1	5	7			21	0.013	0.002	0.009	0.015			0.039
4	4	7	13			28	0.013	0.019	0.027	0.066			0.125
2	3	4	2			11	0.019	0.045	0.052	0.025			0.141
0	4	1	4			9	0	0.1	0.026	0.087			0.213
0	0	1	3			4	0	0	0.034	0.136			0.17
0	0	0	2			2	0	0	0	0.247			0.247
226	40	48	57	0	0	371							
							0.075	0.18	0.163	0.582	0	0	1

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

10	20	30	40	50	60	100
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	24.4	40.3	0			64.7
8	0	0	56.7			64.7
-8	24.4	40.3	-56.7	0	0	0
169.3	452.2	425.9	1339.1	0	0	2386.5

net internal change should be zero

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

10	20	30	40	50	60	100
Operating cost by area						Total
Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	
4640	763	192	473			6068
968	492	209	616			2285
1081	723	431	305			2540
1424	414	443	1576			3857
715	1427	1386	4529			8057
8828	3819	2661	7499	0	0	22807
1121	2102	3059	646			6928
0	2650	466	2907			6023
0	0	871	2950			3821
0	0	0	3114			3114
1121	4752	4396	9617	0	0	19886
9949	8571	7057	17116	0	0	42693

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

Prepared by: ..... Date: .....

Checked by: ..... Date: .....

Authorised by: Geoff Aitkenhead Date: .....

Edition 2

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

Line Ref.	Description	Ofwat Ref	Units	Field Type
	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

220 **Total Source Outputs**

Comment Necessary Y/N	Comment		General		Benchmarking A1		Benchmarking A2	
		A1	G	A1	G	A1	G
		A2	G	A2	N	A2	G
		A3	G	A3	N	A3	N
N	Data is classed as B4 because output from each s	A4	N	A4	N	A4	N
N	Data is classed as B4 because output from each s	AX	G	AX	G	AX	G
N	Data is classed as B4 because output from each s	B2	G	B2	N	B2	N
N	Data is classed as B4 because output from each s	B3	G	B3	N	B3	N
N	Data is classed as B4 because output from each s	B4	N	B4	N	B4	N
N		BX	G	BX	N	BX	N
N		C2	N	C2	N	C2	N
		C3	N	C3	N	C3	N
		C4	N	C4	N	C4	N
		C5	N	C5	N	C5	N
		CX	N	CX	N	CX	N
		M	N	M	N	M	N
		N	N	N	N	N	N
		D3	N	D3	N	D3	N
		D4	N	D4	N	D4	N
		D5	N	D5	N	D5	N
		D6	N	D6	N	D6	N
N	Pumping head data not held on	DX	N	DX	N	DX	N

120 **Average Peak Ratio**

Comment Necessary Y/N		Comment
N	120	Only two years of con

170 **Average Pumping Head**

220 **Total volume Dist'n input Ml/d**

Comment Necessary Y/N	Comment
N	Accuracy remains at band 4 due to accuracy of DI figures (Line A2.38) used to calculate volumes
N	Accuracy remains at band 4 due to accuracy of DI figures (Line A2.38) used to calculate volumes
N	Accuracy remains at band 4 due to accuracy of DI figures (Line A2.38) used to calculate volumes
N	Accuracy remains at band 4 due to accuracy of DI figures (Line A2.38) used to calculate volumes
N	Accuracy remains at band 4 due to accuracy of DI figures (Line A2.38) used to calculate volumes
N	Accuracy remains at band 4 due to accuracy of DI figures (Line A2.38) used to calculate volumes

Issues with data	Problem ?		Solution
E4.12 should equal 1.0	N	100	**No solution required**
E4.22 (Col 100) should equal E4.39 (Col 100)	N	100	**No solution required**
E4.29 should equal 1.0	N	100	**No solution required**
E4.40 should equal 1.0	N	200	**No solution required**
E4.45 should equal 0	N	100	**No solution required**

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

Prepared by: ..... Date: .....

Checked by: ..... Date: .....

Authorised by: Geoff Aitkenhead Date: .....

Edition 2

SCOTTISH WATER

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 1 CG	20 2 CG	30 3 CG	40 4 CG	50 5 CG	60 6 CG	70 7 CG	80 8 CG	90 9 CG	100 10 CG	110 11 CG	120 12 CG	130 13 CG	140 14 CG	150 15 CG	160 16 CG
Works Size																				
E5.0	Name	-		I	Inverness	Badentinan	Clatto	Glendevon	Glenfarg	Invercannie	Lintrathen	Mannofield	Turriff	Alnwickhill	Castle Moffat	Fairmilehead	Marchbank	Pateshill	Rosebery	Balmore
E5.1	Average day demand	-	Ml/d	I	26.54 B3	17.95 A2	67.07 B2	74.3 B3	53.06 B3	45.35 B3	32.35 A2	43.57 A2	30.61 A1	63.08 B3	28.82 B3	80.02 B3	43.03 B3	14.09 B3	37.74 B3	193.7 B3
E5.2	Peak day demand	-	Ml/d	I	28.57 B3	18.65 B3	72.39 B2	78.39 B3	58 B3	49.71 B3	35.4 A2	48.96 A2	32.64 A2	72.3 B3	32.72 B3	92.21 B3	47.86 B3	16.52 B3	43.51 B3	267 B3
E5.3	Works Capacity		Ml/d	I	34 A2	27 A1	90 B2	91 A1	85 A1	70 A3	42 A1	45 A2	42 A1	74.4 A1	32 A1	122.7 A1	50 B3	27.3 A1	40.9 A1	364 A1
E5.4	Headroom	-	Ml/d	C	5.43 B3	8.35 B3	17.61 B2	12.61 B3	27 B3	20.29 B3	6.6 A2	-3.96 A2	9.36 A2	2.1 B3	-0.72 B3	30.49 B3	2.14 B3	10.78 B3	-2.61 B3	97 B3
Raw Water Source																				
E5.5	Source type	-	Type	I	L	BHS	IR	IR	IR	RB	RB	RB	RB	IR	IR	IR	IR	IR	IR	RB
E5.6	Average turbidity	-	ntu	I	0 A1	0.34 A1	1.86 A1	0.97 A1	2.15 A1	0.31 A1	4.75 A1	0.59 A1	0.66 A1	0.97 A1	1.57 A1	1.09 A1	1.5 A1	2.7 A1	5.2 A1	0.45 A1
E5.7	Peak turbidity	-	ntu	I	0 A1	0.58 A1	2.33 A1	1.05 A1	2.26 A1	2.47 A1	16.5 A1	11.64 A1	4.27 A1	1.1 A1	2 A1	2.4 A1	2.4 A1	3.7 A1	11.1 A1	0.6 A1
E5.8	Average colour	-	hazen	I	6.5 A1	4 A1	14.33 A1	20.89 A1	16.5 A1	10.32 A1	14.33 A1	7.71 A1	9.46 A1	21.67 A1	45 A1	18.09 A1	20.5 A1	102.2 A1	25.43 A1	15 A1
E5.9	Peak colour	-	hazen	I	10 A1	7 A1	19 A1	31 A1	18 A1	49 A1	23 A1	49 A1	46 A1	23 A1	58 A1	24 A1	21 A1	124 A1	39 A1	17 A1
E5.10	Average parameter 'a'	-	mg/l	I	0.017 A1	0.038 A1	0.1518 A1	0.426 A1	0.0512 A1	0.134 A1	0.516 A1	0.148 A1	0.311 A1	0.117 A1	0.142 A1	0.104 A1	0.649 A1	0.412 A1	0.206 A1	0.042 A1
E5.11	Peak parameter 'a'	-	mg/l	I	0.017 A1	0.08 A1	0.22 A1	0.102 A1	0.088 A1	2.93 A1	3.773 A1	6.77 A1	13.631 A1	0.124 A1	0.176 A1	0.156 A1	1.227 A1	0.506 A1	0.765 A1	0.063 A1
E5.12	Average parameter 'b'	-	mg/l	I	0.0093 A1	0.0036 A1	0.031 A1	0.0102 A1	0.032 A1	0.0028 A1	0.127 A1	0.054 A1	0.078 A1	0.01 A1	0.025 A1	0.011 A1	0.088 A1	0.0157 A1	0.0824 A1	0.007 A1
E5.13	Peak parameter 'b'	-	mg/l	I	0.018 A1	0.011 A1	0.067 A1	0.021 A1	0.112 A1	0.0274 A1	0.927 A1	3.8271 A1	5.573 A1	0.0102 A1	0.0684 A1	0.0153 A1	0.172 A1	0.022 A1	0.207 A1	0.012 A1
E5.14	Cryptosporidium risk assessment	-	high/med/low	I	Low A1	Medium A1	Low A1	Low A1	Low A1	Low A1	Low A1	Low A1	Low A1	Low A1	Low A1	Low A1	Low A1	Low A1	Low A1	Low A1
Compliance and Performance																				
E5.15	Coliform: samples exceeding compliance value	-	%	I	0 A1	0.38 A1	0 A1	0 A1	0 A1	0.18 A1	0 A1	0 A1	0.25 A1	1.96 A1	0 A1	1.46 A1	0 A1	0 A1	1.5 A1	0 A1
E5.16	Turbidity: 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	6.67 A1	0 A1	0 A1	0 A1	12.5 A1	0 A1
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 A1	0 A1	0 A1	0 A1
E5.18	Aluminium: 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 A1	0 A1	0 A1	0 A1
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 A1	0 A1	0 A1	0 A1
E5.20	Manganese: samples exceeding threshold value	-	%	I	0 A1	0 A1	10 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
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 A1	0 A1	0 A1	0 A1
E5.22	Simple disinfection and filtration (W1)	-	1/0	I	0 A1	0 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
E5.23	Single stage physical or chemical treatment (W2)	-	1/0	I	0 A1	1 A1	1 A1	1 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	1 A1	1 A1	0 A1	0 A1	1 A1
E5.24	More than one stage of treatment excl W4 (W3)	-	1/0	I	1 A1	0 A1	0 A1	0 A1	1 A1	1 A1	0 A1	1 A1	1 A1	0 A1	1 A1	0 A1	0 A1	1 A1	1 A1	0 A1
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 A1	0 A1	0 A1	0 A1
Miscellaneous Data																				
E5.26	Intake works on site	-	1/0	I	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
E5.27	Raw water pumping on site	-	1/0	I	0 A1	1 A1	1 A1	0 A1	0 A1	1 A1	1 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	1 A1
E5.28	Treated water pumping on site	-	1/0	I	1 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	1 A1	1 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	1 A1
E5.29	Waterworks own sludge treatment on site	-	1/0	I	0 A1	0 A1	0 A1	1 A1	1 A1	0 A1	1 A1	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	1 A1	1 A1	0 A1
E5.30	Waterworks sludge discharged off site	-	1/0	I	1 A1	0 A1	1 A1	0 A1	0 A1	1 A1	1 A1	1 A1	1 A1	1 A1	0 A1	1 A1	1 A1	0 A1	0 A1	1 A1
Works Cost																				
E5.31	Employment direct costs	-	£'000	I	93 B3	60 B3	116 B3	198 B3	154 B3	239 B3	147 B3	154 B3	168 B3	247 B3	334 B3	370 B3	140 B3	307 B3	384 B3	254 B3
E5.32	Power direct costs	-	£'000	I	68 B3	229 B3	25 B3	13 B3	148 B3	57 B3	8 B3	180 B3	199 B3	14 B3	204 B3	56 B3	38 B3	57 B3	54 B3	627 B3
E5.33	Hired and contracted services direct costs	-	£'000	I	7 B3	86 B3	19 B3	16 B3	27 B3	36 B3	42 B3	23 B3	53 B3	38 B3	83 B3	38 B3	39 B3	47 B3	40 B3	13 B3
E5.34	Materials and consumables direct costs	-	£'000	I	43 B3	133 B3	116 B3	233 B3	218 B3	57 B3	65 B3	134 B3	124 B3	45 B3	120 B3	154 B3	45 B3	128 B3	130 B3	395 B3
E5.35	Service charges SEPA direct costs	-	£'000	I	2 B3	2 B3	0 B3	0 B3	0 B3	0 B3	0 B3	0 B3	0 B3	0 B3	8 B3	0 B3	3 B3	0 B3	0 B3	0 B3
E5.36	Other direct costs	-	£'000	I	0 B3	30 B3	0 B3	2 B3	31 B3	2 B3	7 B3	0 B3	0 B3	-3 B3	30 B3	10 B3	-31 B3	21 B3	12 B3	21 B3
E5.37	Total direct costs	-	£'000	C	213 B3	540 B3	276 B3	462 B3	578 B3	391 B3	269 B3	491 B3	544 B3	341 B3	779 B3	628 B3	234 B3	560 B3	620 B3	1310 B3
E5.38	General and support expenditure	-	£'000	I	92 B3	276 B3	149 B3	239 B3	339 B3	216 B3	137 B3	314 B3	347 B3	125 B3	312 B3	243 B3	105 B3	215 B3	234 B3	423 B3
E5.39	Functional Expenditure	-	£'000	C	305 B3	816 B3	425 B3	701 B3	917 B3	607 B3	406 B3	805 B3	891 B3	466 B3	1091 B3	871 B3	339 B3	775 B3	854 B3	1733 B3
E5.40	Estimated intake and raw water pumping direct costs	-	£'000	I	0 N	0 M	0 M	0 N	0 N	0 M	0 M	0 N	0 M	0 N	0 N	0 N	0 N	0 N	0 N	0 M
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 N	0 N	0 N	0 N
E5.42	Estimated waterworks sludge direct costs	-	£'000	I	2 B3	4 B3	16 B3	25 B3	25 B3	27 B3	22 B3	20 B3	27 B3	43 B3	71 B3	61 B3	26 B3	57 B3	64 B3	58 B3

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Edition 1

SCOTTISH WATER

ANNUAL RETURN INFORMATION REQUIREMENT

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	170 17 CG	180 18 CG	190 19 CG	200 20 CG	210 21 CG	220 22 CG	230 23 CG	240 24 CG	250 25 CG	260 26 CG
	Works Size													
E5.0	Name	-		I	Blairlinnans New	Bradan	Camphill	Camps	Carron Valley	Daer	Milngavie	Muirdykes	Overton Greenock	Turret
E5.1	Average day demand	-	Ml/d	I	62.04 B2	101.6 B3	31.43 B3	27.13 B3	104.5 B3	121.51 B3	397.58 B3	42.79 B3	36.89 A1	67.04 B3
E5.2	Peak day demand	-	Ml/d	I	76.56 B2	110.77 B3	33.6 B3	29.25 B3	117 B3	128.78 B3	422.45 B3	51.09 B3	39.11 A1	77 B3
E5.3	Works Capacity		Ml/d	I	90.9 A1	142 B3	45.6 A1	33.2 B2	125 A1	142 B3	489.5 B2	60 A1	62.5 A1	85.2 A1
E5.4	Headroom	-	Ml/d	C	14.34 B2	31.23 B3	12 B3	3.95 B3	8 B3	13.22 B3	67.05 B3	8.91 B3	23.39 A1	8.2 B3
	Raw Water Source													
E5.5	Source type	-	Type	I	RB	IR	IR	IR	IR	IR	IR	IR	IR	IR
E5.6	Average turbidity	-	ntu	I	3.85 A1	1.63 A1	1.1 A1	1.01 A1	0.1 A1	1.32 A1	0.31 A1	2.75 A1	5.3 A1	1.36 A1
E5.7	Peak turbidity	-	ntu	I	9.91 A1	7.8 A1	2.43 A1	1.6 A1	0.1 A1	3.3 A1	0.37 A1	3 A1	32.4 A1	1.36 A1
E5.8	Average colour	-	hazen	I	16.64 A1	50 A1	56.8 A1	22.79 A1	3 A1	38.55 A1	13.06 A1	41.67 A1	73.81 A1	36.5 A1
E5.9	Peak colour	-	hazen	I	20 A1	61 A1	75 A1	29 A1	3 A1	44 A1	16 A1	46 A1	82 A1	50 A1
E5.10	Average parameter 'a'	-	mg/l	I	0.24 A1	0.514 A1	0.269 A1	0.113 A1	0.027 A1	0.12 A1	0.025 A1	0.199 A1	0.718 A1	0.162 A1
E5.11	Peak parameter 'a'	-	mg/l	I	0.846 A1	1.034 A1	0.559 A1	0.17 A1	0.027 A1	0.274 A1	0.061 A1	0.296 A1	2.704 A1	0.41 A1
E5.12	Average parameter 'b'	-	mg/l	I	0.12 A1	0.143 A1	0.682 A1	0.044 A1	0.024 A1	0.0402 A1	0.0051 A1	0.066 A1	0.194 A1	0.0169 A1
E5.13	Peak parameter 'b'	-	mg/l	I	0.427 A1	0.905 A1	0.982 A1	0.156 A1	0.03 A1	0.14 A1	0.006 A1	0.141 A1	1.792 A1	0.0425 A1
E5.14	Cryptosporidium risk assessment	-	high/med/low	I	Low A1	Low A1	Low A1	Low A1	Low A1	Low A1	High A1	Low A1	Low A1	Low A1
	Compliance and Performance													
E5.15	Coliform: samples exceeding compliance value	-	%	I	0.25 A1	0 A1	0.25 A1	0 A1	0 A1	0 A1	0.14 A1	0 A1	0 A1	0 A1
E5.16	Turbidity: samples exceeding threshold value	-	%	I	0 A1	6.9 A1	0.95 A1	0 A1	0 A1	0.35 A1	0.47 A1	0 A1	0 A1	0 A1
E5.17	THM: samples exceeding threshold value	-	%	I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	2.72 A1	0 A1	0 A1	0 A1
E5.18	Aluminium: samples exceeding threshold value	-	%	I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	1.15 A1	0 A1	0 A1
E5.19	Iron: samples exceeding threshold value	-	%	I	0 A1	3.13 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
E5.20	Manganese: samples exceeding threshold value	-	%	I	3.28 A1	8.04 A1	27.4 A1	1.47 A1	0 A1	8.11 A1	0 A1	3.97 A1	0 A1	33.33 A1
	Processes													
E5.21	Simple disinfection only	-	1/0	I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1
E5.22	Simple disinfection and filtration (W1)	-	1/0	I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
E5.23	Single stage physical or chemical treatment (W2)	-	1/0	I	1 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	1 A1
E5.24	More than one stage of treatment excl W4 (W3)	-	1/0	I	0 A1	1 A1	1 A1	0 A1	1 A1	1 A1	0 A1	1 A1	1 A1	0 A1
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
	Miscellaneous Data													
E5.26	Intake works on site	-	1/0	I	0 A1	1 A1	0 A1	0 A1	0 A1	1 A1	1 A1	0 A1	0 A1	0 A1
E5.27	Raw water pumping on site	-	1/0	I	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
E5.28	Treated water pumping on site	-	1/0	I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	1 A1	1 A1	0 A1
E5.29	Waterworks own sludge treatment on site	-	1/0	I	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	0 A1	1 A1	1 A1	1 A1
E5.30	Waterworks sludge discharged off site	-	1/0	I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
	Works Cost													
E5.31	Employment direct costs	-	£'000	I	143 B3	267 B3	143 B3	82 B3	185 B3	184 B3	766 B3	182 B3	144 B3	147 B3
E5.32	Power direct costs	-	£'000	I	47 B3	89 B3	15 B3	39 B3	166 B3	30 B3	41 B3	72 B3	44 B3	695 B3
E5.33	Hired and contracted services direct costs	-	£'000	I	55 B3	313 B3	10 B3	10 B3	84 B3	75 B3	-12 B3	62 B3	72 B3	45 B3
E5.34	Materials and consumables direct costs	-	£'000	I	101 B3	310 B3	144 B3	51 B3	331 B3	246 B3	276 B3	129 B3	121 B3	153 B3
E5.35	Service charges SEPA direct costs	-	£'000	I	2 B3	1 B3	5 B3	0 B3	3 B3	4 B3	1 B3	0 B3	3 B3	3 B3
E5.36	Other direct costs	-	£'000	I	0 B3	0 B3	0 B3	0 B3	5 B3	0 B3	3 B3	0 B3	2 B3	3 B3
E5.37	Total direct costs	-	£'000	C	348 B3	980 B3	317 B3	182 B3	774 B3	539 B3	1075 B3	445 B3	386 B3	1046 B3
E5.38	General and support expenditure	-	£'000	I	99 B3	267 B3	93 B3	54 B3	234 B3	156 B3	305 B3	129 B3	110 B3	345 B3
E5.39	Functional Expenditure	-	£'000	C	447 B3	1247 B3	410 B3	236 B3	1008 B3	695 B3	1380 B3	574 B3	496 B3	1391 B3
E5.40	Estimated intake and raw water pumping direct costs	-	£'000	I	0 N	0 N	0 N	0 M	0 N	0 N	0 N	0 N	0 N	0 N
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
E5.42	Estimated waterworks sludge direct costs	-	£'000	I	64 B3	260 B3	33 B3	22 B3	92 B3	85 B3	136 B3	76 B3	76 B3	58 B3

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Edition 1

SCOTTISH WATER

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		140		150		160	
					1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16	
					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	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment
	Works Size																																	
E5.0	Name	-		I																														
E5.1	Average day demand	-	Ml/d	I	N		N		#N/A		N		N		N		N		N		N		N		N		N		N		N		N	
E5.2	Peak day demand	-	Ml/d	I	N		N		#N/A		N		N		N		N		N		N		N		N		N		N		N		N	
E5.3	Works Capacity	-	Ml/d	I	N		N		#N/A		N		N		N		N		N		N		N		N		N		N		N		N	
E5.4	Headroom	-	Ml/d	C	N		N		#N/A		N		N		N		N		N		N		N		N		N		N		N		N	
	Raw Water Source																																	
E5.5	Source type	-	Type	I	#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A	
E5.6	Average turbidity	-	ntu	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.7	Peak turbidity	-	ntu	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.8	Average colour	-	hazen	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.9	Peak colour	-	hazen	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.10	Average parameter 'a'	-	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.11	Peak parameter 'a'	-	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.12	Average parameter 'b'	-	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.13	Peak parameter 'b'	-	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.14	Cryptosporidium risk assessment	-	high/med/low	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
	Compliance and Performance																																	
E5.15	Coliform: samples exceeding compliance value	-	%	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.16	Turbidity: samples exceeding threshold value	-	%	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.17	THM: samples exceeding threshold value	-	%	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.18	Aluminium: samples exceeding threshold value	-	%	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.19	Iron: samples exceeding threshold value	-	%	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.20	Manganese: samples exceeding threshold value	-	%	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
	Processes																																	
E5.21	Simple disinfection only	-	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.22	Simple disinfection and filtration (W1)	-	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.23	Single stage physical or chemical treatment (W2)	-	1/0	I	N		N		N		N		N		N		N		N		N		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		N		N		N		N		N		N		N		N		N	
E5.25	Complex treatment, including Microfiltration (W4)	-	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
	Miscellaneous Data																																	
E5.26	Intake works on site	-	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.27	Raw water pumping on site	-	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.28	Treated water pumping on site	-	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.29	Waterworks own sludge treatment on site	-	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.30	Waterworks sludge discharged off site	-	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
	Works Cost																																	
E5.31	Employment direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.32	Power direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.33	Hired and contracted services direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.34	Materials and consumables direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.35	Service charges SEPA direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.36	Other direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.37	Total direct costs	-	£'000	C	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.38	General and support expenditure	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.39	Functional Expenditure	-	£'000	C	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	
E5.40	Estimated intake and raw water pumping direct costs	-	£'000	I	N	Please refer to ge	N	Please refer to gene	N	Please refer to gen	N	Please refer to gener	N	Please refer to general c	N	Please refer to general con	N	Please refer to gene	N	Please refer to ger	N	Please refer to gene	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to gener	N	Please refer to gener	N	Please refer to genera	
E5.41	Estimated treated water pumping direct costs		£'000	I	N	Please refer to ge	N	Please refer to gene	N	Please refer to gen	N	Please refer to gener	N	Please refer to general c	N	Please refer to general con	N	Please refer to gene	N	Please refer to ger	N	Please refer to gene	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to gener	N	Please refer to gener	N	Please refer to genera	
E5.42	Estimated waterworks sludge direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N		N		N		N	

Prepared by: ..... Date: .....

Checked by: ..... Date: .....

Authorised by: Geoff Aitkenhead Date: .....

Edition 1

SCOTTISH WATER

ANNUAL RETURN INFORMATION REQUIREMENT

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	170 17 Comment Necessary Y/N	170 17 Comment	180 18 Comment Necessary Y/N	180 18 Comment	190 19 Comment Necessary Y/N	190 19 Comment	200 20 Comment Necessary Y/N	200 20 Comment	210 21 Comment Necessary Y/N	210 21 Comment	220 22 Comment Necessary Y/N	220 22 Comment	230 23 Comment Necessary Y/N	230 23 Comment	240 24 Comment Necessary Y/N	240 24 Comment	250 25 Comment Necessary Y/N	250 25 Comment	260 26 Comment Necessary Y/N	260 26 Comment
Works Size																								
E5.0	Name	-		I																				
E5.1	Average day demand	-	Mld	I	#N/A		N		N		N		N		N		N		N		N		N	
E5.2	Peak day demand	-	Mld	I																				
E5.3	Works Capacity	-	Mld	I	N		N		N		#N/A		N		N		#N/A		N		N		N	
E5.4	Headroom	-	Mld	C	#N/A		N		N		N		N		N		N		N		N		N	
Raw Water Source																								
E5.5	Source type	-	Type	I	#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A	
E5.6	Average turbidity	-	ntu	I	N		N		N		N		N		N		N		N		N		N	
E5.7	Peak turbidity	-	ntu	I	N		N		N		N		N		N		N		N		N		N	
E5.8	Average colour	-	hazen	I	N		N		N		N		N		N		N		N		N		N	
E5.9	Peak colour	-	hazen	I	N		N		N		N		N		N		N		N		N		N	
E5.10	Average parameter 'a'	-	mg/l	I	N		N		N		N		N		N		N		N		N		N	
E5.11	Peak parameter 'a'	-	mg/l	I	N		N		N		N		N		N		N		N		N		N	
E5.12	Average parameter 'b'	-	mg/l	I	N		N		N		N		N		N		N		N		N		N	
E5.13	Peak parameter 'b'	-	mg/l	I	N		N		N		N		N		N		N		N		N		N	
E5.14	Cryptosporidium risk assessment	-	high/med/low	I	N		N		N		N		N		N		N		N		N		N	
Compliance and Performance																								
E5.15	Coliform: samples exceeding compliance value	-	%	I	N		N		N		N		N		N		N		N		N		N	
E5.16	Turbidity: samples exceeding threshold value	-	%	I	N		N		N		N		N		N		N		N		N		N	
E5.17	THM: samples exceeding threshold value	-	%	I	N		N		N		N		N		N		N		N		N		N	
E5.18	Aluminium: samples exceeding threshold value	-	%	I	N		N		N		N		N		N		N		N		N		N	
E5.19	Iron: samples exceeding threshold value	-	%	I	N		N		N		N		N		N		N		N		N		N	
E5.20	Manganese: samples exceeding threshold value	-	%	I	N		N		N		N		N		N		N		N		N		N	
Processes																								
E5.21	Simple disinfection only	-	1/0	I	N		N		N		N		N		N		N		N		N		N	
E5.22	Simple disinfection and filtration (W1)	-	1/0	I	N		N		N		N		N		N		N		N		N		N	
E5.23	Single stage physical or chemical treatment (W2)	-	1/0	I	N		N		N		N		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		N		N		N		N	
E5.25	Complex treatment, including Microfiltration (W4)	-	1/0	I	N		N		N		N		N		N		N		N		N		N	
Miscellaneous Data																								
E5.26	Intake works on site	-	1/0	I	N		N		N		N		N		N		N		N		N		N	
E5.27	Raw water pumping on site	-	1/0	I	N		N		N		N		N		N		N		N		N		N	
E5.28	Treated water pumping on site	-	1/0	I	N		N		N		N		N		N		N		N		N		N	
E5.29	Waterworks own sludge treatment on site	-	1/0	I	N		N		N		N		N		N		N		N		N		N	
E5.30	Waterworks sludge discharged off site	-	1/0	I	N		N		N		N		N		N		N		N		N		N	
Works Cost																								
E5.31	Employment direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N	
E5.32	Power direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N	
E5.33	Hired and contracted services direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N	
E5.34	Materials and consumables direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N	
E5.35	Service charges SEPA direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N	
E5.36	Other direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N	
E5.37	Total direct costs	-	£'000	C	N		N		N		N		N		N		N		N		N		N	
E5.38	General and support expenditure	-	£'000	I	N		N		N		N		N		N		N		N		N		N	
E5.39	Functional Expenditure	-	£'000	C	N		N		N		N		N		N		N		N		N		N	
E5.40	Estimated intake and raw water pumping direct costs	-	£'000	I	N	Please refer to general	N	Please refer to gene	N	Please refer to general	N	Please refer to general	N	Please refer to general	N	Please refer to general	N	Please refer to gene	N	Please refer to general	N	Please refer to g	N	Please refer to gener
E5.41	Estimated treated water pumping direct costs		£'000	I	N	Please refer to general	N	Please refer to gene	N	Please refer to general	N	Please refer to general	N	Please refer to general	N	Please refer to general	N	Please refer to gene	N	Please refer to general	N	Please refer to g	N	Please refer to gener
E5.42	Estimated waterworks sludge direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N	

Prepared by: ..... Date: .....

Checked by: ..... Date: .....

Authorised by: Geoff Aitkenhead Date: .....

Edition 1

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

Line Ref.	Description	Ofwat Ref CMR 02	Units	Field Type	10 Area 1	CG	20 Area 2	CG	30 Area 3	CG	40 Area 4	CG	50 Area 5	CG	60 Area 6	CG	199 Total	CG
					Report Year-1 2002-03													
	Area Data		**Name**															
E6.0	Name	-		I														
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	-	Ml/d	I/C													0	
E6.4	Volume of water delivered to non-households	-	Ml/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	-	Ml/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	Ml	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	Ml	I/C													0	

Note: Water Distribution costs are reported on Table E1

Prepared by: ..... Date: .....

Checked by: ..... Date: .....

Authorised by: ..... Date: .....

Edition 2

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

Line Ref.	Description	Ofwat Ref CMR 02	Units	Field Type	10 Area 1	CG	20 Area 2	CG	30 Area 3	CG	40 Area 4	CG	50 Area 5	CG	60 Area 6	CG	199 Total	CG
	Area Data			**Name**	Report Year 2003-04													
E6.0	Name	-		I	NW		NE		SE		SW							
E6.1	Annual average resident connected population	-	000	I/C	352	B2	1149	B2	1009	B2	2424	B2					4934	B2
E6.2	Total connected properties	-	000	I/C	195	B4	582	B4	499	B4	1203	B4					2479	B2
E6.3	Volume of water delivered to households	-	Ml/d	I/C	61.21	C4	197.68	C4	174.64	C4	420.86	C4					854.39	B3
E6.4	Volume of water delivered to non-households	-	Ml/d	I/C	35.05	C4	114.79	C4	70.26	C4	297.98	C4					518.08	B2
E6.5	Area	-	km 2	I/C	38868	A1	16918	A1	10985	A1	13205	A1					79976	A1
E6.6	Not in use																	
E6.7	Number of supply zones	-	nr	I/C	222	A1	41	A1	56	A1	75	A1					394	A1
	Water main data																	
E6.8	Total length of mains	-	km	I/C	9792	B2	11666	B2	9462	B2	15588	B2					46508	B2
E6.9	Total length of unlined iron mains	-	km	I/C	1262	B3	3136	B3	4680	B3	8414	B3					17492	B3
E6.10	Total length of mains > 300mm diameter	-	km	I/C	240	B2	1390	B2	1071	B2	2504	B2					5205	B2
E6.11	Water mains bursts	-	nr	I/C	1094	B3	1714	B3	2291	B3	3367	B3					8466	B3
E6.12	Leakage level	-	Ml/d	I/C	80.97	C4	171.82	C4	208.36	C4	684.4	C4					1145.55	C4
E6.13	Properties reported for low pressure	-	nr	I/C	2572	C4	3134	C4	1672	C4	5610	C4					12988	C4
	Pumping Stations																	
E6.14	Total number of pumping stations	-	nr	I/C	145	B4	129	B4	85	B3	131	B3					490	B4
E6.15	Total capacity of pumping stations	-	m3/d	I/C	70686	C4	613653	C4	57133	C4	1658567	C4					2400039	C4
E6.15a	Total capacity of booster pumping stations	CM3, L18	Kw	I/C	7453	C4	12884	C4	845	C4	21902	C4					43084	C4
E6.16	Average pumping head	-	nr	I	14.244	C4	35.045	C4	2.986	C4	37.286	C3					29.631	C4
	Service Reservoirs																	
E6.17	Total number of service reservoirs	CM3, 13	nr	I/C	664	B3	420	B3	237	B3	355	B3					1676	B3
E6.18	Total capacity of service reservoirs	CM3, L14	Ml	I/C	373.81	C4	1309.34	C4	589.98	C4	1843.26	C4					4116.39	C4
	Water Towers																	
E6.19	Total number of water towers	CM3, L15	nr	I/C	1	B3	5	B3	0	B3	10	B3					16	B3
E6.20	Total capacity of tower towers	CM3, L16	Ml	I/C	0.009	C4	10.44	C4	0	C4	23.34	C4					33.789	C4

Note: Water Distribution costs are reported on Table E1

Prepared by: ……..…. Date: ……..

Checked by: ……..…. Date: ……..

Authorised by: Geoff Aitkenhead Date: ……..

Edition 2

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

Line Ref.	Description	Ofwat Ref CMR 02	Units	Field Type

199
Report Year 2003-04

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	
					B2	G	
N					B3	G	
					B4	N	
					BX	G	
N					C2	N	
N					C3	N	
N					C4	N	
N					C5	N	
N				Water Balance con	CX	N	
N				Comments as repo	M	N	
					N	N	
					D3	N	
N				Corporate data set	D4	N	
N				Extrapolation exerc	D5	N	
N				Extrapolation exerc	D6	N	
N				Extrapolation exerc	DX	N	
N							
N				Extrapolation exercise to fill data gaps. All capacities not yet held within corporate data set			
N							
N				Extrapolation exercise to fill data gaps. All capacities not yet held within corporate data set.			

Issues with data	Problem ?		Solution
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: ..... Date: .....

Checked by: ..... Date: .....

Authorised by: Geoff Aitkenhead Date: .....

Edition 2

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	10 Area 1	CG	20 Area 2	CG	30 Area 3	CG	40 Area 4	CG	50 Area 5	CG	60 Area 6	CG	70 Area 7	CG	80 Area 8	CG	199 Total	CG
	Area Data		**Name**		NW		NE		SE		SW											
E7.0	Name	-		I																		
E7.1	Annual average resident connected population	T17a, L1	000	I/C	331	B2	1112	B2	971	B2	2274.01	B2									4688.01	B2
E7.2	Annual average non- resident connected population	T17a, L2	000	I/C	29	C3	37	C3	31	C3	32	C3									129	C3
E7.3	Volume of sewage collected (daily average)	T17a, L3	Ml/d	I/C	309	C4	773	C4	683	C4	1874	C4									3639	C4
E7.4	Total connected properties	T17a, L4	nr	I/C	148914	B2	551192	B2	504310	B2	1165812	B2									2370228	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	142	A2	373	A2	616	A2	219	A2									1350	A2
E7.7	Annual Precipitation	T17a, L8	mm	I	1561	A2	932	A2	955	A2	1365	A2									1214	A2
	Sewerage Data																					
E7.8	Total length of sewer	T17a, L9	km	I/C	4844	C3	10627	C3	9207	C3	20176	C3									44854	C3
E7.9	Total length of lateral sewer	-	km	I/C	1384	C4	3096	C4	2736	C4	5984	C4									13200	C4
E7.10	Length of combined sewer	T17a, L11	km	I/C	1648	C3	3845	C3	3271	C3	8139	C3									16903	C3
E7.11	Length of separate stormwater sewer	T17a, L12	km	I/C	685	C3	1765	C3	1692	C3	3309	C3									7451	C3
E7.12	Length of sewer > 1000 mm diameter	T17a, L13	km	I/C	18	C3	153	C3	181	C3	374	C3									726	C3
E7.13	Length of Critical Sewer	T17a, L14	km	I/C	386	B3	1351	B3	1337	B3	2796	B3									5870	B3
E7.14	Sewer Collapses	T17a, L15	nr	I/C	251	C4	563	C4	497	C4	1088	C4									2399	C4
	Pumping Stations																					
E7.15	Total number of pumping stations	T17a, L16	nr	I/C	507	A3	707	A3	271	A3	413	A3									1898	A3
E7.16	Total capacity of pumping stations (m^3/d)	T17a, L17	m^3/d	I/C	1947689	C4	5003962	C4	2125776	C4	1254873	C4									10332300	C4
E7.16a	Total capacity of pumping stations (kw)	CM6, L6	Kw	I/C	13623	C4	28633	C4	8198	C4	17851	C4									68305	C4
E7.17	Average pumping head	T17a, L18	m	I	11	C6	12	C6	8	C6	7	C6									11	C6
E7.18	Total number of combined pumping stations	T17a, L19	nr	I/C	315	B3	444	B3	184	B3	257	B3									1200	B3
E7.19	Total capacity of combined pumping stations	T17a, L20	m3/d	I/C	1134153	C4	4391675	C4	1907484	C4	902974	C4									8336286	C4
E7.20	Total number of stormwater pumping stations	T17a, L21	nr	I/C	22	B4	14	B4	0	B4	2	B4									38	B4
E7.21	Total capacity of stormwater pumping stations	T17a, L22	m3/d	I/C	464406	C4	89722	C4	0	C4	62072	C4									616200	C4
E7.22	Number of combined sewer overflows	T17a, L23	nr	I/C	725	B4	1123	B4	640	B4	1460	B4									3948	B4
E7.23	Number of combined sewer overflows (screened)	T17a, L24	nr	I/C	109	B4	196	B4	109	B4	186	B4									600	B4

Note: Sewerage costs are reported on Table E2

Prepared by: ……..….. Date: ……..

Checked by: ……..….. Date: ……..

Authorised by: Geoff Aitkenhead Date: ……..

Edition 2

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	10 Area 1		20 Area 2		30 Area 3		40 Area 4		50 Area 5		60 Area 6		70 Area 7		80 Area 8		199 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			**Name**																											
E7.0	Name	-		t																										
E7.1	Annual average resident connected population	Tl7a, L1	000	t/C	N	Some improvement in the definition of sewered areas is required to improve the assessments of connected population as is the data on connected non domestic properties. Properties within sewered area boundaries which are not connected are not identified.	N	Some improvement in the definition of sewered areas is required to improve the assessments of connected population as is the data on connected non domestic properties. Properties within sewered area boundaries which are not connected are not identified.	N	Some improvement in the definition of sewered areas is required to improve the assessments of connected population as is the data on connected non domestic properties. Properties within sewered area boundaries which are not connected are not identified.	N	Some improvement in the definition of sewered areas is required to improve the assessments of connected population as is the data on connected non domestic properties. Properties within sewered area boundaries which are not connected are not identified.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	Some improvement in the definition of sewered areas is required to improve the assessments of connected population as is the data on connected non domestic properties. Properties within sewered area boundaries which are not connected are not identified.	General		Benchmarking A1		Benchmarking A2		Benchmarking B2	
E7.2	Annual average non- resident connected populatio	Tl7a, L2	000	t/C	N	There is no Scottish Water corporate database of tourist population and only high level figures produced by external data sources. The allocation of the tourist population assessed to Operational Areas has improved but still contains uncertainties.	N	There is no Scottish Water corporate database of tourist population and only high level figures produced by external data sources. The allocation of the tourist population assessed to Operational Areas has improved but still contains uncertainties.	N	There is no Scottish Water corporate database of tourist population and only high level figures produced by external data sources. The allocation of the tourist population assessed to Operational Areas has improved but still contains uncertainties.	N	There is no Scottish Water corporate database of tourist population and only high level figures produced by external data sources. The allocation of the tourist population assessed to Operational Areas has improved but still contains uncertainties.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	There is no Scottish Water corporate database of tourist population and only high level figures produced by external data sources. The allocation of the tourist population assessed to Operational Areas has improved but still contains uncertainties.	A1	G	A1	G	A1	G	A1	G
E7.3	Volume of sewage collected (daily average)	Tl7a, L3	Ml/d	t/C	N	The assessment of the volume of sewage has been made using extrapolations from a limited sample of recorded data and from general rainfall depths reported by external data sources.	N	The assessment of the volume of sewage has been made using extrapolations from a limited sample of recorded data and from general rainfall depths reported by external data sources.	N	The assessment of the volume of sewage has been made using extrapolations from a limited sample of recorded data and from general rainfall depths reported by external data sources.	N	The assessment of the volume of sewage has been made using extrapolations from a limited sample of recorded data and from general rainfall depths reported by external data sources.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	The assessment of the volume of sewage has been made using extrapolations from a limited sample of recorded data and from general rainfall depths reported by external data sources.	A2	G	A2	N	A2	G	A2	G
E7.4	Total connected properties	Tl7a, L4	nr	t/C	N		N		N		N		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N		A3	G	A3	N	A3	N	A3	G
E7.5	Area of Sewerage District	Tl7a, L5	km 2	t/C	N		N		N		N		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N		A4	N	A4	N	A4	N	A4	N
E7.6	Drained Area	Tl7a, L6	km2	t/C	N		N		N		N		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N		AX	G	AX	G	AX	G	AX	G
E7.7	Annual Precipitation	Tl7a, L8	mm	t	N		N		N		N		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N		B2	G	B2	N	B2	N	B2	G
																							B3	G	B3	N	B3	N	B3	N
																							B4	N	B4	N	B4	N	B4	N
Sewerage Data																														
E7.8	Total length of sewer	Tl7a, L9	km	t/C	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new development sewers yet to be added to GIS.	BX	G	BX	N	BX	N	BX	G
E7.9	Total length of lateral sewer	-	Km	t/C	N	Uncertainties exist in the assessment of lateral sewers which has been made by extrapolation from a limited sample.	N	Uncertainties exist in the assessment of lateral sewers which has been made by extrapolation from a limited sample.	N	Uncertainties exist in the assessment of lateral sewers which has been made by extrapolation from a limited sample.	N	Uncertainties exist in the assessment of lateral sewers which has been made by extrapolation from a limited sample.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	Uncertainties exist in the assessment of lateral sewers which has been made by extrapolation from a limited sample.	C2	N	C2	N	C2	N	C2	N
E7.10	Length of combined sewer	Tl7a, L11	km	t/C	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new development sewers yet to be added to GIS.	C3	N	C3	N	C3	N	C3	N
E7.11	Length of separate stormwater sewer	Tl7a, L12	km	t/C	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new development sewers yet to be added to GIS.	C4	N	C4	N	C4	N	C4	N
E7.12	Length of sewer > 1000 mm diameter	Tl7a, L13	km	t/C	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new developments sewers yet to be added to GIS.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	Uncertainties exist in the assessment of those sewers which are not recorded on the corporate GIS system, namely lateral sewers and new development sewers yet to be added to GIS.	C5	N	C5	N	C5	N	C5	N
E7.13	Length of Critical Sewer	Tl7a, L14	km	t/C	N	of critical issues remain over the corporate recording systems during the Report Year and therefore the assessment made involved use of extrapolation from one of these sources supported with a third party dataset.	N	of critical issues remain over the corporate recording systems during the Report Year and therefore the assessment made involved use of extrapolation from one of these sources supported with a third party dataset.	N	of critical issues remain over the corporate recording systems during the Report Year and therefore the assessment made involved use of extrapolation from one of these sources supported with a third party dataset.	N	of critical issues remain over the corporate recording systems during the Report Year and therefore the assessment made involved use of extrapolation from one of these sources supported with a third party dataset.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	critical sewer issues remain over the corporate recording systems during the Report Year and therefore the assessment made involved use of extrapolation from one of these sources supported with a third party dataset.	CX	N	CX	N	CX	N	CX	N
E7.14	Sewer Collapses	Tl7a, L15	nr	t/C	N	Similarly to the previous Line the number of overflows which are screened is uncertain as the overall number of overflows is uncertain.	N	Similarly to the previous Line the number of overflows which are screened is uncertain as the overall number of overflows is uncertain.	N	Similarly to the previous Line the number of overflows which are screened is uncertain as the overall number of overflows is uncertain.	N	Similarly to the previous Line the number of overflows which are screened is uncertain as the overall number of overflows is uncertain.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#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.	M	N	M	N	M	N	M	N
Pumping Stations																							D3	N	D3	N	D3	N	D3	N
E7.15	Total number of pumping stations	Tl7a, L16	nr	t/C	N	No corporate database of this information exists. The assessment has been made on a very poor dataset.	N	No corporate database of this information exists. The assessment has been made on a very poor dataset.	N	No corporate database of this information exists. The assessment has been made on a very poor dataset.	N	No corporate database of this information exists. The assessment has been made on a very poor dataset.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	No corporate database of this information exists. The assessment has been made on a very poor dataset.	D4	N	D4	N	D4	N	D4	N
E7.16	Total capacity of pumping stations (m3/d)	Tl7a, L17	m3/d	t/C	N	No corporate database of this information exists.	N	No corporate database of this information exists.	N	No corporate database of this information exists.	N	No corporate database of this information exists.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	No corporate database of this information exists.	D5	N	D5	N	D5	N	D5	N
E7.16a	Total capacity of pumping stations (kw)	CMM, L8	Kw	t/C	N	No corporate database of this information exists.	N	No corporate database of this information exists.	N	No corporate database of this information exists.	N	No corporate database of this information exists.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	No corporate database of this information exists.	D6	N	D6	N	D6	N	D6	N
E7.17	Average pumping head	Tl7a, L18	m	t	#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		#N/A		DX	N	DX	N	DX	N	DX	N
E7.18	Total number of combined pumping stations	Tl7a, L19	nr	t/C	N		N		N		N		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N									
E7.19	Total capacity of combined pumping stations	Tl7a, L20	m3/d	t/C	N	No corporate database of this information exists.	N	No corporate database of this information exists.	N	No corporate database of this information exists.	N	No corporate database of this information exists.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	No corporate database of this information exists.								
E7.20	Total number of stormwater pumping stations	Tl7a, L21	nr	t/C	N	No corporate database of this information exists.	N	No corporate database of this information exists.	N	No corporate database of this information exists.	N	No corporate database of this information exists.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	No corporate database of this information exists.								
E7.21	Total capacity of stormwater pumping stations	Tl7a, L22	m3/d	t/C	N	No corporate database of this information exists.	N	No corporate database of this information exists.	N	No corporate database of this information exists.	N	No corporate database of this information exists.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	No corporate database of this information exists.								
E7.22	Number of combined sewer overflows	Tl7a, L23	nr	t/C	N	assigned	N	assigned	N	assigned	N	assigned	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	N	confidence								
E7.23	Number of combined sewer overflows (screened)	Tl7a, L24	nr	t/C	N	Similarly to the previous Line the number of overflows which are screened is uncertain as the overall number of overflows is uncertain.	N	Similarly to the previous Line the number of overflows which are screened is uncertain as the overall number of overflows is uncertain.	N	Similarly to the previous Line the number of overflows which are screened is uncertain as the overall number of overflows is uncertain.	N	Similarly to the previous Line the number of overflows which are screened is uncertain as the overall number of overflows is uncertain.	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#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	Y	199	Please amend numbers so they reconcile

Note: Sewerage costs are reported on Table E2

Prepared by: ..... Date: .....

Checked by: ..... Date: .....

Authorised by: Geoff Aitkenhead ..... Date: .....

Edition 2

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	10 Septic Tanks	CG	20 Primary	CG	30 Sec Activated Sludge	CG	40 Sec biological	CG	50 Tertiary A1	CG	60 Tertiary A2	CG	70 Tertiary B1	CG	80 Tertiary B2	CG	90 Sea Preliminary	CG	100 Sea Screened	CG	110 Sea Unscreened	CG	199 Total	CG
	Numbers				Treatment Category																						Total	
E8.1	Size Band 0	-	nr	I/C	929	A2	18	A2	8	A2	54	A2	2	A2	1	A2	9	A2	0	A2	0	A2	0	A2	79	A3	1100	A2
E8.2	Size Band 1	T17c, L1	nr	I/C	184	A2	14	A2	26	A2	56	A2	2	A2	0	A2	8	A2	2	A2	0	A2	0	A2	40	A3	332	A2
E8.3	Size Band 2	T17c, L2	nr	I/C	64	A2	8	A2	13	A2	47	A2	2	A2	1	A2	8	A2	1	A2	4	A2	1	A2	33	A3	182	A2
E8.4	Size Band 3	T17c, L3	nr	I/C	39	A1	15	A1	41	A1	60	A1	4	A1	1	A1	15	A1	2	A1	5	A2	2	A2	22	A2	206	A1
E8.5	Size Band 4	T17c, L4	nr	I/C	4	A1	12	A1	43	A1	47	A1	6	A1	2	A1	5	A1	1	A1	9	A2	8	A2	1	A2	138	A1
E8.6	Size Band 5	T17c, L5	nr	I/C	0	A1	3	A1	26	A1	8	A1	3	A1	3	A1	1	A1	1	A1	3	A1	1	A1	0	A1	49	A1
E8.7	Size Band 6 (Large Works)	T17c, L6	nr	I/C	0	A1	0	A1	26	A1	1	A1	1	A1	8	A1	1	A1	0	A1	0	A1	0	A1	0	A1	37	A1
E8.8	Total Sewage Treatment Works	T17c, L7	nr	C	1220	A2	70	A2	183	A2	273	A2	20	A2	16	A2	47	A2	7	A2	21	A2	12	A2	175	A2	2044	A2
E8.9	Small Sewage treatment works with ammonia consent 5 - 10 mg	T17c, L8	nr	I/C	0	A1	1	A1	15	A1	31	A1	2	A1	0	A1	6	A1	0	A1	0	A1	0	A1	0	A1	55	A1
E8.10	Small Sewage treatment works with ammonia consent <= 5 mg/	T17c, L9	nr	I/C	1	A1	0	A1	11	A1	11	A1	7	A1	3	A1	2	A1	1	A1	0	A1	0	A1	0	A1	36	A1
	Loading (average daily load)																										Total excluding Septic Tanks	
E8.11	Size Band 0	-	kg BOD/day	I/C	1719	B3	50	B3	37	B3	146	B3	9	B3	3	B3	28	B3	0	B3	0	B3	0	B3	255	B3	528	B3
E8.12	Size Band 1	T17d, L1	kg BOD/day	I/C	1921	B3	132	B3	295	B3	644	B3	19	B3	0	B3	91	B3	20	B3	0	B3	0	B3	410	B3	1611	B3
E8.13	Size Band 2	T17d, L2	kg BOD/day	I/C	1446	B3	232	B3	306	B3	1176	B3	53	B3	18	B3	171	B3	29	B3	87	B3	23	B3	705	B3	2800	B3
E8.14	Size Band 3	T17d, L3	kg BOD/day	I/C	2110	B3	973	B3	2937	B3	4412	B3	270	B3	30	B3	829	B3	143	B3	332	B3	155	B3	1383	B3	11464	B3
E8.15	Size Band 4	T17d, L4	kg BOD/day	I/C	742	B3	3267	B3	12742	B3	12050	B3	1752	B3	517	B3	1874	B3	176	B3	2497	B3	1921	B3	300	B3	37096	B3
E8.16	Size Band 5	T17d, L5	kg BOD/day	I/C	0	B3	2672	B3	25532	B3	7313	B3	2994	B3	3027	B3	667	B3	1065	B3	2659	B3	646	B3	0	B3	46575	B3
E8.17	Size Band 6 (large works)	T17d, L6	kg BOD/day	I/C	0	B3	0	B3	197188	B3	4419	B3	15440	B3	111390	B3	2170	B3	0	B3	0	B3	0	B3	0	B3	330607	B3
E8.18	Total Load Received	T17d, L7	kg BOD/day	C	7938	B3	7326	B3	239037	B3	30160	B3	20537	B3	114985	B3	5830	B3	1433	B3	5575	B3	2745	B3	3053	B3	430681	B3
E8.19	Small Sewage treatment works with ammonia consent 5 - 10 mg	T17d, L8	kg BOD/day	I/C	0	B3	5	B3	5866	B3	3111	B3	586	B3	0	B3	1074	B3	0	B3	0	B3	0	B3	0	B3	10642	B3
E8.20	Small Sewage treatment works with ammonia consent <= 5 mg/	T17d, L9	kg BOD/day	I/C	1	B3	0	B3	2967	B3	2557	B3	926	B3	1183	B3	124	B3	176	B3	0	B3	0	B3	0	B3	7933	B3
	Compliance																										Total	
E8.21	Size Band 0	-	%	I	100	B2	100	B2	99.2	B2	100	B2	0	N	100	B2	0	N	0	N	0	N	0	N	0	N		
E8.22	Size Band 1	T17e, L1	%	I/C	100	B2	98.3	B2	94.6	B2	100	B2	0	N	100	B2	100	B2	0	N	0	N	0	N	0	N		
E8.23	Size Band 2	T17e, L2	%	I/C	100	B2	97	B2	97.8	B2	100	B2	100	B2	100	B2	100	B2	0	N	0	N	0	N	0	N		
E8.24	Size Band 3	T17e, L3	%	I/C	99.6	B2	99.2	B2	99.5	B2	100	B2	100	B2	96.3	B2	100	B2	0	N	0	N	0	N	0	N		
E8.25	Size Band 4	T17e, L4	%	I/C	98	B2	96.6	B2	98.2	B2	98.3	B2	100	B2	100	B2	96.3	B2	100	B2	100	B2	100	B2	0	N		
E8.26	Size Band 5	T17e, L5	%	I/C	92.8	B2	95.3	B2	100	B2	94.4	B2	100	B2	90.9	B2	100	B2	0	N	0	N	0	N	0	N		
E8.27	Size Band 6 (large works)	T17e, L6	%	I/C	0	N	97.9	B2	100	B2	100	B2	99.1	B2	100	B2	0	N	0	N	0	N	0	N	0	N		
E8.28	Average compliance by works - all sizes	T17e, L7	%	I/C	99	B2	97.6	B2	97.8	B2	98.7	B2	99.5	B2	98.5	B2	99.5	B2	100	B2	100	B2	100	B2	0	N		
E8.29	Small Sewage treatment works with ammonia consent 5 - 10 mg	T17e, L8	%	I/C	0	N	100	B2	99	B2	95	B2	0	N	100	B2	0	N	0	N	0	N	0	N	0	N		
E8.30	Small Sewage treatment works with ammonia consent <= 5 mg/	T17e, L9	%	I/C	0	N	100	B2	96.8	B2	100	B2	100	B2	91.7	B2	96.3	B2	0	N	0	N	0	N	0	N		
	Costs																										Total	
E8.31	Direct costs for works in size band 0	-	£000	I/C	846	B3	5	B3	11	B3	35	B3	15	B3	1	B3	26	B3	0	N	0	N	0	N	25	B3	964	B3
E8.32	Direct costs for works in size band 1	-	£000	I/C	372	B3	19	B3	87	B3	150	B3	7	B3	0	N	24	B3	4	B3	0	N	0	N	34	B3	697	B3
E8.33	Direct costs for works in size band 2	-	£000	I/C	195	B3	47	B3	62	B3	241	B3	10	B3	4	B3	38	B3	6	B3	2	B3	0	B3	79	B3	684	B3
E8.34	Direct costs for works in size band 3	-	£000	I/C	232	B3	101	B3	623	B3	904	B3	51	B3	6	B3	185	B3	29	B3	9	B3	3	B3	89	B3	2232	B3
E8.35	Direct costs for works in size band 4	-	£000	I/C	41	B3	442	B3	2329	B3	2347	B3	394	B3	97	B3	329	B3	30	B3	56	B3	23	B3	5	B3	6093	B3
E8.36	Direct costs for works in size band 5	-	£000	I/C	0	N	490	B3	4961	B3	1135	B3	720	B3	695	B3	126	B3	252	B3	27	B3	7	B3	0	N	8413	B3
E8.37	Direct costs for works in size band 6 (large works)	-	£000	I/C	0	N	0	N	12835	B3	482	B3	443	B3	10867	B3	254	B3	0	N	0	N	0	N	0	N	24881	B3
E8.38	Direct costs for all sewage treatment works	-	£000	C	1686	B3	1104	B3	20908	B3	5294	B3	1640	B3	11670	B3	982	B3	321	B3	94	B3	33	B3	232	B3	43964	B3
E8.39	General and support expenditure	-	£000	I/C	375	B3	303	B3	3694	B3	1476	B3	288	B3	407	B3	244	B3	19	B3	21	B3	9	B3	45	B3	6881	B3
E8.40	Functional expenditure	-	£000	C	2061	B3	1407	B3	24602	B3	6770	B3	1928	B3	12077	B3	1226	B3	340	B3	115	B3	42	B3	277	B3	50845	B3
E8.41	Power costs	-	£000	I/C	31	N	140	B3	2702	B3	870	B3	392	B3	72	B3	169	B3	15	B3	2	B3	0	N	2	N	4395	B3
E8.42	Service charges SEPA	-	£000	I/C	846	B3	130	B3	2886	B3	885	B3	259	B3	963	B3	207	B3	38	B3	49	B3	18	B3	120	B3	6401	B3

Prepared by: ……..... Date: ……..

Checked by: ……..... Date: ……..

Authorised by: Geoff Aitkenhead Date: ……..

Edition 1

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	10 Septic Tanks	Comment Necessary Y/N	Comment	20 Primary	Comment Necessary Y/N	Comment	30 Sec Activated Sludge	Comment Necessary Y/N	Comment	40 Sec biological	Comment Necessary Y/N	Comment	50 Tertiary A1	Comment Necessary Y/N	Comment	60 Tertiary A2	Comment Necessary Y/N	Comment	70 Tertiary B1	Comment Necessary Y/N	Comment	80 Tertiary B2	Comment Necessary Y/N	Comment	90 Sea Preliminary	Comment Necessary Y/N	Comment	100 Sea Screened	Comment Necessary Y/N	Comment	110 Sea Unscreened	Comment Necessary Y/N	Comment	199 Total	Comment Necessary Y/N	Comment
	Numbers																																							
E8.1	Size Band 0	-	nr	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.2	Size Band 1	T17c, L1	nr	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.3	Size Band 2	T17c, L2	nr	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.4	Size Band 3	T17c, L3	nr	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.5	Size Band 4	T17c, L4	nr	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.6	Size Band 5	T17c, L5	nr	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.7	Size Band 6 (Large Works)	T17c, L6	nr	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.8	Total Sewage Treatment Works	T17c, L7	nr	C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.9	Small Sewage treatment works with ammonia consent 5 - 10 mg	T17c, L8	nr	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.10	Small Sewage treatment works with ammonia consent <= 5 mg	T17c, L9	nr	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
	Loading (average daily load)																																							
E8.11	Size Band 0	-	kg BOD/day	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.12	Size Band 1	T17d, L1	kg BOD/day	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.13	Size Band 2	T17d, L2	kg BOD/day	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.14	Size Band 3	T17d, L3	kg BOD/day	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.15	Size Band 4	T17d, L4	kg BOD/day	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.16	Size Band 5	T17d, L5	kg BOD/day	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.17	Size Band 6 (large works)	T17d, L6	kg BOD/day	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.18	Total Load Received	T17d, L7	kg BOD/day	C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.19	Small Sewage treatment works with ammonia consent 5 - 10 mg	T17d, L8	kg BOD/day	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.20	Small Sewage treatment works with ammonia consent <= 5 mg	T17d, L9	kg BOD/day	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
	Compliance																																							
E8.21	Size Band 0	-	%	I	#N/A			N			N			N			N			These works ar	N		N			There are no wo	N		There are no wo	N		There are no wo	N		These works are not sampled		
E8.22	Size Band 1	T17e, L1	%	I/C	#N/A			N			N			N			N			There are no wo	N		N			N			There are no wo	N		There are no wo	N		These works are not sampled		
E8.23	Size Band 2	T17e, L2	%	I/C	#N/A			N			N			N			N			N			N			N			These works ar	N		These works ar	N		These works are not sampled		
E8.24	Size Band 3	T17e, L3	%	I/C	#N/A			N			N			N			N			N			N			N			These works ar	N		These works ar	N		These works are not sampled		
E8.25	Size Band 4	T17e, L4	%	I/C	#N/A			N			N			N			N			N			N			N			N			N			These works are not sampled		
E8.26	Size Band 5	T17e, L5	%	I/C	#N/A			N			N			N			N			N			N			N			These works ar	N		These works ar	N		These works are not sampled		
E8.27	Size Band 6 (large works)	T17e, L6	%	I/C	#N/A			N		There are no	N			N			N			N			N			There are no wo	N		There are no wo	N		There are no wo	N		There are no works in this size band		
E8.28	Average compliance by works - all sizes	T17e, L7	%	I/C	#N/A			N			N			N			N			N			N			N			N			N			These works are not sampled		
E8.29	Small Sewage treatment works with ammonia consent 5 - 10 mg	T17e, L8	%	I/C	#N/A			N		These works	N			N			N			There are no wo	N		N			There are no wo	N		There are no wo	N		There are no wo	N		There are no works in this category		
E8.30	Small Sewage treatment works with ammonia consent <= 5 mg	T17e, L9	%	I/C	#N/A			N		There are no	N			N			N			N			N			N			There are no wo	N		There are no wo	N		There are no works in this category		
	Costs																																							
E8.31	Direct costs for works in size band 0	-	£000	I/C	N			N			N			N			N			N			N			Please refer to g	N		Please refer to N			Please refer to N			N					
E8.32	Direct costs for works in size band 1	-	£000	I/C	N			N			N			N			N			Please refer to g	N		N			Please refer to N			Please refer to N			Please refer to N			N					
E8.33	Direct costs for works in size band 2	-	£000	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.34	Direct costs for works in size band 3	-	£000	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.35	Direct costs for works in size band 4	-	£000	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.36	Direct costs for works in size band 5	-	£000	I/C	N		Please refer to g	N			N			N			N			N			N			N			N			N		Please refer to N			N		
E8.37	Direct costs for works in size band 6 (large works)	-	£000	I/C	N		Please refer to g	N		Please refer to	N			N			N			N			N			Please refer to g	N		Please refer to N			Please refer to N			Please refer to N		
E8.38	Direct costs for all sewage treatment works	-	£000	C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.39	General and support expenditure	-	£000	I/C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.40	Functional expenditure	-	£000	C	N			N			N			N			N			N			N			N			N			N			N			N		
E8.41	Power costs	-	£000	I/C	N		Please refer to g	N			N			N			N			N			N			N			N			N		Please refer to N			N		
E8.42	Service charges SEPA	-	£000	I/C	N			N			N			N			N			N			N			N			N			N			N			N		

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

Issues with data	Problem ?	Solution
E8.18 should equal A4.34*(1000/365)	Y	Please amend numbers so they reconcile

Prepared by: ..... Date: .....

Checked by: ..... Date: .....

Authorised by: Geoff Aitkenhead Date: .....

Edition 1

SCOTTISH WATER

ANNUAL RETURN INFORMATION REQUIREMENT

WATER INDUSTRY COMMISSIONER FOR SCOTLAND

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	140	150
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
					CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	CG	
	Works Size																		
E9.0	Name	-		I	Allers	Alloa	Ardoch	Carbarns	Dalderse	Daldowie	Dalmarnock	Dunfermline	Dunnswood	Galashiels	Hamilton	Ironmill Bay	Johnstone	Kinneil Kerse	Kirkcaldy
E9.1	Annual average resident connected population	T17b, L2	000	I	28.7 B3	30.5 B3	41.5 B3	39.1 B3	65.2 B3	188.6 B3	133.8 B3	26.9 B3	26.7 B3	15.2 B3	48.6 B3	52.2 B3	24.6 B3	34.2 B3	52
E9.2	Annual average non-resident connected population	T17b, L3	000	I	0 B3	0.5 B3	0.7 B3	0.1 B3	0.7 B3	0.9 B3	0.8 B3	0.3 B3	0.3 B3	0.3 B3	0.3 B3	0.8 B3	0.2 B3	0.1 B3	0.7
E9.3	Trade effluent load received by works	T17b, L4	kg/COD/day	I	2485 B4	123 B4	451 B4	348 B4	1042 B4	4145 B4	23001 B4	162 B4	247 B4	158 B4	376 B4	0 B4	75 B4	1615 B4	2385
E9.4	Tanker load received by works	T17b, L5	kg/COD/day	I	0 B4	828 B4	1683 B4	14 B4	12022 B4	4783 B4	0 B4	6733 B4	0 B4	14069 B4	0 B4	0 B4	0 B4	5927 B4	0
E9.5	Population equivalent of total laod received	T17b, L6	000	I	56 B3	37 B3	54 B3	47 B3	100 B3	257 B3	372 B3	38 B3	33 B3	36 B3	60 B3	62 B3	27 B3	48 B3	74
	Treatability																		
E9.6	Biological Oxygen Demand (BOD5) of influent	T17b, L7	mg/l	I	136 A2	129 A2	209 A2	95 A2	58 A2	97 A2	120 A2	83 A2	167 A2	161 A2	162 A2	171 A2	146 A2	85 A2	150
E9.7	Chemical Oxygen Demand (COD) of influent	T17b, L8	mg/l	I	445 A2	388 A2	296 A2	222 A2	142 A2	358 A2	297 A2	275 A2	457 A2	504 A2	371 A2	602 A2	411 A2	231 A2	412
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 N	0 N	0
E9.9	Suspended solids (SS) of influent	T17b, L10	mg/l	I	174 A2	286 A2	236 A2	96 A2	52 A2	103 A2	101 A2	107 A2	212 A2	222 A2	153 A2	442 A2	202 A2	134 A2	125
E9.10	Ammoniacal Nitrogen (NH3) of influent	T17b, L11	mg/l	I	20 A2	14 A2	16 A2	16 A2	15 A2	14 A2	10 A2	18 A2	25 A2	18 A2	18 A2	15 A2	13 A2	13 A2	25
	Compliance																		
E9.11	Suspended solids consent	T17b, L12	mg/l	I	30 A1	0 N	40 N	30 A1	0 N	30 A1	30 A1	0 N	15 A1	35 A1	30 A1	0 N	30 A1	0 N	0
E9.12	BOD consent	T17b, L13	mg/l	I	20 A1	25 A1	25 A1	15 A1	20 A1	15 A1	25 A1	25 A1	10 A1	25 A1	20 A1	25 A1	15 A1	25 A1	25
E9.13	COD consent	T17b, L14	mg/l	I	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125
E9.14	Ammonia consent	T17b, L15	mg/l	I	0 N	30 A1	0 A1	10 A1	25 A1	5 A1	0 N	0 N	5 A1	15 A1	0 N	30 A1	13 A1	15 A1	0
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 N	0 N	0
E9.16	Compliance with effluent consent standard	T17b, L17	%	I	100 A1	99 A1	100 A1	100 A1	100 A1	100 A1	100 A1	100 A1	95 A1	100 A1	100 A1	100 A1	97 A1	100 A1	100
	Flow																		
E9.17	Average daily flow in dry weather	T17b, L18	Ml/d	I	13 B3	22 B3	25 B3	39 B3	38 B3	216 B3	115 B3	22 B3	11 A3	78 B3	19 B3	6 B3	14 B3	262 B3	23
E9.18	Ratio of daily maximum to to minimum flow	T17b, L19	nr	I	3 B3	6.8 B3	3 B3	3 B3	2.5 B3	2 B3	2 B3	2.6 B3	3 B3	1.7 B3	3 B3	2.6 B3	2 B3	2.9 B3	2.8
	Treatment Works Category																		
E9.19	Primary	T17b, L20	1/0	I	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	0 A1	0 A1	1
E9.20	Secondary activated sludge	T17b, L21	1/0	I	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	0 A1	1 A1	1 A1	1 A1	1 A1	0
E9.21	Secondary biological	T17b, L22	1/0	I	0 A1	0 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	1
E9.22	Tertiary A1	T17b, L23	1/0	I	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	0 A1	0
E9.23	Tertiary A2	T17b, L24	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 A1	0 A1	0
E9.24	Tertiary B1	T17b, L25	1/0	I	0 A1	0 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
E9.25	Tertiary B2	T17b, L26	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 A1	0 A1	0
	Miscellaneous Data																		
E9.26	Distance to next works	T17b, L27	km	I	4 A1	5 A1	2 A1	2 A1	5 A1	3 A1	4 A1	1 A1	5 A1	5 A1	2 A1	2 A1	3 A1	3 A1	5
E9.27	Sea outfalls at works	T17b, L28	1/0	I	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	1 A1	1
E9.28	Terminal Pumping costs	T17b, L29	1/0	I	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0
E9.29	Own sludge	T17b, L30	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 A1	0 A1	1
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 N	0 N	0
E9.31	Sludge centre	T17b, L32	1/0	I	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	1 A1	0 A1	1 A1	0 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 N	0 N	0
	Works Cost																		
E9.33	Employment costs	-	£'000	I	51 B3	146 B3	66 B3	88 B3	149 B3	125 B3	169 B3	179 B3	64 B3	99 B3	129 B3	143 B3	15 B3	67 B3	203
E9.34	Power costs	T17b, L35	£'000	I	27 B3	73 B3	57 B3	53 B3	77 B3	202 B3	236 B3	64 B3	41 B3	43 B3	40 B3	6 B3	20 B3	33 B3	113
E9.35	Hired and contracted services	-	£'000	I	21 B3	-5 BX	12 B3	-1 BX	-2 BX	31 B3	-22 BX	2 B3	0 BX	79 B3	62 B3	13 B3	2 B3	21 B3	49
E9.36	Materials and consumables	-	£'000	I	14 B3	9 B3	72 B3	0 BX	74 B3	13 B3	4 B3	30 B3	4 B3	30 B3	3 B3	16 B3	0 BX	29 B3	115
E9.37	Service charges SEPA	-	£'000	I	29 B3	0 BX	24 B3	32 B3	62 B3	71 B3	68 B3	5 B3	0 BX	0 B3	18 B3	75 B3	5 B3	83 B3	0
E9.38	Other direct costs	-	£'000	I	0 BX	-5 BX	2 B3	1 B3	6 B3	1 B3	1 BX	19 B3	9 B3	4 B3	-1 BX	7 B3	0 BX	3 B3	3
E9.39	Total direct costs	T17b, L34	£'000	C	142 B3	218 B3	233 B3	173 B3	366 B3	443 B3	456 B3	299 B3	118 B3	255 B3	251 B3	260 B3	42 B3	236 B3	483
E9.40	General and support expenditure	T17b, L37	£'000	I	23 B3	44 B3	36 B3	35 B3	63 B3	81 B3	93 B3	67 B3	22 B3	60 B3	40 B3	122 B3	8 B3	47 B3	115
E9.41	Functional Expenditure	T17b, L38	£'000	C	165 B3	262 B3	269 B3	208 B3	429 B3	524 B3	549 B3	366 B3	140 B3	315 B3	291 B3	382 B3	50 B3	283 B3	598
E9.42	Estimated terminal pumping station costs	T17b, L39	£'000	I	0 N	0 N	7 B3	0 N	0 N	0 N	60 B3	0 N	0 N	0 N	0 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 N	0 N	0

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Authorised by: Geoff Aitkenhead Date: ……..

Edition 1

SCOTTISH WATER

ANNUAL RETURN INFORMATION REQUIREMENT

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

Line Ref.	Description	Ofwat Ref	Units	Field Type		160		170		180		190		200		210		220		230		240		250		260		270		280		290	
					CG	16	CG	17	CG	18	CG	19	CG	20	CG	21	CG	22	CG	23	CG	24	CG	25	CG	26	CG	27	CG	28	CG	29	CG
	Works Size																														
E9.0	Name	-		I		Laighpark (Paisley)		Perth		Philipshill		Sheildhall		Stirling		Troqueer		Buckie		Dalmuir		East Calder		Fraserburgh		Hatton		Inverclyde		Inverness		Levenmouth	
E9.1	Annual average resident connected population	T17b, L2	000	I	B3	101.7	B3	52	B3	40.5	B3	334.8	B3	44.3	B3	25.1	B3	13.9	B3	368.6	B3	67.6	B3	16.2	B3	197.6	B3	78	B3	67.9	B3	120.4	B3
E9.2	Annual average non-resident connected population	T17b, L3	000	I	B3	0.6	B3	1.4	B3	0.5	B3	1.5	B3	1.1	B3	1	B3	0.9	B3	5.5	B3	0.3	B3	0.3	B3	3.4	B3	0.7	B3	3.2	B3	2	B3
E9.3	Trade effluent load received by works	T17b, L4	kg/COD/day	I	B4	10537	B4	697	B4	1791	B4	8624	B4	772	B4	121	B4	1094	B4	12044	B4	1846	B4	2940	B4	4155	B4	300	B4	1958	B4	19084	B4
E9.4	Tanker load received by works	T17b, L5	kg/COD/day	I	B4	0	B4	22539	B4	0	B4	7294	B4	150	B4	6960	B4	0	B4	0	B4	0	B4	0	B4	5874	B4	0	B4	3696	B4	75	B4
E9.5	Population equivalent of total laod received	T17b, L6	000	I	B3	192	B3	92	B3	62	B3	463	B3	60	B3	42	B3	26	B3	555	B3	95	B3	46	B3	270	B3	89	B3	102	B3	291	B3
	Treatability																														
E9.6	Biological Oxygen Demand (BOD5) of influent	T17b, L7	mg/l	I	A2	164	A2	139	A2	145	A2	69	A2	241	A2	115	A2	137	A2	106	A2	194	A2	289	A2	94	A2	61	A2	171	A2	271	A2
E9.7	Chemical Oxygen Demand (COD) of influent	T17b, L8	mg/l	I	A2	521	A2	393	A2	517	A2	258	A2	638	A2	284	A2	406	A2	321	A2	527	A2	591	A2	311	A2	197	A2	521	A2	566	A2
E9.8	Total Organic Carbon (TOC) of influent	T17b, L9	mg/l	I	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
E9.9	Suspended solids (SS) of influent	T17b, L10	mg/l	I	A2	175	A2	187	A2	221	A2	126	A2	465	A2	117	A2	168	A2	174	A2	221	A2	188	A2	157	A2	116	A2	229	A2	302	A2
E9.10	Ammoniacal Nitrogen (NH3) of influent	T17b, L11	mg/l	I	A2	15	A2	30	A2	24	A2	10	A2	27	A2	22	A2	0	N	14	A2	22	A2	0	N	0	N	12	A2	0	N	0	N
	Compliance																														
E9.11	Suspended solids consent	T17b, L12	mg/l	I	N	30	A1	0	N	15	A1	30	A1	0	N	30	A1	0	N	35	A1	0	N	0	N	0	N	35	A1	35	A1	0	N
E9.12	BOD consent	T17b, L13	mg/l	I	A1	15	A1	25	A1	10	A1	20	A1	25	A1	20	A1	25	A1	25	A1	15	A1	25	A1	25	A1	25	A1	25	A1	25	A1
E9.13	COD consent	T17b, L14	mg/l	I	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	125	A1	0	N	125	A1
E9.14	Ammonia consent	T17b, L15	mg/l	I	N	20	A1	30	A1	30	A1	20	A1	0	N	0	N	0	N	20	A1	2	A1	0	N	50	A1	0	N	0	N	0	N
E9.15	Phosphate consent	T17b, L16	mg/l	I	N	0	N	0	N	0	N	0	N	0	N	0	N	0	N	0	N	0.5	A1	0	N	0	N	0	N	0	N	0	N
E9.16	Compliance with effluent consent standard	T17b, L17	%	I	A1	100	A1	58.54	A1	98	A1	100	A1	97	A1	100	A1	100	A1	100	A1	100	A1	100	A1	100	A1	100	A1	100	A1	100	A1
	Flow																														
E9.17	Average daily flow in dry weather	T17b, L18	Ml/d	I	B3	63	B3	17	B3	14	B3	399	B3	32	B3	131	B3	6	B2	192	B2	19	B2	7	B2	80	B2	23	B2	20	B2	50	B2
E9.18	Ratio of daily maximum to to minimum flow	T17b, L19	nr	I	B3	3	B3	2.1	A2	3	B3	2	B3	3	B3	3	B3	2.6	B3	1.8	B2	2.67	B2	3.1	B2	2.5	B2	0	N	2.7	B2	2	B2
	Treatment Works Category																														
E9.19	Primary	T17b, L20	1/0	I	A1	1	A1	1	A1	1	A1	1	A1	1	A1	1	A1	0	A1	1	A1	1	A1	1	A1	1	A1	1	A1	1	A1	1	A1
E9.20	Secondary activated sludge	T17b, L21	1/0	I	A1	1	A1	1	A1	1	A1	1	A1	1	A1	1	A1	1	A1	1	A1	1	A1	1	A1	1	A1	1	A1	1	A1	1	A1
E9.21	Secondary biological	T17b, L22	1/0	I	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
E9.22	Tertiary A1	T17b, L23	1/0	I	A1	0	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
E9.23	Tertiary A2	T17b, L24	1/0	I	A1	0	A1	0	A1	0	A1	0	A1	0	A1	0	A1	0	A1	0	A1	1	A1	1	A1	0	A1	0	A1	1	A1	1	A1
E9.24	Tertiary B1	T17b, L25	1/0	I	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
E9.25	Tertiary B2	T17b, L26	1/0	I	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
	Miscellaneous Data																														
E9.26	Distance to next works	T17b, L27	km	I	A1	2	A1	4	A1	4	A1	5	A1	5	A1	3	A1	10	A1	3	A1	6	A1	10	A1	2	A1	8	A1	6	A1	6	A1
E9.27	Sea outfalls at works	T17b, L28	1/0	I	A1	0	A1	0	A1	0	A1	0	A1	0	A1	1	A1	1	A1	0	A1	0	A1	1	A1	1	A1	1	A1	1	A1	1	A1
E9.28	Terminal Pumping costs	T17b, L29	1/0	I	A1	0	A1	1	A1	0	A1	1	A1	0	A1	0	A1	0	A1	0	A1	0	A1	1	A1	0	A1	0	A1	0	A1	0	A1
E9.29	Own sludge	T17b, L30	1/0	I	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
E9.30	Own sludge costs	T17b, L31	1/0	I	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
E9.31	Sludge centre	T17b, L32	1/0	I	A1	0	A1	1	A1	0	A1	0	A1	1	A1	1	A1	0	A1	0	A1	0	A1	0	A1	1	A1	0	A1	1	A1	1	A1
E9.32	Sludge centre costs	T17b, L33	1/0	I	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
	Works Cost																														
E9.33	Employment costs	-	£'000	I	B3	77	B3	191	B3	68	B3	377	B3	209	B3	63	B3	0	N	0	N	0	N	0	N	0	N	0	N	0	N	0	N
E9.34	Power costs	T17b, L35	£'000	I	B3	150	B3	49	B3	44	B3	306	B3	95	B3	29	B3	0	N	0	N	0	N	0	N	0	N	0	N	0	N	0	N
E9.35	Hired and contracted services	-	£'000	I	B3	27	B3	22	B3	14	B3	66	B3	0	BX	18	B3	243	B3	1940	B3	357	B3	459	B3	1161	B3	704	B3	189	B3	2158	B3
E9.36	Materials and consumables	-	£'000	I	B3	5	B3	17	B3	3	B3	23	B3	55	B3	25	B3	0	N	0	N	0	N	0	N	0	N	0	N	0	N	0	N
E9.37	Service charges SEPA	-	£'000	I	BX	237	B3	10	B3	28	B3	176	B3	0	BX	73	B3	24	N	151	B3	28	N	36	N	125	N	69	B3	48	N	189	N
E9.38	Other direct costs	-	£'000	I	B3	0	BX	0	BX	0	BX	0	BX	3	B3	2	BX	0	N	0	N	0	N	0	N	0	N	0	N	0	N	0	N
E9.39	Total direct costs	T17b, L34	£'000	C	B3	496	B3	289	B3	157	B3	948	B3	362	B3	210	B3	267	B3	2091	B3	385	B3	495	B3	1286	B3	773	B3	237	B3	2347	B3
E9.40	General and support expenditure	T17b, L37	£'000	I	B3	91	B3	104	B3	28	B3	173	B3	66	B3	41	B3	9	A2	94	A2	7	A2	6	A2	80	A2	14	A2	50	A2	30	A2
E9.41	Functional Expenditure	T17b, L38	£'000	C	B3	587	B3	393	B3	185	B3	1121	B3	428	B3	251	B3	276	B3	2185	B3	392	B3	501	B3	1366	B3	787	B3	287	B3	2377	B3
E9.42	Estimated terminal pumping station costs	T17b, L39	£'000	I	N	0	N	23	B3	0	N	36	B3	0	N	0	N	0	N	0	N	0	N	0	N	0	N	0	N	0	N	0	N
E9.43	Estimated sludge costs	T17b, L40	£'000	I	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

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Edition 1

SCOTTISH WATER

ANNUAL RETURN INFORMATION REQUIREMENT

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	300 30 CG	310 31 CG	320 32 CG	330 33 CG	340 34 CG	350 35 CG	360 36 CG	370 37 CG
	Works Size				**Name**							
E9.0	Name	-		I	Lossiemouth	Meadowhead	Newbridge	Nigg	Persley	Peterhead	Seafield	Stevenston
E9.1	Annual average resident connected population	T17b, L2	000	I	42.3 B3	187.9 B3	19.7 B3	209.7 B3	20.5 B3	23.1 B3	540 B3	68.3 B3
E9.2	Annual average non-resident connected population	T17b, L3	000	I	1 B3	4 B3	0.2 B3	3.8 B3	0.7 B3	0.7 B3	13.3 B3	0.8 B3
E9.3	Trade effluent load received by works	T17b, L4	kg/COD/day	I	608 B4	18528 B4	1122 B4	7017 B4	1477 B4	2648 B4	24902 B4	8829 B4
E9.4	Tanker load received by works	T17b, L5	kg/COD/day	I	580 B4	0 B4	13929 B4	7567 B4	0 B4	3047 B4	12885 B4	0 B4
E9.5	Population equivalent of total laod received	T17b, L6	000	I	54 B3	318 B3	47 B3	303 B3	36 B3	54 B3	921 B3	88 B3
	Treatability											
E9.6	Biological Oxygen Demand (BOD5) of influent	T17b, L7	mg/l	I	155 A2	131 A2	169 A2	243 A2	224 A2	315 A2	139 A2	71 A2
E9.7	Chemical Oxygen Demand (COD) of influent	T17b, L8	mg/l	I	602 A2	388 A2	455 A2	604 A2	562 A2	749 A2	395 A2	343 A2
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
E9.9	Suspended solids (SS) of influent	T17b, L10	mg/l	I	246 A2	146 A2	196 A2	302 A2	249 A2	342 A2	188 A2	151 A2
E9.10	Ammoniacal Nitrogen (NH3) of influent	T17b, L11	mg/l	I	0 N	13 A2	18 A2	0 N	33 A2	0 N	15 A2	17 A2
	Compliance											
E9.11	Suspended solids consent	T17b, L12	mg/l	I	0 N	0 N	0 N	0 N	40 A1	0 N	150 A1	0 N
E9.12	BOD consent	T17b, L13	mg/l	I	25 A1	25 A1	15 A1	25 A1	25 A1	25 A1	25 A1	25 A1
E9.13	COD consent	T17b, L14	mg/l	I	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1	125 A1
E9.14	Ammonia consent	T17b, L15	mg/l	I	0 N	50 A1	5 A1	0 N	35 A1	0 N	0 N	50 A1
E9.15	Phosphate consent	T17b, L16	mg/l	I	0 N	0 N	0.5 A1	0 N	2 A1	0 N	0 N	0 N
E9.16	Compliance with effluent consent standard	T17b, L17	%	I	100 A1	100 A1	100 A1	100 A1	94 A1	100 A1	100 A1	100 A1
	Flow											
E9.17	Average daily flow in dry weather	T17b, L18	Ml/d	I	10 B2	95 B2	9 B2	63 B2	11 B2	8 B2	232 B2	39 B2
E9.18	Ratio of daily maximum to to minimum flow	T17b, L19	nr	I	3.3 B2	0 N	2.31 B2	2.8 B2	3.5 B2	3.2 B2	1.71 B2	0 N
	Treatment Works Category											
E9.19	Primary	T17b, L20	1/0	I	0 A1	0 A1	1 A1	1 A1	0 A1	1 A1	1 A1	1 A1
E9.20	Secondary activated sludge	T17b, L21	1/0	I	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1	1 A1
E9.21	Secondary biological	T17b, L22	1/0	I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
E9.22	Tertiary A1	T17b, L23	1/0	I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
E9.23	Tertiary A2	T17b, L24	1/0	I	0 A1	1 A1	1 A1	0 A1	1 A1	0 A1	1 A1	0 A1
E9.24	Tertiary B1	T17b, L25	1/0	I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
E9.25	Tertiary B2	T17b, L26	1/0	I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
	Miscellaneous Data											
E9.26	Distance to next works	T17b, L27	km	I	13 A1	5 A1	4 A1	8 A1	8 A1	7 A1	12 A1	5 A1
E9.27	Sea outfalls at works	T17b, L28	1/0	I	1 A1	1 A1	0 A1	1 A1	0 A1	1 A1	1 A1	1 A1
E9.28	Terminal Pumping costs	T17b, L29	1/0	I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
E9.29	Own sludge	T17b, L30	1/0	I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1
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
E9.31	Sludge centre	T17b, L32	1/0	I	1 A1	1 A1	0 A1	1 A1	0 A1	0 A1	1 A1	0 A1
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
	Works Cost											
E9.33	Employment costs	-	£'000	I	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N
E9.34	Power costs	T17b, L35	£'000	I	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N
E9.35	Hired and contracted services	-	£'000	I	292 B3	1391 B3	654 B3	1221 B3	490 B3	431 B3	4264 B3	789 B3
E9.36	Materials and consumables	-	£'000	I	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N
E9.37	Service charges SEPA	-	£'000	I	30 N	183 B3	51 N	226 B3	38 N	34 N	333 N	136 B3
E9.38	Other direct costs	-	£'000	I	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N
E9.39	Total direct costs	T17b, L34	£'000	C	322 B3	1574 B3	705 B3	1447 B3	528 B3	465 B3	4597 B3	925 B3
E9.40	General and support expenditure	T17b, L37	£'000	I	78 A2	74 A2	12 A2	62 A2	8 A2	7 A2	73 A2	17 A2
E9.41	Functional Expenditure	T17b, L38	£'000	C	400 B3	1648 B3	717 B3	1509 B3	536 B3	472 B3	4670 B3	942 B3
E9.42	Estimated terminal pumping station costs	T17b, L39	£'000	I	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N
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

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Authorised by: Geoff Aitkenhead Date: ……..

Edition 1

SCOTTISH WATER

WATER INDUSTRY COMMISSIONER FOR SCOTLAND

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		Name		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	Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment
E9.0	Name	-		I																										
E9.1	Annual average resident connected population	T17b, L2	000	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.2	Annual average non-resident connected population	T17b, L3	000	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.3	Trade effluent load received by works	T17b, L4	kg/COD/day	I	N	Migration of data to ne	N	Migration of data to n	N	Migration of data to	N	Migration of data to n	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to n	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of da
E9.4	Tanker load received by works	T17b, L5	kg/COD/day	I	N	Migration of data to ne	N	Migration of data to n	N	Migration of data to	N	Migration of data to n	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to n	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of da
E9.5	Population equivalent of total laod received	T17b, L6	000	I	N		N		N		N		N		N		N		N		N		N		N		N			
	Treatability																													
E9.6	Biological Oxygen Demand (BOD5) of influent	T17b, L7	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.7	Chemical Oxygen Demand (COD) of influent	T17b, L8	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.8	Total Organic Carbon (TOC) of influent	T17b, L9	mg/l	I	N	Scottish Water does nc	N	Scottish Water does n	N	Scottish Water does	N	Scottish Water does n	N	Scottish Water doe	N	Scottish Water doe	N	Scottish Water doe	N	Scottish Water does n	N	Scottish Water doe	N	Scottish Water doe	N	Scottish Water does	N	Scottish Water does	N	Scottish Wate
E9.9	Suspended solids (SS) of influent	T17b, L10	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.10	Ammoniacal Nitrogen (NH3) of influent	T17b, L11	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N			
	Compliance																													
E9.11	Suspended solids consent	T17b, L12	mg/l	I	N		N	This parameter is not	N	This parameter is n	N		N	This parameter is n	N		N		N	This parameter is not	N		N		N	This parameter is n	N			
E9.12	BOD consent	T17b, L13	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.13	COD consent	T17b, L14	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.14	Ammonia consent	T17b, L15	mg/l	I	N	This parameter is not i	N		N		N		N		N		N	This parameter is n	N	This parameter is not	N		N		N	This parameter is n	N			
E9.15	Phosphate consent	T17b, L16	mg/l	I	N	This parameter is not i	N	This parameter is not	N	This parameter is n	N	This parameter is not	N	This parameter is n	N	This parameter is n	N	This parameter is n	N	This parameter is not	N	This parameter is n	N	This parameter is n	N	This parameter is n	N	This parameter is n	N	This paramete
E9.16	Compliance with effluent consent standard	T17b, L17	%	I	N		N		N		N		N		N		N		N		N		N		N		N			
	Flow																													
E9.17	Average daily flow in dry weather	T17b, L18	Ml/d	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.18	Ratio of daily maximum to to minimum flow	T17b, L19	nr	I	N		N		N		N		N		N		N		N		N		N		N		N			
	Treatment Works Category																													
E9.19	Primary	T17b, L20	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.20	Secondary activated sludge	T17b, L21	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.21	Secondary biological	T17b, L22	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.22	Tertiary A1	T17b, L23	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.23	Tertiary A2	T17b, L24	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.24	Tertiary B1	T17b, L25	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.25	Tertiary B2	T17b, L26	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
	Miscellaneous Data																													
E9.26	Distance to next works	T17b, L27	km	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.27	Sea outfalls at works	T17b, L28	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.28	Terminal Pumping costs	T17b, L29	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.29	Own sludge	T17b, L30	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.30	Own sludge costs	T17b, L31	1/0	I	N	All own sludge costs ar	N	All own sludge costs i	N	All own sludge costs	N	All own sludge costs i	N	All own sludge cost	N	All own sludge cost	N	All own sludge cost	N	All own sludge costs i	N	All own sludge cost	N	All own sludge cos	N	All own sludge cost	N	All own sludge costs	N	All own sludge
E9.31	Sludge centre	T17b, L32	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.32	Sludge centre costs	T17b, L33	1/0	I	N	All sludge centre costs	N	All sludge centre cost	N	All sludge centre co	N	All sludge centre cost	N	All sludge centre cc	N	All sludge centre cc	N	All sludge centre co	N	All sludge centre cost	N	All sludge centre cc	N	All sludge centre cr	N	All sludge centre co	N	All sludge centre cor	N	All sludge cent
	Works Cost																													
E9.33	Employment costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.34	Power costs	T17b, L35	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.35	Hired and contracted services	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.36	Materials and consumables	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.37	Service charges SEPA	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.38	Other direct costs	-	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.39	Total direct costs	T17b, L34	£'000	C	N		N		N		N		N		N		N		N		N		N		N		N			
E9.40	General and support expenditure	T17b, L37	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.41	Functional Expenditure	T17b, L38	£'000	C	N		N		N		N		N		N		N		N		N		N		N		N			
E9.42	Estimated terminal pumping station costs	T17b, L39	£'000	I	N	Please refer to general	N	Please refer to gener	N		N	Please refer to gener	N	Please refer to gen	N	Please refer to gen	N		N	Please refer to gener	N	Please refer to ger	N	Please refer to gen	N	Please refer to gene	N	Please refer to	N	Please refer to
E9.43	Estimated sludge costs	T17b, L40	£'000	I	N	Please refer to general	N	Please refer to gener	N	Please refer to gen	N	Please refer to gener	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to gener	N	Please refer to gen	N	Please refer to ger	N	Please refer to gen	N	Please refer to gene	N	Please refer to	N	Please refer to

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SCOTTISH WATER

ANNUAL RETURN INFORMATION REQUIREMENT

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	
	Works Size		**Name**		
E9.0	Name	-		I	
E9.1	Annual average resident connected population	T17b, L2	000	I	
E9.2	Annual average non-resident connected population	T17b, L3	000	I	
E9.3	Trade effluent load received by works	T17b, L4	kg/COD/day	I	ata te
E9.4	Tanker load received by works	T17b, L5	kg/COD/day	I	ata te
E9.5	Population equivalent of total laod received	T17b, L6	000	I	
	Treatability				
E9.6	Biological Oxygen Demand (BOD5) of influent	T17b, L7	mg/l	I	
E9.7	Chemical Oxygen Demand (COD) of influent	T17b, L8	mg/l	I	
E9.8	Total Organic Carbon (TOC) of influent	T17b, L9	mg/l	I	r doe
E9.9	Suspended solids (SS) of influent	T17b, L10	mg/l	I	
E9.10	Ammoniacal Nitrogen (NH3) of influent	T17b, L11	mg/l	I	
	Compliance				
E9.11	Suspended solids consent	T17b, L12	mg/l	I	
E9.12	BOD consent	T17b, L13	mg/l	I	
E9.13	COD consent	T17b, L14	mg/l	I	
E9.14	Ammonia consent	T17b, L15	mg/l	I	
E9.15	Phosphate consent	T17b, L16	mg/l	I	r is r
E9.16	Compliance with effluent consent standard	T17b, L17	%	I	
	Flow				
E9.17	Average daily flow in dry weather	T17b, L18	Ml/d	I	
E9.18	Ratio of daily maximum to to minimum flow	T17b, L19	nr	I	
	Treatment Works Category				
E9.19	Primary	T17b, L20	1/0	I	
E9.20	Secondary activated sludge	T17b, L21	1/0	I	
E9.21	Secondary biological	T17b, L22	1/0	I	
E9.22	Tertiary A1	T17b, L23	1/0	I	
E9.23	Tertiary A2	T17b, L24	1/0	I	
E9.24	Tertiary B1	T17b, L25	1/0	I	
E9.25	Tertiary B2	T17b, L26	1/0	I	
	Miscellaneous Data				
E9.26	Distance to next works	T17b, L27	km	I	
E9.27	Sea outfalls at works	T17b, L28	1/0	I	
E9.28	Terminal Pumping costs	T17b, L29	1/0	I	
E9.29	Own sludge	T17b, L30	1/0	I	
E9.30	Own sludge costs	T17b, L31	1/0	I	cos
E9.31	Sludge centre	T17b, L32	1/0	I	
E9.32	Sludge centre costs	T17b, L33	1/0	I	re c
	Works Cost				
E9.33	Employment costs	-	£'000	I	
E9.34	Power costs	T17b, L35	£'000	I	
E9.35	Hired and contracted services	-	£'000	I	
E9.36	Materials and consumables	-	£'000	I	
E9.37	Service charges SEPA	-	£'000	I	
E9.38	Other direct costs	-	£'000	I	
E9.39	Total direct costs	T17b, L34	£'000	C	
E9.40	General and support expenditure	T17b, L37	£'000	I	
E9.41	Functional Expenditure	T17b, L38	£'000	C	
E9.42	Estimated terminal pumping station costs	T17b, L39	£'000	I	ger
E9.43	Estimated sludge costs	T17b, L40	£'000	I	ger

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ANNUAL RETURN INFORMATION REQUIREMENT

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	140		150		160		170		180		190		200		210		220		230		240		250		260	
					14		15		16		17		18		19		20		21		22		23		24		25		26			
	Works Size		Name		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	Comment Necessary Y/N	Comment		
E9.0	Name	-		I																										
E9.1	Annual average resident connected population	T17b, L2	000	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.2	Annual average non-resident connected population	T17b, L3	000	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.3	Trade effluent load received by works	T17b, L4	kg/COD/day	I	N	Migration of data to n	N	Migration of data t	N	Migration of data to r	N	Migration of data	N	Migration of data	N	Migration of data to	N	Migration of data to n	N	Migration of data t	N	Migration of data to new	N	Migration of data to n	N	Migration of data to	N	Migration of data	N	Migration of data to	
E9.4	Tanker load received by works	T17b, L5	kg/COD/day	I	N	Migration of data to n	N	Migration of data t	N	Migration of data to r	N	Migration of data	N	Migration of data	N	Migration of data to	N	Migration of data to n	N	Migration of data t	N	Migration of data to new	N	Migration of data to n	N	Migration of data to	N	Migration of data	N	Migration of data to	
E9.5	Population equivalent of total laod received	T17b, L6	000	I	N		N		N		N		N		N		N		N		N		N		N		N			
	Treatability																													
E9.6	Biological Oxygen Demand (BOD5) of influent	T17b, L7	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.7	Chemical Oxygen Demand (COD) of influent	T17b, L8	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.8	Total Organic Carbon (TOC) of influent	T17b, L9	mg/l	I	N	Scottish Water does r	N	Scottish Water doe	N	Scottish Water does	N	Scottish Water dc	N	Scottish Water d	N	Scottish Water does	N	Scottish Water does r	N	Scottish Water do	N	Scottish Water does not	N	Scottish Water does r	N	Scottish Water does	N	Scottish Water dc	N	Scottish Water does	
E9.9	Suspended solids (SS) of influent	T17b, L10	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.10	Ammoniacal Nitrogen (NH3) of influent	T17b, L11	mg/l	I	N		N		N		N		N		N		N		N		No ammonia consent sc	N		N		N	No ammonia cons	N	Influent not sampled	
	Compliance																													
E9.11	Suspended solids consent	T17b, L12	mg/l	I	N	This parameter is not	N	This parameter is r	N		N	This parameter is	N		N		N	This parameter is not	N		N	This parameter is not in	N		N	This parameter is nc	N	This parameter is	N	This parameter is nc	
E9.12	BOD consent	T17b, L13	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.13	COD consent	T17b, L14	mg/l	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.14	Ammonia consent	T17b, L15	mg/l	I	N		N	This parameter is r	N		N		N		N		N	This parameter is not	N	This parameter is	N	This parameter is not in	N		N		N	This parameter is	N		
E9.15	Phosphate consent	T17b, L16	mg/l	I	N	This parameter is not	N	This parameter is r	N	This parameter is no	N	This parameter is	N	This parameter i	N	This parameter is n	N	This parameter is not	N	This parameter is	N	This parameter is not in	N	This parameter is not	N		N	This parameter is	N	This parameter is nc	
E9.16	Compliance with effluent consent standard	T17b, L17	%	I	N		N		N		N		N		N		N		N		N		N		N		N			
	Flow																													
E9.17	Average daily flow in dry weather	T17b, L18	Ml/d	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.18	Ratio of daily maximum to to minimum flow	T17b, L19	nr	I	N		N		N		N		N		N		N		N		N		N		N		N			
	Treatment Works Category																													
E9.19	Primary	T17b, L20	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.20	Secondary activated sludge	T17b, L21	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.21	Secondary biological	T17b, L22	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.22	Tertiary A1	T17b, L23	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.23	Tertiary A2	T17b, L24	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.24	Tertiary B1	T17b, L25	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.25	Tertiary B2	T17b, L26	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
	Miscellaneous Data																													
E9.26	Distance to next works	T17b, L27	km	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.27	Sea outfalls at works	T17b, L28	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.28	Terminal Pumping costs	T17b, L29	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.29	Own sludge	T17b, L30	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.30	Own sludge costs	T17b, L31	1/0	I	N	All own sludge costs	N	All own sludge cos	N	All own sludge costs	N	All own sludge co	N	All own sludge c	N	All own sludge costs	N	All own sludge costs	N	All own sludge co	N	All own sludge costs are	N	All own sludge costs	N	All own sludge cost	N	All own sludge co	N	All own sludge costs	
E9.31	Sludge centre	T17b, L32	1/0	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.32	Sludge centre costs	T17b, L33	1/0	I	N	All sludge centre cost	N	All sludge centre c	N	All sludge centre cos	N	All sludge centre	N	All sludge centre	N	All sludge centre co	N	All sludge centre cost	N	All sludge centre c	N	All sludge centre costs	N	All sludge centre cost	N	All sludge centre co	N	All sludge centre	N	All sludge centre cos	
	Works Cost																													
E9.33	Employment costs	-	£'000	I	N		N		N		N		N		N		N		N		Please refer to general	N	Please refer to gener	N	Please refer to gene	N	Please refer to ge	N	Please refer to gene	
E9.34	Power costs	T17b, L35	£'000	I	N		N		N		N		N		N		N		N		Please refer to general	N	Please refer to gener	N	Please refer to gene	N	Please refer to ge	N	Please refer to gene	
E9.35	Hired and contracted services	-	£'000	I	N		N		N		N		N		N		N		N		Please refer to general	N	N		N		N			
E9.36	Materials and consumables	-	£'000	I	N		N		N		N		N		N		N		N		Please refer to general	N	Please refer to gener	N	Please refer to gene	N	Please refer to ge	N	Please refer to gene	
E9.37	Service charges SEPA	-	£'000	I	N		N		N		N		N		N		N		N		Please refer to general	N	N		Please refer to gene	N	Please refer to ge	N	Please refer to gene	
E9.38	Other direct costs	-	£'000	I	N		N		N		N		N		N		N		N		Please refer to general	N	Please refer to gener	N	Please refer to gene	N	Please refer to ge	N	Please refer to gene	
E9.39	Total direct costs	T17b, L34	£'000	C	N		N		N		N		N		N		N		N		N		N		N		N			
E9.40	General and support expenditure	T17b, L37	£'000	I	N		N		N		N		N		N		N		N		N		N		N		N			
E9.41	Functional Expenditure	T17b, L38	£'000	C	N		N		N		N		N		N		N		N		N		N		N		N			
E9.42	Estimated terminal pumping station costs	T17b, L39	£'000	I	N	Please refer to gener	N	Please refer to ge	N	Please refer to gene	N		N	Please refer to g	N		N	Please refer to gener	N	Please refer to ge	N	Please refer to general	N	Please refer to gener	N	Please refer to gene	N	Please refer to ge	N	Please refer to gene	
E9.43	Estimated sludge costs	T17b, L40	£'000	I	N	Please refer to gener	N	Please refer to ge	N	Please refer to gene	N	Please refer to ge	N	Please refer to g	N	Please refer to gen	N	Please refer to gener	N	Please refer to ge	N	Please refer to general	N	Please refer to gener	N	Please refer to gene	N	Please refer to ge	N	Please refer to gene	

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Edition 1

SCOTTISH WATER

ANNUAL RETURN INFORMATION REQUIREMENT

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	270 27	
	Works Size		Name		Comment Necessary Y/N	Comment
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	Migration of data to
E9.4	Tanker load received by works	T17b, L5	kg/COD/day	I	N	Migration of data to
E9.5	Population equivalent of total laod received	T17b, L6	000	I	N	
	Treatability					
E9.6	Biological Oxygen Demand (BOD5) of influent	T17b, L7	mg/l	I	N	
E9.7	Chemical Oxygen Demand (COD) of influent	T17b, L8	mg/l	I	N	
E9.8	Total Organic Carbon (TOC) of influent	T17b, L9	mg/l	I	N	Scottish Water doe
E9.9	Suspended solids (SS) of influent	T17b, L10	mg/l	I	N	
E9.10	Ammoniacal Nitrogen (NH3) of influent	T17b, L11	mg/l	I	N	
	Compliance					
E9.11	Suspended solids consent	T17b, L12	mg/l	I	N	
E9.12	BOD consent	T17b, L13	mg/l	I	N	
E9.13	COD consent	T17b, L14	mg/l	I	N	
E9.14	Ammonia consent	T17b, L15	mg/l	I	N	This parameter is r
E9.15	Phosphate consent	T17b, L16	mg/l	I	N	This parameter is r
E9.16	Compliance with effluent consent standard	T17b, L17	%	I	N	
	Flow					
E9.17	Average daily flow in dry weather	T17b, L18	Ml/d	I	N	
E9.18	Ratio of daily maximum to to minimum flow	T17b, L19	nr	I	N	Minimum flow is ze
	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	All own sludge cos
E9.31	Sludge centre	T17b, L32	1/0	I	N	
E9.32	Sludge centre costs	T17b, L33	1/0	I	N	All sludge centre co
	Works Cost					
E9.33	Employment costs	-	£'000	I	N	Please refer to gen
E9.34	Power costs	T17b, L35	£'000	I	N	Please refer to gen
E9.35	Hired and contracted services	-	£'000	I	N	
E9.36	Materials and consumables	-	£'000	I	N	Please refer to gen
E9.37	Service charges SEPA	-	£'000	I	N	
E9.38	Other direct costs	-	£'000	I	N	Please refer to gen
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 gen
E9.43	Estimated sludge costs	T17b, L40	£'000	I	N	Please refer to gen

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Edition 1

SCOTTISH WATER

ANNUAL RETURN INFORMATION REQUIREMENT

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	280		290		300		310		320		330		340		350		360		370	
					28		29		30		31		32		33		34		35		36		37	
	Works Size		Name		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
E9.0	Name	-		I																				
E9.1	Annual average resident connected population	T17b, L2	000	I	N		N		N		N		N		N		N		N		N		N	
E9.2	Annual average non-resident connected population	T17b, L3	000	I	N		N		N		N		N		N		N		N		N		N	
E9.3	Trade effluent load received by works	T17b, L4	kg/COD/day	I	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to r	N	Migration of data to r	N	Migration of data to
E9.4	Tanker load received by works	T17b, L5	kg/COD/day	I	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to	N	Migration of data to r	N	Migration of data to r	N	Migration of data to
E9.5	Population equivalent of total laod received	T17b, L6	000	I	N		N		N		N		N		N		N		N		N		N	
	Treatability																							
E9.6	Biological Oxygen Demand (BOD5) of influent	T17b, L7	mg/l	I	N		N		N		N		N		N		N		N		N		N	
E9.7	Chemical Oxygen Demand (COD) of influent	T17b, L8	mg/l	I	N		N		N		N		N		N		N		N		N		N	
E9.8	Total Organic Carbon (TOC) of influent	T17b, L9	mg/l	I	N	Scottish Water doe	N	Scottish Water doe	N	Scottish Water do	N	Scottish Water doe	N	Scottish Water do	N	Scottish Water do	N	Scottish Water does	N	Scottish Water does	N	Scottish Water does	N	Scottish Water does
E9.9	Suspended solids (SS) of influent	T17b, L10	mg/l	I	N		N		N		N		N		N		N		N		N		N	
E9.10	Ammoniacal Nitrogen (NH3) of influent	T17b, L11	mg/l	I	N	No ammonia conse	N	No ammonia conse	N	No ammonia cons	N		N		N	No ammonia cons	N		N	No ammonia consent	N		N	
	Compliance																							
E9.11	Suspended solids consent	T17b, L12	mg/l	I	N		N	This parameter is r	N	This parameter is	N	This parameter is r	N	This parameter is	N	This parameter is	N		N	This parameter is no	N		N	This parameter is n
E9.12	BOD consent	T17b, L13	mg/l	I	N		N		N		N		N		N		N		N		N		N	
E9.13	COD consent	T17b, L14	mg/l	I	N	This parameter is r	N		N		N		N		N		N		N		N		N	
E9.14	Ammonia consent	T17b, L15	mg/l	I	N	This parameter is r	N	This parameter is r	N	This parameter is	N		N		N	This parameter is	N		N	This parameter is no	N	This parameter is no	N	
E9.15	Phosphate consent	T17b, L16	mg/l	I	N	This parameter is r	N	This parameter is r	N	This parameter is	N	This parameter is r	N		N	This parameter is	N		N	This parameter is no	N	This parameter is no	N	This parameter is n
E9.16	Compliance with effluent consent standard	T17b, L17	%	I	N		N		N		N		N		N		N		N		N		N	
	Flow																							
E9.17	Average daily flow in dry weather	T17b, L18	Ml/d	I	N		N		N		N		N		N		N		N		N		N	
E9.18	Ratio of daily maximum to to minimum flow	T17b, L19	nr	I	N		N		N		N	Minimum flow is ze	N		N		N		N		N		N	Minimum flow is zer
	Treatment Works Category																							
E9.19	Primary	T17b, L20	1/0	I	N		N		N		N		N		N		N		N		N		N	
E9.20	Secondary activated sludge	T17b, L21	1/0	I	N		N		N		N		N		N		N		N		N		N	
E9.21	Secondary biological	T17b, L22	1/0	I	N		N		N		N		N		N		N		N		N		N	
E9.22	Tertiary A1	T17b, L23	1/0	I	N		N		N		N		N		N		N		N		N		N	
E9.23	Tertiary A2	T17b, L24	1/0	I	N		N		N		N		N		N		N		N		N		N	
E9.24	Tertiary B1	T17b, L25	1/0	I	N		N		N		N		N		N		N		N		N		N	
E9.25	Tertiary B2	T17b, L26	1/0	I	N		N		N		N		N		N		N		N		N		N	
	Miscellaneous Data																							
E9.26	Distance to next works	T17b, L27	km	I	N		N		N		N		N		N		N		N		N		N	
E9.27	Sea outfalls at works	T17b, L28	1/0	I	N		N		N		N		N		N		N		N		N		N	
E9.28	Terminal Pumping costs	T17b, L29	1/0	I	N		N		N		N		N		N		N		N		N		N	
E9.29	Own sludge	T17b, L30	1/0	I	N		N		N		N		N		N		N		N		N		N	
E9.30	Own sludge costs	T17b, L31	1/0	I	N	All own sludge cost	N	All own sludge cost	N	All own sludge cos	N	All own sludge cos	N	All own sludge cor	N	All own sludge cos	N	All own sludge cost	N	All own sludge costs	N	All own sludge costs	N	All own sludge cost
E9.31	Sludge centre	T17b, L32	1/0	I	N		N		N		N		N		N		N		N		N		N	
E9.32	Sludge centre costs	T17b, L33	1/0	I	N	All sludge centre co	N	All sludge centre co	N	All sludge centre c	N	All sludge centre co	N	All sludge centre c	N	All sludge centre co	N	All sludge centre co	N	All sludge centre cos	N	All sludge centre cos	N	All sludge centre co
	Works Cost																							
E9.33	Employment costs	-	£'000	I	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to ge	N	Please refer to gen	N	Please refer to gen	N	Please refer to gener	N	Please refer to gener	N	Please refer to gen
E9.34	Power costs	T17b, L35	£'000	I	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to ge	N	Please refer to gen	N	Please refer to gen	N	Please refer to gener	N	Please refer to gener	N	Please refer to gen
E9.35	Hired and contracted services	-	£'000	I	N		N		N		N		N		N		N		N		N		N	
E9.36	Materials and consumables	-	£'000	I	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to ge	N	Please refer to gen	N	Please refer to gen	N	Please refer to gener	N	Please refer to gener	N	Please refer to gen
E9.37	Service charges SEPA	-	£'000	I	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N		N	Please refer to ge	N		N	Please refer to gen	N	Please refer to gener	N	Please refer to gener	N	
E9.38	Other direct costs	-	£'000	I	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to ge	N	Please refer to gen	N	Please refer to gen	N	Please refer to gener	N	Please refer to gener	N	Please refer to gen
E9.39	Total direct costs	T17b, L34	£'000	C	N		N		N		N		N		N		N		N		N		N	
E9.40	General and support expenditure	T17b, L37	£'000	I	N		N		N		N		N		N		N		N		N		N	
E9.41	Functional Expenditure	T17b, L38	£'000	C	N		N		N		N		N		N		N		N		N		N	
E9.42	Estimated terminal pumping station costs	T17b, L39	£'000	I	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to ge	N	Please refer to gen	N	Please refer to gen	N	Please refer to gener	N	Please refer to gener	N	Please refer to gen
E9.43	Estimated sludge costs	T17b, L40	£'000	I	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to ge	N	Please refer to gen	N	Please refer to gen	N	Please refer to gener	N	Please refer to gener	N	Please refer to gen

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Authorised by: Geoff Aitkenhead Date: .....

Edition 1

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	10 Farmland Untreated	CG	11 Farmland Conventional	CG	12 Farmland Advanced	CG	20 Landfill	CG	30 Incineration	CG	31 Composted	CG	32 Land Reclamation	CG	40 Not in use	CG	50 Other	CG	199 Total	CG
	Sludge volumes																							
E10.1	Resident population served	T17g, L1	0	I	0	B3	415	B3	781	B3	57	B3	1868	B3	101	B3	1461	B3			37	B3	4720	B3
E10.2	Amount of sewage sludge	T17g, L2	ttds	I	0	A1	6.5	B3	14.1	B3	0.3	B3	54	B3	2.3	B3	34.9	B3			0.5	B3	112.6	B3
	Sludge Treatment and Disposal costs																							
E10.3	Employment costs	T17g, L3	£000	I	0	N	672.1	C4	644.1	C4	8.9	C4	395.2	C4	458.8	C4	1327.5	C4			7.4	C4	3514	C4
E10.4	Power costs	T17g, L6	£000	I	0	N	188.9	C4	22.9	C4	0.5	C4	0.4	C4	95.1	C4	150.1	C4			0	C4	457.9	C4
E10.5	Hired and contracted services	-	£000	I	0	N	1338.7	C4	4575.4	C4	40.6	C4	6875.4	C4	254.2	C4	4880.8	C4			0.5	C4	17965.6	C4
E10.6	Materials and consumables	-	£000	I	0	N	61.1	C4	34.9	C4	0.7	C4	3.1	C4	54.8	C4	210.3	C4			0	C4	364.9	C4
E10.7	Service charges SEPA	-	£000	I	0	N	0	C4	10.3	C4	0	C4	99.8	C4	0	C4	24.3	C4			0.3	C4	134.7	C4
E10.8	Other direct costs	-	£000	I	0	N	8.2	C4	9.3	C4	0.1	C4	1.5	C4	5.9	C4	33	C4			0	C4	58	C4
E10.9	Total direct costs	T17g, L5	£000	C	0	N	2269	C4	5296.9	C4	50.8	C4	7375.4	C4	868.8	C4	6626	C4			8.2	C4	22495.1	C4
E10.10	General and support expenditure	T17g, L8	£000	I	0	N	378.8	C4	591.8	C4	6	C4	102.3	C4	302.1	C4	1336	C4			12	C4	2729	C4
E10.11	Functional Expenditure	T17g, L9	£000	C	0	N	2647.8	C4	5888.7	C4	56.8	C4	7477.7	C4	1170.9	C4	7962	C4			20.2	C4	25224.1	C4

	Sludge Treatment Type				No Sludge	CG	Own Sludge	CG	Sludge Centre	CG
E10.12	In treatment works size band 0	-	nr	I	1100	B2	0	B2	0	B2
E10.13	In treatment works size band 1	-	nr	I	332	B2	0	B2	0	B2
E10.14	In treatment works size band 2	-	nr	I	182	B2	0	B2	0	B2
E10.15	In treatment works size band 3	-	nr	I	206	B2	0	B2	0	B2
E10.16	In treatment works size band 4	-	nr	I	132	B2	3	B2	3	B2
E10.17	In treatment works size band 5	-	nr	I	35	B2	2	B2	8	B2
E10.18	In treatment works size band 6	-	nr	I	13	B2	1	B2	7	B2
E10.19	PPP schemes	-	nr	I	12	B2	1	B2	8	B2

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Edition 2

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

Line Ref.	Description	Ofwat Ref	Units		Field Type
	Sludge volumes				
E10.1	Resident population served	T17g, L1	0		I
E10.2	Amount of sewage sludge	T17g, L2	ttds		I
	Sludge Treatment and Disposal cc				
E10.3	Employment costs	T17g, L3	£000		I
E10.4	Power costs	T17g, L6	£000		I
E10.5	Hired and contracted services	-	£000		I
E10.6	Materials and consumables	-	£000		I
E10.7	Service charges SEPA	-	£000		I
E10.8	Other direct costs	-	£000		I
E10.9	Total direct costs	T17g, L5	£000		C
E10.10	General and support expenditure	T17g, L8	£000		I
E10.11	Functional Expenditure	T17g, L9	£000		C
	Sludge Treatment Type				
E10.12	In treatment works size band 0	-	nr		I
E10.13	In treatment works size band 1	-	nr		I
E10.14	In treatment works size band 2	-	nr		I
E10.15	In treatment works size band 3	-	nr		I
E10.16	In treatment works size band 4	-	nr		I
E10.17	In treatment works size band 5	-	nr		I
E10.18	In treatment works size band 6	-	nr		I
E10.19	PPP schemes	-	nr		I

10 Farmland Untreated		11 Farmland Conventional		12 Farmland Advanced		20 Landfill		30 Incineration		31 Composted		32 Land Reclamation		40 Not in use		50 Other		199 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
																			General
N		N		N		N		N		N		N		N		N		N	A1 G
N		N		N		N		N		N		N		N		N		N	A2 G
																			A3 G
																			A4 N
N	SW does not dispose	N	Please refer to generi	N	Please refer to generi	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to general comments on cost capture	N	Please refer to general co	N	Please refer to general comments	N	AX G
N	SW does not dispose	N	Please refer to generi	N	Please refer to generi	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to general comments on cost capture	N	Please refer to general co	N	Please refer to general comments	N	B2 G
N	SW does not dispose	N	Please refer to generi	N	Please refer to generi	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to general comments on cost capture	N	Please refer to general co	N	Please refer to general comments	N	B3 G
N	SW does not dispose	N	Please refer to generi	N	Please refer to generi	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to general comments on cost capture	N	Please refer to general co	N	Please refer to general comments	N	B4 N
N	SW does not dispose	N	Please refer to generi	N	Please refer to generi	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to general comments on cost capture	N	Please refer to general co	N	Please refer to general comments	N	BX G
N	SW does not dispose	N	Please refer to generi	N	Please refer to generi	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to general comments on cost capture	N	Please refer to general co	N	Please refer to general comments	N	C2 N
N	SW does not dispose	N	Please refer to generi	N	Please refer to generi	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to general comments on cost capture	N	Please refer to general co	N	Please refer to general comments	N	C3 N
																			C4 N
N	SW does not dispose	N	Please refer to generi	N	Please refer to generi	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to general comments on cost capture	N	Please refer to general co	N	Please refer to general comments	N	C5 N
N	SW does not dispose	N	Please refer to generi	N	Please refer to generi	N	Please refer to gen	N	Please refer to gen	N	Please refer to gen	N	Please refer to general comments on cost capture	N	Please refer to general co	N	Please refer to general comments	N	CX N
																			M N
																			N N
N						N		N											D3 N
N						N		N											D4 N
N						N		N											D5 N
N						N		N											D6 N
N						N		N											DX N
N						N		N											
N						N		N											
N						N		N											
N						N		N											
N						N		N											
N						N		N											
N						N		N											
N						N		N											

Issues with data	Problem ?		Solution
E10.11 should equal E2.12	Y	199	Please amend numbers so they reconcile
E10.10 should equal E2.10 + E2.11	N	199	No solution required
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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Edition 2

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

Line Ref.	Description	Ofwat Ref	Units	Field Type	10 Water Service CG		20 Wastewater Service CG	
	Employee numbers							
E11.1	Direct operations	-	nr	I	1071	B2	904	B2
E11.2	Indirect operations (General and support)	-	nr	I	270	B2	160	B2
E11.3	Other (incl hired and contracted)	-	nr	I	364	B2	194	B2
E11.4	Total employee numbers	-	nr	C	1705	B2	1258	B2
	Management and General Assets							
E11.5	Number of Offices	-	nr	I	40	B2	40	B2
E11.6	Area of Offices	-	m^2	I	26631	B2	24951	B2
E11.7	Number of Laboratories	-	nr	I	3	B2	2	B2
E11.8	Area of Laboratories	-	m^2	I	15235	C3	1493	C3
E11.9	Number of Depots	-	nr	I	74	B2	66	B2
E11.10	Area of Depots	-	m^2	I	49578	C3	40837	C3
E11.11	Number of Workshops	-	nr	I	0	C3	0	C3
E11.12	Area of Workshops	-	m^2	I	0	C3	0	C3
E11.13	Number of Control Centres	-	nr	I	4	B2	4	B2
E11.14	Area of Control Centres	-	m^2	I	420	C3	200	C3
E11.15	Vehicles & Plant	-	£m	I	23.994	C3	17.706	C3
E11.16	% Coverage of Telemetry Systems	-	%	I	14.85	B2	18.15	B2
E11.17	Number of Telemetry Outstations	-	nr	I	1395	B2	1705	B2
E11.18	Information Systems: Personal Computers	-	nr	I	2923	C3	2157	C3
E11.19	Information Systems: Workstations	-	nr	I	167	C3	124	C3
E11.20	Information Systems: Mainframes	-	nr	I	12	B2	12	B2

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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 Water Service	Comment Necessary Y/N	Comment	20 Wastewater Service	Comment Necessary Y/N	Comment		
Employee numbers											General	
E11.1	Direct operations	-	nr	I	N			N			A1	G
E11.2	Indirect operations (General and support)	-	nr	I	N			N			A2	G
E11.3	Other (incl hired and contracted)	-	nr	I	N			N			A3	G
E11.4	Total employee numbers	-	nr	C	N			N			A4	N
											AX	G
Management and General Assets											B2	G
E11.5	Number of Offices	-	nr	I	N			N			B3	G
E11.6	Area of Offices	-	m^2	I	N			N			B4	N
E11.7	Number of Laboratories	-	nr	I	N			N			BX	N
E11.8	Area of Laboratories	-	m^2	I	N	Sourced from historic		N	Sourced from historical records or estimated		C2	N
E11.9	Number of Depots	-	nr	I	N			N			C3	N
E11.10	Area of Depots	-	m^2	I	N	Sourced from historic		N	Sourced from historical records or estimated		C4	N
E11.11	Number of Workshops	-	nr	I	N	Sourced from historic		N	Sourced from historical records or estimated		C5	N
E11.12	Area of Workshops	-	m^2	I	N	Sourced from historic		N	Sourced from historical records or estimated		CX	N
E11.13	Number of Control Centres	-	nr	I	N			N			M	N
E11.14	Area of Control Centres	-	m^2	I	N	Sourced from historic		N	Sourced from historical records or estimated		N	N
E11.15	Vehicles & Plant	-	£m	I	N	Allocation based on t		N	Allocation based on the split for employee numbers		D3	N
E11.16	% Coverage of Telemetry Systems	-	%	I	N			N			D4	N
E11.17	Number of Telemetry Outstations	-	nr	I	N			N			D5	N
E11.18	Information Systems: Personal Computers	-	nr	I	N	Allocation based on t		N	Allocation based on the split for employee numbers		D6	N
E11.19	Information Systems: Workstations	-	nr	I	N	Allocation based on t		N	Allocation based on the split for employee numbers		DX	N
E11.20	Information Systems: Mainframes	-	nr	I	N			N				

Issues with data	Problem ?	Solution

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