



	e E1a: Activity Based Costing -										Done	+ Vac-		2004	ΛE				
					10	20	30	40	50	60	Repor	210		2004	240	250	260	299	999
Line	Description	Ofwat	Unite	Field	10		er Res				199	210	220		r Distri		200	299	Water
Ref.	Description	Ref	Office	Type		vvai	ei nesi	Juices	ox IIIeai	mem	sub		T	wate	ווופוט	Dution		sub	Service
		JR 00		71	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	total	Total C
	-																		
	Service Analysis - Water : Direct Costs										-								
E1.0		-		- 1															
E1.1	Employment costs Power	T21, L1 T21, L2	£m	I/C							0		-					0	0
	Hired and contracted services	T21, L2	£m	I/C							0		1					0	0
E1.4			£m	I/C							0							0	0
	Materials and consumables	T21, L6	£m	I/C							0							0	0
E1.6		T21, L7	£m	I/C							0							0	0
E1.7 E1.8		T21, L8 T21, L9	£m	I/C							0		1			$\vdash$		0	0
					_	_			_	_	Ü				_			0	- 0
E1.9	Total direct costs  General and support employment costs	T21, L10	£m	C I/C	0	0	0	0	0	0	0		) (	0	0	0	0	0	0
	General and support employment costs  General and support other costs	-	£m	I/C							0							0	0
F1.12	Functional expenditure	T21, L12	£m	С	0	0	0	0	0	0	0		) (	0	0	0	0	0	0
	and the second second		,																
	Operating Expenditure																		
	Customer services	T21, L13		-1															
	Scientific services	T21, L14		- 1															
	Other business activities Total business activities	T21, L15 T21, L16		C															0
				U															U
	Local authority rates Doubtful debts	T21, L17	£m	- 1															
	·	T21, L18	£m																
	Exceptional items - start-up costs		£m	- 1															
	Exceptional items - reorganisation costs  Exceptional items - severance costs		£m	$\perp$															
	Exceptional items - other costs (specify)		£m	ì															
E1.23	Total Exceptional items	T21, L19	£m	С															0
E1.24	Total opex less third party services	T21, L20	£m	С															0
	Third party services - opex	T21, L21	£m	İ															
E1.26	Total operating expenditure	T21, L16	£m	С															0
	Reactive and Planned Maintenance (inclu	dad in One	w)	$\equiv$															
E1 27	Reactive and Planned Maintenance (Inclu Reactive and planned maintenance infrastructure	T21,L23	£m	I/C							0		т —			$\overline{}$		0	0
	Reactive and planned maintenance infrastructure	T21,L23	£m	I/C							0		1					0	0
	Capital Maintenance																		
	Infrastructure depreciation charge	T21, L25	£m	I/C															0
	Non-infrastructure depreciation charge	T21, L26	£m	I/C															0
E1.31	Amortisation of deferred credits  Amortisation of intangible assets	T21, L28 T21, L29	£m	- 1															
E1.32	Business activities depreciation charge	T21, L29	£m	i i															
	Capital maintenance less third party services	T21, L31	£m	С															0
	Third party services - depreciation	T21, L31	£m	ī															0
	Total capital maintenance	T21, L33	£m	C															
C1.30	PPP Costs	121, 133	į Ziil																0
E1 07	Total annual charge for PPP schemes	T21, L25	£m																
	Annual charge for PPP schemes  Annual charge for PPP schemes less estimated running	T21, L25	£m	C															0
	Total operating costs	T21,L34	£m	C															0
		121,204	1 200	Ŭ															
Prepare	ed by:	Date:																	
-																			
	d by:	Date:																	

Edition 2

Date:

Authorised by:

Date: April 2006 Version 9.0 Table 1a of 11

### ANNUAL RETURN INFORMATION REQUIREMENTS



<b>SECTION E: OPERATING COSTS AND EFFICIENCY</b>
Table E1b: Activity Based Costing - Water Service

Tab	e E1b: Activity Based Costing - W	rater Se	VICE	,							Dan	o # \/	00r	2005	ne				
					10	00	00	10	- 50	00		ort Y		2005-		0.10	-0 000	000	000
	L				10	20	30	40	50	60	199	210	220				50 260	299	999
Line	Description	Ofwat	Units	Field		Wat	er Res	ources	& Treat	ment				Wa	ter E	Distributi	on		Water Camilas
Ref.		Ref		Туре							sub							sub	Water Service
		JR 00			Area 1 A	Area 2	Area 3	Area 4	Area 5	Area 6	total	Area	1 Area	2 Area	3 Aı	rea 4 Are	a 5 Area	6 total	Total CG
	Service Analysis - Water : Direct Costs																		
E1.0	Name		1		NW N	1E	SE	SW			1	NW	NE	SE	SV	۸/			
E1.1		T21, L1	£m	I/C	3.524	2.323	1.927	_			11.962	3.8				7.756		18.934	30.896 A2
E1.2		T21, L1	£m	I/C	1.493	1.466	1.053				5.749	0.2				2.952		5.009	10.758 A2
E1.3		T21, L4	£m	I/C	0.692	0.313	0.466				2.508	0.5				0.648		3.086	5.594 A2
E1.4		-	£m	I/C	0	0	C				0		0	0	0	0		0	0 N
E1.5	Materials and consumables	T21, L6	£m	I/C	1.658	1.512	1.281	4.193			8.644	0.4	33 0.2	27 0.2	17	0.269		1.146	9.79 A2
E1.6	Service charges SEPA	T21, L7	£m	I/C	0.143	0.028	0.063	0.081			0.315		0	0	0	0.04		0.04	0.355 A2
E1.7	Bulk supply imports	T21, L8	£m	I/C	0	0	C	,			0		0	0	0	0		0	0 N
E1.8	Other direct costs	T21, L9	£m	I/C	0.221	0.268	0.195	0.472			1.156	0.1	0.3	25 0.3	33	0.969		1.73	2.886 A2
E1.9		T21, L10	£m	С	7.731	5.91	4.985		0	0		5.1				12.634	0	0 29.945	60.279 A2
E1.10	General and support employment costs	-	£m	I/C	0.788	0.666	0.607				3.086	0.		98 0.83		1.388		3.944	7.03 A2
E1.11	General and support other costs	-	£m	I/C	1.498	1.085	1.012	1.598			5.193	2.1	26 2.	28 1.7	77	3.823		10.006	15.199 A3
E1.12	Functional expenditure	T21, L12	£m	С	10.017	7.661	6.604	14.331	0	0	38.613	8.0	12 9.8	77 8.10	31 1	17.845	0	0 43.895	82.508 A2
	Operating Expenditure																		
E1 12	Customer services	T21, L13	£m																12.948 A2
E1.13		T21, L13	£m	i															9.362 A2
	Other business activities	T21, L15	£m	i															1.817 A2
	Total business activities	T21, L16	£m	C															24.127 A2
E1.17	Local authority rates	T21, L17	£m																17.139 A2
	Doubtful debts	T21, L18	£m	I															13.283 A2
E1.19	Exceptional items - start-up costs		£m																0 N
	Exceptional items - reorganisation costs	-	£m	ı															0.974 A2
E1.21		-	£m	I															1.71 A2
E1.22	Exceptional items - other costs (specify)	-	£m	- 1															0 N
E1.23	Total Exceptional items	T21, L19	£m	С															2.684 A2
E1.24	Total opex less third party services	T21, L20	£m	С															139.741 A2
E1.25	Third party services - opex	T21, L21	£m	I															47 A3
E1.26	Total operating expenditure	T21, L16	£m	С															186.741 A2
	Reactive and Planned Maintenance (include	ed in Opex	()																
E1.27	Reactive and planned maintenance infrastructure	T21,L23	£m	I/C	0	0	C	0 0	0	0	0	2.1	17 2.	61 2.63	32	5.761	0	0 13.12	13.12 D3
E1.28	Reactive and planned maintenance non-infrastructure	T21,L24	£m	I/C	1.756	0.773	0.751	1.69	0	0	4.97	0.4	0.3	04 0.	17	0.484	0	0 1.364	6.334 D3
	Capital Maintenance																		
E1 20	Infrastructure depreciation charge	T21, L25	£m	I/C						Ī	3.83							75.526	79.356 A2
	Non-infrastructure depreciation charge	T21, L25	£m	I/C						ŀ	42.318							20.29	62.608 A3
	Amortisation of deferred credits	T21, L28	£m	I						L	42.010							20.20	-0.441 A2
E1.32		T21, L29	£m	ı															0 N
	Business activities depreciation charge	T21, L30	£m	İ															3.626 A3
F1 34	Capital maintenance less third party services	T21, L31	£m	С															145.149 A2
	Third party services - depreciation	T21, L31	£m	I															0 A2
	Total capital maintenance	T21, L33	£m	С															145.149 A2
21.00	PPP Costs		4111																140.140 /12
F1 37	Total annual charge for PPP schemes	T21, L25	£m	,															0 N
	Annual charge for PPP schemes less estimated running	T21, L26	£m	C															0 N
	Total operating costs	T21,L34	£m	С															331.89 A2
00		,		Ŭ															001.001.12

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

Edition 2

Date : April 2006 Version 9.0 Table 1b of 11



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

Line Ref.	Description	Ofwat Ref JR 00	Units	Field Type
--------------	-------------	-----------------------	-------	---------------

		01100		
	Service Analysis - Water : Direct Costs			
E1.0	Name	-		1
E1.1	Employment costs	T21, L1	£m	I/C
E1.2	Power	T21, L2	£m	I/C
E1.3	Hired and contracted services	T21, L4	£m	I/C
E1.4	Estimated running cost of PPP schemes		£m	I/C
E1.5	Materials and consumables	T21, L6	£m	I/C
E1.6	Service charges SEPA	T21, L7	£m	I/C
E1.7	Bulk supply imports	T21, L8	£m	I/C
E10	Other direct costs	T01 L0	Cm	I/C

E1.9	Total direct costs	T21, L10	£m	C
E1.10	General and support employment costs		£m	I/C
E1.11	General and support other costs	-	£m	I/C

	E1.12	Functional expenditure	T21, L12	£m	С
--	-------	------------------------	----------	----	---

E1.12	Functional expenditure	121, L12	£m	C
	Operating Expenditure			
E1.13	Customer services	T21, L13	£m	
E1.14	Scientific services	T21, L14	£m	_
E1.15	Other business activities	T21, L15	£m	_
E1.16	Total business activities	T21, L16	£m	O
E1.17	Local authority rates	T21, L17	£m	
E1.18	Doubtful debts	T21, L18	£m	÷
=		,		
E1.19	Exceptional items - start-up costs	-	£m	
E1.20	Exceptional items - reorganisation costs	-	£m	ı
E1.21	Exceptional items - severance costs	-	£m	ı
E1.22	Exceptional items - other costs (specify)	-	£m	- 1
E1.23	Total Exceptional items	T21, L19	£m	С
E1.24	Total opex less third party services	T21, L20	£m	С
E1.25	Third party services - opex	T21, L21	£m	ı
E1.26	Total operating expenditure	T21, L16	£m	С
	Reactive and Planned Maintenance (include	ed in Opex	:)	
E1.27	Reactive and planned maintenance infrastructure	T21,L23	£m	I/C
E1.28	Reactive and planned maintenance non-infrastructure	T21,L24	£m	I/C

	Capital Maintenance			
E1.29	Infrastructure depreciation charge	T21, L25	£m	I/C
E1.30	Non-infrastructure depreciation charge	T21, L26	£m	I/C
E1.31	Amortisation of deferred credits	T21, L28	£m	_
E1.32	Amortisation of intangible assets	T21, L29	£m	
E1.33	Business activities depreciation charge	T21, L30	£m	_
E1.34	Capital maintenance less third party services	T21, L31	£m	С
E1.34	Third party services - depreciation	T21, L31	£m	-
E1.35	Trilla party services - depreciation	121, L32	2,111	'
E1.36	Total capital maintenance	T21, L33	£m	С
	PPP Costs			
E1.37	Total annual charge for PPP schemes	T21, L25	£m	I
E1.38	Annual charge for PPP schemes less estimated runnin	T21, L26	£m	С
E1.39	Total operating costs	T21,L34	£m	С

999
Report Year
2005-06

Comment Necessary	Comment
Y/N	

			General	Bencl	nmarking A1
		A1	G	A1	G
		A2	G	A2	N
N	Please refer to commentary	A3	G	A3	N
N	Please refer to commentary	A4	N	A4	N
N	Please refer to commentary	AX	G	AX	G
N	Please refer to commentary	B2	G	B2	N
N	Please refer to commentary	В3	G	В3	N
N	Please refer to commentary	B4	N	B4	N
N	Please refer to commentary	BX	G	BX	N
N	Please refer to commentary	C2	N	C2	N
		C3	N	C3	N
N	Please refer to commentary	C4	N	C4	N
N	Please refer to commentary	C5	N	C5	N
N	Please refer to commentary	CX	N	CX	N
	•	M	N	M	N
N	Please refer to commentary	N	N	N	N
		D3	N	D3	N
		D4	N	D4	N
N	Please refer to commentary	D5	N	D5	N
N	Please refer to commentary	D6	N	D6	N
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Issues with data

E1.29 should equal F9.8 (col 2) Please amend numbers so they reconcile

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

Edition 2

Date : April 2006 Version 9.0 Table 1b of 11



-				Report	Year + 1 Bud	get 2006-07	Report	Year + 1 Fored	east 2006-07	Repor	t Year + 2 Bud	get 2007-08
Line Description	Ofwat	Units		Water Resources & Treatment	Water Distribution	50 Water Service	Water Resources & Treatment	Water Distribution	150 Water Sevice	Water Resources & Treatment	Water Distribution	250 Water Service
Ref.	Ref JR00		Туре	sub total	sub total	Total CG	sub total	sub total	Total CG	sub total	sub total	Total Co
Service Analysis - Water : Direct Costs												
E1.0 Not in use												
E1.1 Employment costs	T21, L1	£m	I/C	11.547	18.276	29.823 B3	11.547	18.276	29.823 B3	11.778	18.643	30.421 B3
E1.2 Power	T21, L2	£m	I/C	6.526	3.858	10.384 B3	6.526	3.858	10.384 B3	6.657	3.936	10.593 B3
E1.3 Hired and contracted services  E1.4 Estimated running costs of PPP schemes	T21, L4	£m £m	I/C	2.421	2.979	5.4 B3 0 N	2.421	2.979	5.4 B3 0 N	2.469	3.039	5.508 B3 0 N
E1.4 Estimated running costs of PPP scriemes E1.5 Materials and consumables	T21, L6	£m	I/C	8.344	1.106	9.45 B3	8.344	1.106	9.45 B3	8.511	1.128	9.639 B3
E1.6 Service charges SEPA	T21, L7	£m	I/C	0.304	0.039	0.343 B3	0.304	0.039	0.343 B3	0.31	0.039	0.349 B3
E1.7 Bulk supply imports	T21, L8	£m	I/C	0	0	0 N	0	0	0 N	0	0	0 N
E1.8 Other direct costs	T21, L9	£m	I/C	1.116	1.67	2.786 B3	1.116	1.67	2.786 B3	1.138	1.703	2.841 B3
E1.9 Total direct costs	T21, L10	£m	С	30.258	27.928	58.186 B3	30.258	27.928	58.186 B3	30.863	28.488	59.351 B3
E1.10 General and support employment costs	-	£m	I/C	2.979	3.807	6.786 B3	2.979	3.807	6.786 B3	3.039	3.883	6.922 B3
E1.11 General and support other costs	-	£m	I/C	5.013	9.658	14.671 B3	5.013	9.658	14.671 B3	5.113	9.852	14.965 B3
E1.12 Functional expenditure	T21, L12	£m	С	38.25	41.393	79.643 B3	38.25	41.393	79.643 B3	39.015	42.223	81.238 B3
Operating Expenditure												
	T21, L13	£m	- 1			12.498 B3			12.498 B3			12.749 B3
	T21, L14	£m	- 1			9.037 B3			9.037 B3			9.218 B3
	T21, L15	£m	1			1.754 B3			1.754 B3			1.789 B3
E1.16 Total business activities	T21, L16	£m	С			23.289 B3			23.289 B3			23.756 B3
	T21, L17 T21, L18	£m £m	<u> </u>			16.544 B3 12.002 B3			16.544 B3 12.002 B3			16.876 B3 12.243 B3
E1.19 Exceptional items - start-up costs	-	£m				0 N			0 N			0 N
E1.20 Exceptional items - reorganisation costs	-	£m	ı			0 N			0 N			0 N
E1.21 Exceptional items - severance costs	-	£m	- 1			0 N			0 N			0 N
E1.22 Exceptional items - other costs (specify)	- T04 140	£m	1			0 N			0 N			0 N
E1.23 Total Exceptional items	T21, L19	£m	С			0 N			0 N			0 N
	T21, L20	£m	C			131.478 B3			131.478 B3			134.113 B3
	T21, L21	£m	1			28.785 B3 160.263 B3			28.785 B3			29.363 B3 163.476 B3
Reactive and Planned Maintenance (include	T21, L16		С			160.263 63			160.263 B3			163.476 B3
	T21,L23	£m		0	15.18	15.18 D4	0	15.18	15.18 D4	0	15.485	15.485 D4
	T21,L24	£m	İ	5.75	1.578	7.328 D4	5.75	1.578	7.328 D4	5.866	1.61	7.476 D4
Capital Maintenance												
	T21, L25		I/C	3.061	60.352	63.413 B3	3.061	60.352	63.413 B3	3.134	61.794	64.928 B3
	T21, L26	£m	I/C	37.617	18.036	55.653 B3	37.617	18.036	55.653 B3	38.582	18.499	57.081 B3
	T21, L28	£m	!			-0.395 B3			-0.395 B3			-0.395 B3
	T21, L29 T21, L30	£m £m				0 N 3.5 B3			0 N 3.5 B3			0 N 3.57 B3
E1.34   Capital maintenance less third party services	T21, L31	£m	С			122.171 B3			122.171 B3			125.184 B3
	T21, L32	£m				0 B3			0 B3			0 B3
	T21, L33	£m	С			122.171 B3			122.171 B3			125.184 B3
PPP Costs	T01 : ==					- 1.		I	als:			_1.
	T21, L25 T21, L26	£m	C			0 N 0 N			0 N 0 N			0 N 0 N
	T21,L20	•	<u> </u>			282.434 B3			282.434 B3			288.66 B3
	121,134	2111	C			202.404 00			202.404 00			200.00 03
E1.59   Total operating costs												
	)ate: 16/06	/06										
	Date: 16/06	/06										
E1.39   Total operating costs   Prepared by: Laura Wilson												

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Date: April 2006 Table 1c of 11

#### ANNUAL RETURN INFORMATION REQUIREMENTS



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

Line Ref.	Description	Ofwat Ref JR00	Units	Field Type
	Service Analysis - Water : Direct Costs			

E1.0	Not in use			
E1.1	Employment costs	T21, L1	£m	I/C
E1.2	Power	T21, L2	£m	I/C
E1.3	Hired and contracted services	T21, L4	£m	I/C
E1.4	Estimated running costs of PPP schemes	-	£m	I/C
E1.5	Materials and consumables	T21, L6	£m	I/C
E1.6	Service charges SEPA	T21, L7	£m	I/C
E1.7	Bulk supply imports	T21, L8	£m	I/C
E1.8	Other direct costs	T21, L9	£m	I/C
	Total direct costs	T21, L10	£m	O
E1.10	General and support employment costs	-	£m	I/C
E1.11	General and support other costs	-	£m	I/C

E1.12	Functional expenditure	T21, L12	£m	C
	Oneveting Evnenditure			

	Operating Expenditure			
E1.13	Customer services	T21, L13	£m	- 1
E1.14	Scientific services	T21, L14	£m	_
E1.15	Other business activities	T21, L15	£m	_
E1.16	Total business activities	T21, L16	£m	С
E1.17	Local authority rates	T21, L17	£m	ı
E1.18	Doubtful debts	T21, L18	£m	
E1.19	Exceptional items - start-up costs	-	£m	1
E1.20	Exceptional items - reorganisation costs	-	£m	
E1.21	Exceptional items - severance costs	-	£m	
E1.22	Exceptional items - other costs (specify)	-	£m	
E1.23	Total Exceptional items	T21, L19	£m	С
E1.24	Total opex less third party services	T21, L20	£m	С
E1.25	Third party services - opex	T21, L21	£m	Ì
E1.26	Total operating expenditure	T21, L16	£m	С

E1.25	Third party services - opex	T21, L21	£m	_
E1.26	Total operating expenditure	T21, L16	£m	С
	Reactive and Planned Maintenance (include	led in Ope	x)	
E1.27	Reactive and Planned Maintenance (include Reactive and planned maintenance infrastructure	led in Ope T21,L23	£m	1

	Capital Maintenance			
E1.29	Infrastructure depreciation charge	T21, L25	£m	I/C
E1.30	Non-infrastructure depreciation charge	T21, L26	£m	I/C
E1.31	Amortisation of deferred credits	T21, L28	£m	-
E1.32	Amortisation of intangible assets	T21, L29	£m	- 1
E1.33	Business activities depreciation charge	T21, L30	£m	- 1
E1.34	Capital maintenance less third party services	T21, L31	£m	С
	Third party services - depreciation	T21, L32	£m	Ī
E1.36	Total capital maintenance	T21, L33	£m	С
	PPP Costs			
E1.37	Total annual charge for PPP schemes	T21, L25	£m	- 1
E1.38	Annual charge for PPP schemes less estimated runni	T21, L26	£m	С
E1.39	Total operating costs	T21,L34	£m	С

Prepared by: Laura Wilson	<u>.</u>
Checked by: Brian Strathie	l 
Authorised by: Douglas Millican	<u> </u>

Edition 2

Report Year + 1 Budget 2006-07

Comment Necessary Y/N	Comment
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150 Report Year + 1 Forecast 2006-07

Comment Necessary Y/N	Comment
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250 Report Year + 2 Budget 2007-08

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General		Bench	marking B2	Bench	nmarking A2
Α1	G	A1	G	A1	G
A2	G	A2	G	A2	G
АЗ	G	A3	G	A3	N
Α4	N	A4	N	A4	N
AX	G	AX	G	AX	G
B2	G	B2	G	B2	N
ВЗ	G	B3	N	B3	N
B4	N	B4	N	B4	N
вх	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

Date: April 2006 Revision 9.0 Table 1c of 11





	e E2a: Activity Based Costing -										Rep	ort Year	- 1 2004-0	5		
					10	20	30	40	50		70	80	199	210	220	999
_ine Ref.	Description	Ofwat Ref	Units	Field				1	Sewer	age	1	1		Sewage Treatment	Sludge Treatment	Sewerage Service Total
nei.		nei		Туре	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	sub total	Heatment	and Disposal	C
															-	<u>-</u>
	Service Analysis - Waste Water Direct Co	osts	_													
	Name Employment costs	T22, L1	£m	I/C									0			٥
	Power	T22, L2	£m	I/C									0			0
	Hired and contracted services	T22, L4	£m	I/C									0			0
	Not In Use Materials and consumables	T22, L6	0	I/C												
	Service charges SEPA	T22, L6	£m	I/C									0			0
E2.7	Not in use												0			
E2.8	Other direct costs	T22, L8	£m	I/C									0			0
E2.9	Total direct costs	T22, L11	£m	С	0	0	) 0	0	0	0	0	0	0	0	0	0
2.10	General and support employment costs	-	£m	I/C									0			0
2.11	General and support other costs	-	£m	I/C									0			0
2.12	Functional expenditure	T22, L13	£m	С	0	0	0	0	0	0	0	0	0	0	0	0
	Operating Expenditure															
2.13	Customer services	T22, L14	£m													
2.14	Scientific services	T22, L15	£m	i												
	Other business activities	T22, L16		I												
	Total business activities	T22, L17	£m	С												0
	Local authority rates  Doubtful debts	T22, L18 T22, L19		+												
2.10	Doubliul debis	122, 110	LIII													
	Exceptional items - start-up costs		£m	- 1												
	Exceptional items - reorganisation costs	-	£m	- !												
	Exceptional items - severance costs  Exceptional items - other costs (specify)	-	£m	-												
	Total Exceptional items	T22,L20	£m	Ċ												0
	Total opex less third party services	T22,L21	£m	С												0
2.25	Third party services - opex	T22,L22	£m													
2.26	Total operating expenditure	T22,L23	£m	С												0
	Reactive and Planned Maintenance (incl															
2 27	Reactive and planned maintenance infrastructure	T22, L24		I/C									0			0
2.28	Reactive and planned maintenance non-infrastructure	re T22, L25	£m	I/C									0			0
	Capital Maintenance												-		-	-
2 29	Infrastructure depreciation charge	T22, L26	£m	I/C								ī				0
2.30	Non-infrastructure depreciation charge	T22,L28	£m	I/C								İ				0
2.31	Amortisation of deferred credits	T22, L29	£m									-				
	Amortisation of intangible assets	T22, L30	£m	1												
2.33	Business activities depreciation charge	T22, L31	£m	1												
	Capital maintenance less third party services	T22,L32	£m	С												0
2.35	Third party services - depreciation	T22,L33	£m													
2.36	Total capital maintenance	T22,L34	£m	С												0
	Tatal Operating Coats															
2.37	Not In Use		1													
2.38	Not In Use															
	1		_													
2.39	Total operating costs	T22,L35	£m	С												0
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Edition 3

Date: April 2006 Version 9.0 Table 2a of 11

### ANNUAL RETURN INFORMATION REQUIREMENT



											Rep	ort Yea	r 2005-06			
					10	20	30	40	50	60	70	80	199	210	220	999
Line Ref.	Description	Ofwat Ref	Units	Field Type	Area 1	Area 2	Area 3	Area 4	Sewera Area 5	ge Area 6	Area 7	Area 8	sub total	Sewage Treatment	Sludge Treatment	Sewerage Service
	Service Analysis - Waste Water Direct Co	sts														
E2.0	-	-		ı	NW	NE	SE	SW								
E2.1	Employment costs	T22, L1	£m	I/C	2.186	2.895	2.37	3.357					10.808	9.139	2.514	22.461 A2
E2.2	Power Hired and contracted services	T22, L2	£m £m	I/C I/C	0.715	1.07	0.484	1.919					4.188	5.638 1.924	0.543	10.36887625 A2 9.529736639 A2
E2.3 E2.4	Not in use	T22, L4	£III	1/C	0.628	1.076	0.621	2.048					4.373	1.924	3.233	9.529736639 AZ
E2.5	Materials and consumables	T22, L6	£m	I/C	0.203	0.184	0.062	0.248					0.697	1.610	0.369	2.675922484 A2
E2.6	Service charges SEPA	T22, L7	£m	I/C	0.153	0.192	0.153	0.524					1.022	5.623	0.002	6.646917675 A2
E2.7 E2.8	Not in use Other direct costs	T22, L8	£m	I/C	0.08	0.238	0.278	0.531					1.127	0.702	0.03	1.859077016 A2
LZ.0	Other direct costs	122, L0	LIII	1/0	0.00	0.230	0.276	0.551					1.127	0.702	0.03	1.833077010 AZ
E2.9	Total direct costs	T22, L11	£m	С	3.965	5.655	3.968	8.627	0	0	0	0	22.215	24.63553006	6.691	53.54153006 A2
	General and support employment costs	-	£m	I/C	0.382	0.793	0.411	0.801					2.387	1.697	0.391	4.475129203 A2
-2.11	General and support other costs	-	£m	I/C	1.308	1.813	1.206	1.919					6.246	3.682	1.616	11.54401039 A2
2.12	Functional expenditure	T22, L13	£m	С	5.655	8.261	5.585	11.347	0	0	0	0	30.848	30.01466966	8.698	69.56066966 A3
	Operating Expenditure															
	Customer services	T22, L14	£m	- 1												12.767 A2
	Scientific services Other business activities	T22, L15 T22, L16	£m	1												2.283 A2 2.906 A2
	Total business activities	T22, L16	£m	C												17.956 A2
	Local authority rates	T22, L18	£m													9.4 A2
	Doubtful debts	T22, L19	£m	İ												15.042 A2
2.19	Exceptional items - start-up costs	-	£m	I												0 N
	Exceptional items - reorganisation costs	-	£m	- 1												0.798 A2
	Exceptional items - severance costs	-	£m	1												1.402 A2 0 N
	Exceptional items - other costs (specify) Total Exceptional items	- T22,L20	£m	C												2.2 A2
	Total opex less third party services	T22,L21	£m	С												114.1586697 A2
	Third party services - opex	T22,L22	£m	Ī												5.952 A3
2.26	Total operating expenditure	T22,L23	£m	С												120.1106697 A2
	Reactive and Planned Maintenance (inclu	ided in Op	ex)													
	Reactive and planned maintenance infrastructure	T22, L24	£m	I/C	1.393	2.463	2.218	4.616	0	0	0		10.69	0	0	10.69 D3
2.28	Reactive and planned maintenance non-infrastructure	T22, L25	£m	I/C	0.85	0.568	0.656	0.514	0	0	0	0	2.588	5.916	0.468	8.972 D3
	Capital Maintenance		_									-				
2.29 2.30	Infrastructure depreciation charge Non-infrastructure depreciation charge	T22, L26 T22,L28	£m	I/C I/C								-	30.644 24.798	0 46.869	0 1.584	30.644 A2 73.251 A3
	Amortisation of deferred credits	T22, L29	£m	I/C								L	24.790	40.809	1.564	-0.118 A2
	Amortisation of intangible assets	T22, L30		1												0 N
E2.33	Business activities depreciation charge	T22, L31	£m	1												2.485 A3
2.34	Capital maintenance less third party services	T22,L32	£m	С												106.262 A2
2.35	Third party services - depreciation	T22,L32	£m	I												0 A2
2.36	Total capital maintenance	T22,L34	£m	С												106.262 A2
	Total Operating Costs															
2.37	Not In Use		П													
	Not In Use															
E2.39	Total operating costs	T22,L35	£m	С												226.3726697 A2
epare	by: Laura Wilson	Date: 20/07	7/06													
ecker	by: Brian Strathie	Date: 20/07	7/06	I												
thoris	ed by: Geoff Aitkenhead	Date: 20/07	7/06													

Edition 3

Table 2b of 11



Benchmarking A1

A2 A3 A4 AX B2 B3 B4 BX C2 C3 C4 C5 CX M N D3

D4 D5 D6 DX

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

999
Report Year
2005-06

Please refer to commentary Please refer to commentary

Please refer to commentary Please refer to commentary Please refer to commentary A2 A3 A4 AX B2 B3 B4 BX C2 C3 C4 C5 CX M N D3 D4 D5 D6 DX

Necessary Y/N

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Service Analysis - Waste Water Direct Costs												
E2.0	Name	-		ı								
E2.1	Employment costs	T22, L1	£m	I/C								
E2.2	Power	T22, L2	£m	I/C								
E2.3	Hired and contracted services	T22, L4	£m	I/C								
E2.4	Not in use											
E2.5	Materials and consumables	T22, L6	£m	I/C								
E2.6	Service charges SEPA	T22, L7	£m	I/C								
E2.7	Not in use											
E2.8	Other direct costs	T22, L8	£m	I/C								
E2.9	Total direct costs	T22, L11	£m	С								
E2.10	General and support employment costs	-	£m	I/C								

E2.12	Functional expenditure	T22, L13	£m	С

i diletional experiatare	122, 210	2111	١
Operating Expenditure			
Customer services	T22, L14	£m	!
Scientific services	T22, L15	£m	!
Other business activities	T22, L16	£m	
Total business activities	T22, L17	£m	С
Local authority rates	T22, L18	£m	ı
Doubtful debts	T22, L19	£m	- 1
	Operating Expenditure Customer services Scientific services Other business activities Total business activities Local authority rates	Operating Expenditure           Customer services         T22, L14           Scientific services         T22, L15           Other business activities         T22, L16           Total business activities         T22, L17           Local authority rates         T22, L18	Operating Expenditure           Customer services         T22, L14         £m           Scientific services         T22, L15         £m           Other business activities         T22, L16         £m           Total business activities         T22, L17         £m           Local authority rates         T22, L18         £m

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E2.19	Exceptional items - start-up costs	-	£m	
E2.20	Exceptional items - reorganisation costs	-	£m	
E2.21	Exceptional items - severance costs	-	£m	-
	Exceptional items - other costs (specify)		£m	
E2.23	Total Exceptional items	T22,L20	£m	С
E2.24	Total opex less third party services	T22,L21	£m	С
E2.25	Third party services - opex	T22,L22	£m	-

E2.26 Total operating expenditure	T22,L23	£m	

	Tieudite and Flamed Mamtenande (mora	aca opc	,,,	
E2.27	Reactive and planned maintenance infrastructure	T22, L24	£m	I/C
E2.28	Reactive and planned maintenance non-infrastructure	T22, L25	£m	I/C
	Capital Maintenance			
E2.29	Infrastructure depreciation charge	T22, L26	£m	I/C
E3 30	Non infractructure depreciation charge	T22 L20	Cm.	1/0

EE.EO IIII dottato doproblation briargo		,	20111	., 0
E2.30 Non-infrastructure depreciation charge		T22,L28	£m	I/C
E2.31 Amortisation of deferred credits		T22, L29	£m	- 1
E2.32	Amortisation of intangible assets	T22, L30	£m	-
E2.33	Business activities depreciation charge	T22, L31	£m	_
	Capital maintenance less third party services	T22,L32	£m	С
F2 35	Third party services - depreciation	T22   33	Сm	

E2.36	Total capital maintenance	T22,L34	£m	С
	Total Operating Costs			

	Total Operating Costs			
E2.37	Not In Use			
E2.38	Not In Use			
E0.00	Tatal an austin u as ata	T00 L05	0	

Service Analysis - Waste Water Direct Costs				
E2.0	Name	-		Ţ
E2.1	Employment costs	T22, L1	£m	I/C

E2.0	Name	-		1
E2.1	Employment costs	T22, L1	£m	I/C
E2.2	Power	T22, L2	£m	I/C
E2.3	Hired and contracted services	T22, L4	£m	I/C
E2.4	Not in use			
E2.5	Materials and consumables	T22, L6	£m	I/C
E2.6	Service charges SEPA	T22, L7	£m	I/C
E2.7	Not in use			
E2.8	Other direct costs	T22, L8	£m	I/C

E2.11	General and support other costs	-	£m	I/C

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

Prepared by: Laura WilsonDate:	16/06/06
Checked by: Brian StrathieDate:	16/06/06
Authorised by: Douglas Millican	16/06/06

Edition 3

Date: April 2006 Version 9.0 Table 2b of 11

Authorised by: Douglas Millican...

### ANNUAL RETURN INFORMATION REQUIREMENT



				Report Year +					1 Forecast 200				+ 2 Budget 200	
Line Ref.	Ofwat I	Inits Field Type	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
			All Areas Total	reatment	Treatment	Total CG	All Areas Total	Treatment	Treatment	Total CG	All Areas Total	Treatment	reatment	Total
Service Analysis - Waste Water Direct Costs	N	ame												
E2.0 Not in use	T00 L1	£m I/C	10.432	8.822	2.426	21.68 B3	10.432	8.822	2.426	21.68 B3	10.641	0.000	0.475	00.115 P.
E2.1 Employment costs E2.2 Power		£m I/C £m I/C	4.042	5.442	0.524	10.008 B3	4.042	5.442	0.524	10.008 B3	4.123	8.999 5.551	2.475 0.534	22.115 B3 10.208 B3
E2.3 Hired and contracted services		£m I/C	4.222	1.857	3.121	9.2 B3	4.222	1.857	3.121	9.2 B3	4.306	1.894	3.183	9.383 B3
E2.4 Not in use	T00.10	0 1/0	0.070	4.554	0.050	0.500.00	0.070	4.554	0.050	0.500.00	0.007	4.505	0.000	0.005
E2.5 Materials and consumables E2.6 Service charges SEPA		£m I/C £m I/C	0.673 0.986	1.554 5.427	0.356 0.002	2.583 B3 6.415 B3	0.673 0.986	1.554 5.427	0.356 0.002	2.583 B3 6.415 B3	0.687 1.006	1.585 5.536	0.363 0.002	2.635 B3 6.544 B3
E2.7 Not in use	122, 17	2111 1/0	0.360	3.427	0.002	0.410 00	0.500	5.427	0.002	0.413 03	1.000	3.330	0.002	0.044 BC
E2.8 Other direct costs	T22, L8	£m I/C	1.088	0.678	0.029	1.795 B3	1.088	0.678	0.029	1.795 B3	1.11	0.691	0.03	1.831 B3
E2.9 Total direct costs	T22, L11	£m C	21.443	23.78	6.458	51.681 B3	21.443	23.78	6.458	51.681 B3	21.873	24.256	6.587	52.716 B3
E2.10 General and support employment costs	-	£m I/C	2.304	1.638	0.377	4.319 B3	2.304	1.638	0.377	4.319 B3	2.35	1.671	0.385	4.406 B3
E2.11 General and support other costs	-	£m I/C	0.427	0.252	0.112	0.791 B3	0.427	0.252	0.112	0.791 B3	0.435	0.257	0.114	0.806 B3
E2.12 Functional expenditure	T22, L13	£m C	24.174	25.67	6.947	56.791 B3	24.174	25.67	6.947	56.791 B3	24.658	26.184	7.086	57.928 B3
Operating Expenditure														
E2.13 Customer services	T22, L14	£m I				12.297 B3				12.297 B3				12.544 B3
E2.14 Scientific services	T22, L15					2.204 B3				2.204 B3				2.248 B3
E2.15 Other business activities E2.16 Total business activities	T22, L16 T22, L17	£m I				1.673 B3 16.174 B3				1.673 B3 16.174 B3				1.707 B3 16.499 B3
E2.17   Local authority rates	T22, L18					9.074 B3				9.074 B3				9,256 B3
E2.17 Local authority rates E2.18 Doubtful debts		£m I				15.339 B3				15.339 B3				9.256 B3 15.647 B3
E2.19 Exceptional items - start-up costs E2.20 Exceptional items - reorganisation costs		£m   I £m   I				0 N 0 N				0 N 0 N				0 N 0 N
E2.21 Exceptional items - severance costs		£m I				0 N				0 N				0 N
E2.22 Exceptional items - other costs (specify)		£m I				0 N				0 N				0 N
E2.23 Total Exceptional items		£m C				0 N				0 N				0 N
E2.24 Total opex less third party services E2.25 Third party services - opex	T22,L21 T22,L22	£m C £m I				97.378 B3 22.328 B3				97.378 B3 22.328 B3				99.33 B3 22.777 B3
1 , ,										- L				•
E2.26 Total operating expenditure	T22,L23	£m C				119.706 B3				119.706 B3				122.107 B3
Reactive and Planned Maintenance (included in														
E2.27 Reactive and planned maintenance infrastructure E2.28 Reactive and planned maintenance non-infrastructure	T22, L24 T22, L25		12.369 2.995	0 6.845	0 0.542	12.369 D4 10.382 D4	12.369 2.995	0 6.845	0 0.542	12.369 D4 10.382 D4	12.618 3.055	0 6.982	0.552	12.618 D4 10.589 D4
L2.20   neactive and planned maintenance non-initiastructure	122, L23	2111 1/0	2.993	0.043	0.542	10.362 D4	2.993	0.043	0.542	10.302 D4	3.055	0.302	0.552	10.369 D
Capital Maintenance														
E2.29 Infrastructure depreciation charge E2.30 Non-infrastructure depreciation charge		£m I/C £m I/C	24.488 22.436	0 42.405	0 1.433	24.488 B3 66.274 B3	24.488 22.436	0 42.405	0 1.433	24.488 B3 66.274 B3	25.073 23.012	0 43.492	0 1.469	25.073 B3 67.973 B3
E2.31 Amortisation of deferred credits		£m I	22.430	42.403	1.100	-0.105 B3	22.430	72.703	1.400	-0.105 B3	20.012	70.732	1.409	-0.105 B3
E2.32 Amortisation of intangible assets	T00 L04	£m I				0 N				0 N				0 N
E2.33 Business activities depreciation charge		£m I				0.183 B3				0.183 B3				0.186 B3
E2.34 Capital maintenance less third party services	T22,L32					90.84 B3 0 B3				90.84 B3 0 B3				93.127 B3 0 B3
E2.35 Third party services - depreciation	T22,L33	AIII I				0   53				UBS				UBS
E2.36 Total capital maintenance	T22,L34	£m C				90.84 B3				90.84 B3				93.127 B3
Total Operating Costs														
E2.37 Not In Use														
E2.38 Not In Use														
E2.39 Total operating costs	T22,L35	£m C				210.546 B3				210.546 B3				215.234 B3
	<u> </u>													
	_													

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

Report Year + 1 **Budget 2006-07** 

150 Report Year + 1 Forecast 2006-07

Report Year + 2 **Budget 2007-08** 

A2 A3 A4 AX B2 B3 B4 BX C2 C3 C4 C5 CX M

D3 D4 D5 D6

DX

D3 D4 D5 D6

DX

					Comment		Comment		Comment	
					Necessary Y/N	Comment	Necessary Y/N	Comment	Necessary Y/N	Comment
Line	Description	Ofwat	Units							
Ref.		Ref		Туре						
					- 1					
E2.0	Service Analysis - Waste Water Direct Costs  Not in use	1	Name	1						
E2.1	Employment costs	T22, L1	£m	I/C	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.2	Power	T22, L2	£m	I/C	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.3	Hired and contracted services	T22, L4	£m	I/C	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.4 E2.5	Not in use  Materials and consumables	T22, L6	£m	I/C	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.6	Service charges SEPA	T22, L0	£m	I/C	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.7	Not in use	,				,		, , , , , , , , , , , , , , , , , , , ,		,
E2.8	Other direct costs	T22, L8	£m	I/C	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.9	Total direct costs	T22, L11	£m	С	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.10	General and support employment costs	-	£m	I/C	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.11	General and support other costs	-	£m	I/C	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.12	Functional expenditure	T22, L13	£m	С	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
	Operating Expenditure				1					
E2.13	Customer services	T22, L14	£m	I	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
	Scientific services	T22, L15	£m	- 1	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.15	Other business activities	T22, L16	£m	I	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.16	Total business activities	T22, L17	£m	С	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.17	Local authority rates	T22, L18	£m	ı	<b>1</b> N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
	Doubtful debts	T22, L19	£m	ı	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
==	<b>Ie</b>				- 1					
E2.19	Exceptional items - start-up costs  Exceptional items - reorganisation costs	-	£m		N N	Please refer to commentary	N N	Please refer to commentary	N N	Please refer to commentary
E2.21	Exceptional items - severance costs	-	£m	<del>i</del>	N	Please refer to commentary Please refer to commentary	N	Please refer to commentary Please refer to commentary	N	Please refer to commentary Please refer to commentary
E2.22	Exceptional items - other costs (specify)	-	£m	Ì	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.23	Total Exceptional items	T22,L20	£m	С	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.24	Total opex less third party services	T22,L21	£m	С	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.25	Third party services - opex	T22,L22	£m	I	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.26	Total operating expenditure	T22,L23	£m	С	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
	Reactive and Planned Maintenance (included in	Opex)			1					
	Reactive and planned maintenance infrastructure	T22, L24	£m	I/C	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.28	Reactive and planned maintenance non-infrastructure	T22, L25	£m	I/C	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
	Capital Maintenance									
	Infrastructure depreciation charge	T22, L26	£m	I/C	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.30	Non-infrastructure depreciation charge  Amortisation of deferred credits	T22,L28 T22, L29	£m £m	I/C	N N	Please refer to commentary Please refer to commentary	N N	Please refer to commentary Please refer to commentary	N N	Please refer to commentary Please refer to commentary
E2.32	Amortisation of deferred credits  Amortisation of intangible assets	T22, L30	£m	<del>-                                    </del>	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
	Business activities depreciation charge	T22, L31	£m	i	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.34	Capital maintenance less third party services	T22,L32	£m	С	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
	Third party services - depreciation	T22,L33	£m	ı	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
E2.36	Total capital maintenance	T22,L34	£m	С	N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
	Total Operating Costs				1					
E2.37	Not In Use				1					
E2.38	Not In Use				]					
E2.39	Total operating costs	T22,L35	£m	С	1 N	Please refer to commentary	N	Please refer to commentary	N	Please refer to commentary
		,_50			4		••	,	••	
Drong	d by: Laura Wilson	Date: 16/00	2/06		1					
repair	u by. Edura **113011	Date. 10/00	<i>J</i> , 00							

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Authorised by: Douglas Millican.

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Benchmarking A2

A2 A3 A4 AX

B2 B3 B4 BX

C2 C3 C4 C5 CX

D3 D4 D5 D6

DX

#### ANNUAL RETURN INFORMATION REQUIREMENT



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

			10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250 199
Line Description Ref.	Ofwat Ref	Units Field Type	Highland	Highland	Tay								AVSE	AVSE	AVSE	AVSE	AVSE	Levenmouth	Dalmuir	Daldowie	MSI	MSI	MSI	CG	CG	CG	Total CG
		. , , ,	1			00	00	100	00	00	00	00	00	00	100	00	-		00	00	00	00	00	00		00	00
Project Data E3.0 Name			Ft William	Inverness	Hatton	Nigg F	ersley Peter	head Fraserb	ourgh Los 0 A1		uckie E		Seafield					Levenmouth			Meadowhead	Stevenston	Inverclyde				
E3.0a North West E3.0b North East E3.0c South East		1/0 I 1/0 I 1/0 I	1 A1 0 A1 0 A1	1 A1 0 A1 0 A1	0 A1 1 A1 0 A1 0 A1	1 A1 0 A1	0 A1 1 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 A1 0 A1	0 A1 1 A1 0 A1	0 A1 0 A1 1 A1	0 A1 0 A1 1 A1	0 A1 0 A1 1 A1	0 A1 0 A1 1 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	0 A1 0 A1 0 A1 1 A1	0 A1 0 A1 0 A1				
E3.1 Annual average resident connected population		1/0 I 000 I/C	0 A1 8.4 B3	0 A1 55.1 B3	186.8 B3	0 A1 196.3 B3	0 A1 18.9 B3	0 A1 22.9 B3	0 A1 18.8 B3	0 A1 33.2 B3	14.0 B3	0 A1 10.1 B3	0 A1 547.3 B3	0 A1 20.5 B3	0 A1 69.0 B3	0 A1 13.8 B3	0 A1 11.3 B3	0 A1 116.1 B3	1 A1 410.5 B3	1 A1 0 N	1 A1 192.7 B3	70.3 B3	1 A1 78.8 B3				2094.912 B3
E3.2 Annual average non-resident connected population     E3.3 Trade effluent load received by works     E3.4 Tanker load received by works		000 I/C kg/COD/day I/C kg/COD/day I/C	1.1 B3 437 B4 1 B4	2.9 B3 1,887 B4 3 B4	3.2 B3 4,870 B4 0 B4	3.5 B3 5,100 B4 0 B4	0.6 B3 829 B4 0 B4		0.3 B3 3,207 B4 0 B4	1.0 B3 392 B4 0 B4	0.9 B3 1,450 B4 0 B4	0.6 B3 267 B4 0 B4	12.0 B3 20,393 B4 4,981 B4	0.2 B3 1,753 B4 0 B4	0.4 B3 3,865 B4 0 B4	0.3 B3 543 B4 0 B4	0.1 B3 71 B4 0 B4	1.9 B3 24,798 B4 75 B4	5.1 B3 10,797 B4 0 B4	0 N 0 N 0 N	3.8 B3 25,733 B4 0 B4	0.7 B3 7,998 B4 0 B4	0.6 B3 327 B4 0 B4				39.67943 B3 118694.2 B4 5059.459 B4
E3.5 Population equivalent of total load received E3.6 Project Status		000 I/C	15.8 B3		268.4 B3	278.8 B3	29.8 B3		50.5 B3 A1 S10	41.9 B3 O A1 S	29.4 B3 10 A1 S	14.3 B3	878.5 B3	52.7 B3 S10 A1 S		19.0 B3	12.6 B3 10 A1	308.5 B3	610.5 B3	0 N 9 A1 S	439.9 B3 110 A1	101.1 B3	94.2 B3				3489.133 B3
Scope of Works		100		1 4 4	1 4 1 4 1	104			4104	404	4 84		404	4104			ola.	4104	0 44	0 14	olas I	0 04	404				
E3.7 Sewerage E3.8 Sewage Treatment E3.9 Sludge Treatment		1/0 I 1/0 I 1/0 I 1/0 I	1 A1 1 A1 0 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 A1 0 A1 0 A1	0 A1 1 A1 0 A1 0 A1	1 A1 1 A1 0 A1 1 A1	1 A1 1 A1 1 A1 1 A1	1 A1 1 A1 0 A1 1 A1	1 A1 1 A1 0 A1 1 A1	1 A1 1 A1 1 A1 0 A1	1 A1 1 A1 1 A1	0 A1 1 A1 0 A1 0 A1	0 A1 1 A1 0 A1 0 A1	0 A1 1 A1 0 A1	1 A1 1 A1 1 A1 1 A1	0 A1 1 A1 0 A1 0 A1	0 A1 0 A1 1 A1 0 A1	0 A1 1 A1 1 A1 0 A1	0 A1 1 A1 0 A1 0 A1	1 A1 1 A1 0 A1 0 A1				
E3.9 Sludge Treatment E3.10 Terminal Pumping Station E3.11 Other (state details)		1/0 I 1/0 I	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	1 A1 0 A1	1 A1 0 A1	1 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 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 0 A1				
E3.12   Not in Use			<b> </b>																								
E3.12 Not in Use E3.13 Not in Use E3.14 Not in Use																											
E3.15 Not In Use E3.16 Not In Use																											
Sewage Treatment - Effluent Consent Stand E3.17 Suspended solids consent E3.18 BOD consent	dard	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 10 A1	0 N	0 N	35 A1	0 N	0 N	0 N	0 N				
F3.19 COD consent		mg/l I mg/l I mg/l I	35 A1 25 A1 0 N	25 A1 0 N	0 N 0 N 50 A1 0 N 100 A1	0 N 0 N 0 N	25 A1 0 N 35 A1	0 N 0 N 0 N	0 N 0 N 0 N	25 A1 125 A1	0 N 25 A1 125 A1 0 N	0 N 0 N 0 N	0 N 0 N 0 N	0 N 15 A1 0 N 5 A1	15 A1 0 N 2 A1	10 A1 0 N 2 A1	0 N 10 A1 0 N 1 A1	0 N 25 A1 0 N 0 N 0 N 100 A1	25 A1 0 N	0 N 0 N 0 N	0 N 0 N 50 A1	0 N 0 N 50 A1 0 N 100 A1	0 N 0 N 0 N				
E3.20 Ammonia consent E3.21 Phosphate consent E3.22 Compliance with effluent consent standard		mg/l I	0 N 100 A1	0 N 0 N 100 A1	0 N 100 A1	0 N 0 N	2 A1 100 A1	0 N 0 N	0 N 0 N	0 N 94.737 A1	0 N 100 A1	0 N 0 N	0 N 100 A1	0 N 93.333 A1	0 N 93.75 A1	0 N 100 A1	0 N 95.833 A1	0 N 100 A1	0 N 84 A1	0 N 0 N	0 N 100 A1	0 N 100 A1	0 N 0 N				
Sewage Treatment - Flow E3.23   Average daily flow in dry weather		Ml/d I/C	4 B2	22 82	91 B2	eglB3	12 B2	10 82	7 R2	11 B2	6 B2	4 B3	241   B2	11 R2	20/82	6 82	41B2 T	50 R2	218 82	oln I	94182	46lB2	40 B2				972 P2
E3.24 Ratio of daily maximum to minimum flow		Ml/d I/C nr I	2.3 B3	22 B3 1.9 B3	81 B2 2 B3	69 B3 2.2 B3	3 B3	1.8 B3	1.9 B3	2.6 B3	6 B3 1.9 B3	2.9 B3	241 B3 1.6 B3	0 M	0 M	0 M	4 B3 0 M	1.5 B3	1.8 B3	0 N	94 B2 1.4 B3	46 B2 1.5 B3	1.4 B3				973 B2
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 E3.27 Secondary biological E3.28 Tertiary A1		1/0 I 1/0 I 1/0 I	1 A1 0 A1 0 A1	1 A1 0 A1 0 A1	1 A1 0 A1	1 A1 0 A1 0 A1	1 A1 0 A1 0 A1	1 A1 0 A1 0 A1	1 A1 0 A1 0 A1	1 A1 0 A1 0 A1	1 A1 0 A1	1 A1 0 A1 0 A1	1 A1 0 A1 0 A1	1 A1 0 A1	1 A1 0 A1 1 A1	0 A1 1 A1 0 A1	1 A1 0 A1 1 A1	1 A1 0 A1 0 A1	1 A1 0 A1 0 A1	0 N 0 N 0 N	1 A1 0 A1 0 A1	1 A1 0 A1 0 A1	1 A1 0 A1 0 A1				
E3.29 Tertiary A2 E3.30 Tertiary B1		1/0 I 1/0 I 1/0 I	0 A1 0 A1 0 A1	1 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	1 A1 0 A1	0 A1 0 A1	1 A1 0 A1 0 A1 0 A1 0 A1 0 A1	1 A1 0 A1 0 A1	1 A1 0 A1	1 A1 0 A1 0 A1 1 A1 0 A1 0 A1	1 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 N 0 N	1 A1 0 A1	1 A1 0 A1 0 A1 0 A1 0 A1 0 A1	0 A1 0 A1 0 A1				
E3.31 Tertiary B2  Miscellaneous Data		1/0 1	T OJAI	UAI	UAI	UAI	UAI	UAI	UAI	UAI	UAI	UAI	UAI	UAI	UAI	IAI	UAI	UAI	UAI	UN	UAI	UAI	UAI				
E3.32 Sea outfalls at works E3.33 Terminal Pumping costs		1/0 I 1/0 I	1 A1 1 A1 0 A1	1 A1 1 A1 0 A1	1 A1 1 A1 0 A1	1 A1 0 A1 0 A1	0 A1 0 A1	1 A1 0 A1	1 A1 1 A1	1 A1 1 A1	1 A1 1 A1	1 A1 1 A1	1 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 1 A1	0 A1 0 A1 0 A1	0 A1 0 A1 0 A1	1 A1 0 A1	1 A1 0 A1 0 A1	1 A1 0 A1				
E3.34 Own sludge E3.35 Not In Use E3.36 Sludge centre		1/0 I	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 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 1 A1	0 A1	0 A1 0 A1	0 A1 0 A1				
E3.37 Not In Use																											
E3.38 Not In Use E3.39 Not In Use																											
E3.40 Not in Use E3.41 Not in Use																											
TO 40 New July			Į																								
E3.42 Not in Use E3.43 Not in Use E3.44 Not in Use E3.45 Not in Use																											
E3.45 Not in Use E3.46 Not in Use																											
Sewerage Data E3.47 Total length of sewer		km I	2.9 B3		34.5 B3	15 B3	0 N	0 N	0.7 B3	32.4lB3	24.3 B3	14.2 B3	28 B3	2.55 B3	oln I	oln I	OlN	4.3lB3	oln I	0lN	oln I	OIN	0.9lB3				
E3.48 Length of critical sewer E3.49 Number of pumping stations		km I nr I	2.9 B3 5 A1	8.6 B3 4 A1	16 A1	15 B3 6 A1	0 N 0 N	0 N 0 N 0 N 1	0.7 B3 1 A1	32.4 B3 32.4 B3 8 A1	24.3 B3 12 A1	14.2 B3 10 A1	28 B3 2 A1	2.55 B3 1 A1 4579 B4	0 N 0 N	0 N 0 N	0 N 0 N 0 N	4.3 B3 5 A1	0 N 0 N 0 N	0 N 0 N	0 N 0 N	0 N 0 N 0 N	0.9 B3 0 N				
E3.50 Capacity of pumping stations (m³/d) E3.51 Capacity of pumping stations (kw) E3.52 Number of combined pumping stations		m <sup>3</sup> /day I kw I nr I		981 B3	8888 B3	5//826 B3	0 N 0 N 0 N		6848 B3 108 B3 1 A1	280583 B3 1017 B3 7 A1	51113 B3 646 B3 11 A1	203472 B3 798 B3 9 A1	404952 B3 279 B3 2 A1	30 B4 1 A1	0 N 0 N 0 N	0 N 0 N 0 N	0 N 0 N	470100 B3 865 B3 5 A1	0 N 0 N 0 N	0 N 0 N 0 N							
E3.53 Capacity of combined pumping stations (m³/d) E3.54 Number of stormwater pumping stations		m³/day I nr I	129081 B3 0 N	99878 B3 1 A1	367286 B3 6 A1	33506 B3 1 A1	0 N 0 N	0 N 1	6848 B3 0 N	138023 B3 1 A1	38067 B3 1 A1	173232 B3 1 A1	404952 B3 0 N	4579 B4 0 N 0 N 1 A1	0 N 0 N	0 N 0 N	0 N 0 N	470100 B3 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				
E3.55 Capacity of stormwater pumping stations (m³/d) E3.56 Number of combined sewer overflows E3.57 Number of combined sewer overflows (screened)		m³/day   nr   nr	4 A1	245376 B3 2 A1 2 A1	9 A1	5 A1	0 N 0 N 0 N	0 N 0 N 0 N	0 N 1 A1 1 A1	142560 B3 4 A1 4 A1	13046 B3 10 A1 10 A1	30240 B3 8 A1 8 A1	0 N 10 A1 10 A1	0 N 1 A1 1 A1	0 N 0 N 0 N	0 N 0 N 0 N	0 N 0 N 0 N 0 N	0 N 4 A1 4 A1	0 N 0 N 0 N	0 N 0 N 0 N							
Sludge Treatment and Disposal Data			]																								
E3.58 Farmland Untreated E3.59 Farmland Conventional E3.60 Farmland Advanced		ttds I/C ttds I/C ttds I/C	0 N 0 N 0 N	0 N	2.308 B3	0 N 0 N 14.78 B3	0 N 0 N 0 N	0 N 0 N 0 N	0 N 0 N 0 N	0 N 0 N 1.008 B3	0 N 0 N 0 N	0 N 0 N 0 N	0 N 0 N 0 N	0 N 2.985 B3 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 1.635 B3	0 N 0 N 0 N	0 N 0 N 0 N				0 N 5.593 B3 19.731 B3
E3.61 Landfill E3.62 Incineration		ttds I/C	0 N 0 N	0 N 0 N	0.096 B3 1.823 B3 0 N	0 N 0 N 0 N	0 N 0 N 0 N	0 N 0 N	0 N 0 N	0.015 B3 1.676 B3 0 N	0 N 0 N 0 N	0 N 0 N	2.915 B3 0 N	0 N 0 N 0 N	0 N 0 N	0 N 0 N	0 N 0 N 0 N	2.601 B3 0 N 0 N	0 N 0 N	0.974 B3 47.667 B3	7.003 B3 0 N 0 N	0 N 0 N 0 N	0 N 0 N				13.604 B3 51.166 B3
E3.63 Composted E3.64 Land Reclamation E3.65 Other		ttds I/C ttds I/C ttds I/C	0 N 0 N 0 N	0 N 0 N	0 N 0.586 B3 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 0.081 B3 0 N	0 N 0 N 0 N	0 N 0 N 0 N	0 N 15.488 B3 0 N	0 N 0.962 B3 0 N	0 N 0 N 0 N	0 N 0 N 0 N	0 N 0 N 0 N	0 N 4.154 B3 0 N	0 N 0 N 0 N	0 N 0 N 0 N	0 N 2.046 B3 0 N	0 N 0 N 0 N	0 N 0 N 0 N				0 N 23.317 B3 0 N
<u> </u>	-																										

Prepared by: Peter Haddow	Date:	18/09/06
Checked by: Brian Strathie	Date:	18/09/06
Authorized by: Develop Millions	Data	19/00/06

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ANNUAL RETURN INFORMATION REQUIREMENT



Date: April 2006 Version: 9.0

SECTION E: OPERATING COSTS AND EFFICIENCY Table E3: PPP Project Analysis																									
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ANNUAL RETURN INFORMATION REQUIREMENT



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

Line Description    Cfwat   Units   Field Ref   Type	3.386 D6 0 N N O N O N O N O N O N O N O N O N O
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Sewerage Costs   Sewe	3.386 D6 0 N
E3.1 Estimated direct operating cost	3.386 D6 0 N
E3a.1 Estimated direct operating cost	3.386 D6
E3a.2 Rates paid by the PPP contractor	0 N 0 048 A2
E3a.4 Total direct cost	0.048.42
E3a.4 Total direct cost	
	0 3 434 D6
E3a.5   Scottish Water general & support expenditure   £m   I/C   0   B4   0.003   B4   0.003   B4   0.003   B4   0.005   B4   0.003   B4   0.003   B4   0.005   B4   0.001	0.12 B4
E3a.6   Scottish Water SEPA charges   £m   UC   0  N   0	0 A2 0 3,554 D6
E3a.7 Total sewerage cost	0 3.554 D6
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Sewage Treatment Costs	
E3a.8 Estimated direct operating cost £m I/C 0.456 [D6 0.994 [D6 0.708 [D6 0.698 [D6 0.708 [D6 0.468 [D6 0.468 [D6 0.468 [D6 0.424 [D6 0.277 [D6 0.297 [D6 0.297 [D6 0.377 [D6 0.277 [D6 0.298 [D6 0.484 [D6 0	19.249 D6
F3 a Bates paid by the PPP contractor 5m I/C 0.044 R3 0.734 R3 0.735 R3 0.735 R3 0.056 R3 0.058 R3 0.0	3.476 B3
E3a 10 [SEPA charges paid by the PPP contractor	1.065 B3
E3a 17 Total direct cost	0 23.79 D6
	0.726 B4
E3a.13   Scottish Water SEPA charges   £m   I/C   0 N	0.748 A2
1.322106 $1.322106$	0 25.264 D6 0 M
E3a.15 Estimated terminal pumping cost £m I/C 0   M 0	0 M
Sludge Treatment and Disposal Costs	
E3a (Estimated direct operating cost	14.697 D6
	1.499 B3
E3a 18 SEPA changes paid by the PPP contractor	0.022 BX
E3a.19   Total direct cost   £m   C   0 N   0.706 D6   2.183 D6   1.152 D6   0 N   0 N   0 N   0 N   0 N   0.928 D6   0 N   0 N   0.928 D6   0 N	0 16.218 D6
	2.251 B4
E3a.21 Scottish Water SEPA charges £m I/C 0 N 0 N 0 N 0 N 0 N 0 N 0 N 0 N 0 N 0	0 N
E3a.22   Total sludge treatment & disposal cost	0 18.469 D6
Total Cost Analysis	
E3a23 Total direct cost	0 43.442 D6
E324 Total Scottish Water cost \$\chi_{2m}\$ C \$\chi_{2m}\$ C \$\chi_{2m}\$ C \$\chi_{2m}\$ 0.006 B3 \$\chi_{2m}\$ 0.142 B3 \$\chi_{2m}\$ 0.196 B3 \$\chi_{2m}\$ 0.006 B3 \$\chi_{2m}\$ 0.006 B3 \$\chi_{2m}\$ 0.006 B3 \$\chi_{2m}\$ 0.006 B3 \$\chi_{2m}\$ 0.006 B3 \$\chi_{2m}\$ 0.008 B3	0 3.845 B3
E3a 25 Total operating cost	0 47.287 D6
E3a 26 Annual charge 5 Annual charge 5 C 2913 A1 4 705 A1 18.914 A1 8.982 A1 2.935 A1 15.022 B3 2.57 B3 1.238 B3 0.512 B3 0.522 B3 0.522 B3 0.523 B	118.015 B3
E3a 27 Public sector capital equivalent value Em I 16.335 B3 52.737 B3 141.605 B3 78.076 B3 18.961 B3 15.679 B3 15.126 B3 15.679 B3 15.126 B3 15.679 B3 15.126 B3 15.679 B3 15.126 B3 15.679 B3 15.126 B3 15.126 B3 15.679 B3 15.126 B3 15.1	B3
Contract Information	
E3a.29 Contract period	A1
E3a 29 Contract end date ddimm/y I ########  A1 ########  A1   ########  A1	A1

Prepared by: Laura Wilson	Date: 20/07/06	
Checked by: Brian Strathie	Date: 20/07/06	
Authorized by: Gooff Altkenhead	Date: 20/07/06	

Edition 3

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#### ANNUAL RETURN INFORMATION REQUIREMENT



SECTION E : OPERATING COSTS A Table E3a: PPP Cost Analysis	AND EFFICIENCY																											
Line Description	Ofwat Units Field Type	Highland	20 Highland	30 Tay	40 Aberdeen	50 Aberdeen	Aberdeen	70 Aberdeen	Moray Coast	90 Moray Coast	Moray Coast	Moray Coast	AVSE	AVSE	AVSE	AVSE	Levenmouth	Dalmuir	Daldowie	MSI	200 MSI	MSI	220	230	240	250	Total	]
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Severage Costs Est Sciented devel operating cost Ebt Sciented devel operating cost Ebt Sciented devel operating cost Ebt Sciented Ebt Onlarge goal by the PPP contractor Ebt Sciented Ebt Onlarge goal by the PPP contractor Ebt Sciented Costs Ebt Sciented Water personal a support expenditure Ebt Sciented Water Sciented Sciented Ebt	0m   1C   0m   1C   0m   1C   0m   1C   0m   1C   0m   1C   0m   1C   0m   1C   0m   1C   0m   1C   0m   1C   0m   0m   0m   0m   0m   0m   0m   0	N actual cost N rates alloc N N confidence N total exper N sepa chaq N confidence	ted to TN rates allocate N grade a N confidence gr dhure is N total expendit es paid N sepa charges	ed to TN rates allow N rade a N confidenc ture is N total expe s paid N seps char	cated to N rates alloca N e grade N confidence nditure i N total expens ges poix N cost relates	ed to 'N no sewer, N no sewer, prade :N no sewer, fure it N no sewer, to trea N no sewer,	sence n N no sewer, t sence n N no sewer, t	ence nN rates allocat sence nN sence nN confidence ; sence nN sence nN sepa charge	ed to N rates allocated N rates allocated N confidence gra N total expenditu s paic N	to 1N rates allocated N de IN confidence gra re is N total expenditu N seps charges ;	to 1N rates allocate N ide aN confidence gr ne isN total expendit paid N seps charges	d to 1N rates allocated N costs relate to 1 ade :N confidence grac are isN total expenditur paidN sepa charges p	to "N rates allocated TresN costs relate to " de sN confidence gra- ne isN seps changes p	to IN no sewer, hence fins N no sewer, hence de IN no sewer, hence N no sewer, hence aid N no sewer, hence	nN no sewer, hence nN no sewer, hence nN no sewer, hence nN no sewer, hence nN no sewer, hence	nN no sewer, hence n nN no sewer, hence n nN no sewer, hence n nN no sewer, hence n nN no sewer, hence n	N rates allocated to N confidence grade N total expenditure N seps charges pa	"N no sewer, hence N no sewer, hence aN no sewer, hence iaN no sewer, hence dN no sewer, hence	nN Exclusively a si nN Exclusively a si nN Exclusively a si nN Exclusively a si nN Exclusively a si	adgN no sewer, henc adgN no sewer, henc adgN no sewer, henc adgN no sewer, henc adgN no sewer, henc	se nN no sewer, henc se nN no sewer, henc se nN no sewer, henc se nN no sewer, henc se nN no sewer, henc	e nN rates allocated to nN sepa fees paid to nN sepa fees paid to nN e nN e nN	by MNIA MNIA MNIA MNIA	MOLA MOLA MOLA MOLA MOLA MOLA MOLA	MOUR MOUR MOUR MOUR MOUR MOUR MOUR	enna enna enna enna enna enna enna	N rates allocated N confidence grac N total expenditur N	AS C Innon, cost JA N I
Servage Treatment Code  En I Servage Frautment Code  En I Servade d'ent personne  El 20 (19 per 19 p	2m   1C   2m   2m   1C   2m   2m   2m   2m   2m   2m   2m   2	N actual cost N N N confidence N total exper N sepa chan N confidence N cost is led	N N confidence grade a N confidence grade is N total expendit es paid N sepa charges grade a N confidence gr	N N Confidenc ture is N total expe s paid N sepa che rade i N confidenc	N N N confidence e grade N confidence notiture i N total expent types paix N e grade N confidence	N N confidence in total exper N sepa charped in confidence	N N STATE OF	N N State of the s	N N confidence gra space N confidence gra space N seps charges gra space N confidence gra	N N confidence grande iN confidence grande iN total expenditue and N sepa charges grande iN confidence grande iN confidence grande iN confidence grande in N con	N N confidence gr ide sN confidence gr iesN total expendit paid N seps charges ide sN confidence gr	N N sade sN confidence grac see isN total expenditure paidN sepa charges p ade sN confidence grac	N N de sN confidence gras e laN total expenditur asidN sepa charges p de sN confidence gras	N N confidence grade in N confidence grade is N total expenditure aid N seps. charges paid to IN confidence grade	N N confidence grade aN confidence grade aN total expenditure dN sepa charges pai sN confidence grade	N N Confidence grade in N confidence grade in N total expenditure in d N seps charges poid in Confidence grade	N N Confidence grade N Confidence grade N total expenditure N seps charges ps N Confidence grade	N seps fees paid by a N confidence grade isN total expenditure idN a N confidence grade	N Exclusively a sily in N Exclusively a sily in N Exclusively a sily is N Exclusively a sily N Exclusively a sily in N Exclusively a sily in N Exclusively a sily in N Exclusively a sily in N Exclusively a sily in N Exclusively a sily in N Exclusively a sily in N Exclusively a sily in N Exclusively a sily in N Exclusively a sily in N Exclusively a sily in N Exclusively a sily in N Exclusively a sily in N Exclusively a sily in N Exclusively a silver in N Exc	udgN seps fees paid udgN seps fees paid udgN confidence gra udgN total expenditur udgN confidence gra	N by N sepa fees paid de IN confidence gra re isN total expenditur N de IN confidence gra	N by IN seps fees paid to se sN confidence grad s isN total expenditur N se sN confidence grad	WNA by: eNA de: eNA enis eNA eNA de: eNA	申記は 申記は 申記は 申記は 申記は 申記は 申記は 申記は	MOUR, MOUR, MOUR, MOUR, MOUR, MOUR, MOUR, MOUR,	enna enna enna enna enna enna enna enna	N N N confidence grad N total expenditur N N confidence grad	C N C N C N C N C N C N C N C N C N C N
Studge Treatment and Disposal Costs  E3.11 Stationard developments cost  E3.11 State paid by the Pownshoote  E3.11 State paid by the Pownshoote  E3.12 State paid by the Powns	Sn   10   Sn   10   Sn   10   Sn   10   Sn   10   Sn   10   Sn   10   Sn   10	N all sludge I N all sludge I N all sludge I N all sludge I N all sludge I N all sludge I N all sludge I	eated a N eated a N eated a N confidence gr eated a N total expendit eated a N sepa charges	N N confidenc total expe s paid N sepa char	N N e grade N confidence notize i N total expens gas paic N cost relates	N all skudge N all skudge grade : N all skudge ture it N all skudge to tree N all skudge	reated a N all aludge to reated a N all aludge to	eated IN all sludge to eated IN all sludge to eated IN all sludge to eated IN all sludge to eated IN all sludge to	eated N sated N sated N sated N sated N total expenditu sated N cost relates to	N all sludge treat N all sludge treat de iN all sludge treat re isN all sludge treat neisN all sludge treat	ed sN all studge tres ed sN all studge tres ed sN all studge tres ed sN all studge tres ed sN all studge tres ed sN all studge tres	ted 1N ted 1N ted 1N conflidence grac ted 1N total expenditur ted 1N seps charges p	N N Confidence grade is N total expendium confidence grade is N total expendium confidence grade is N total expendium confidence grade is N total expendium confidence grade is N total expendium confidence grade is N total expendium confidence grade is N total expendium confidence grade is N total expendium confidence grade is N total expendium confidence grade is N total expension confidence grade grade grade grade grade grade grade grade grade grade grade grade grade grade grade gra	N all studge treated N all studge treated et i N all studge treated et i N all studge treated et i N all studge treated aid N all studge treated	aN all sludge treated aN all sludge treated aN all sludge treated aN all sludge treated aN all sludge treated aN all sludge treated	2N all studge treated 2N all studge treated 2N all studge treated 2N all studge treated 2N all studge treated 2N all studge treated	N Confidence grade N total expenditure N sepa charges pa	N all sludge treated N all sludge treated in N all sludge treated in N all sludge treated in N all sludge treated id N all sludge treated	t a N t a N t a N t a N t a N t a N t a N t a N t a t t t t t t t t t t t t t t t t t t	N seps fees paid le aN confidence gra isN total expenditur aid N	N all sludge treats by N all sludge treats de IN all sludge treats to is N all sludge treats to is N all sludge treats N all sludge treats	d aN all aludge treate d aN all aludge treate d aN all aludge treate d aN all aludge treate d aN all aludge treate d aN all aludge treate d aN all aludge treate	ed: #NA ed: #NA ed: #NA ed: #NA	参加は 参加は 参加は 参加は 参加は 参加は 参加は 参加は	MOUR MOUR MOUR MOUR MOUR MOUR MOUR	FNIA FNIA FNIA FNIA FNIA FNIA	N N confidence grad N total expenditur N seps charges p	t known, cost as per the financial model  de as per E3a.16 as this is the most significant element of the total cost e is allocated across all sites and cost categories
Total Cost Analysis Ella 23 Total direct cost Ella 24 Total Gentle Water cost Ella 25 Total Spenish Water cost Ella 25 Total operating cost Ella 26 Annual charge Ella 27 Public sector capital equivalent value	5m   C     5m   C     5m   C     5m   C     5m   5   C     5m   1     5   5   5   5   5   5   5   5	N adsel cost N N confidence N N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	eNA	ernia ernia ernia ernia ernia	MANUA MANUA MANUA MANUA MANUA	的证法 的证法 的证法 的证法 的证法	N	Exzown, coat as per the financial model de as per ESa 23 as this is the most significant element of the total cost
Contract Information £3a.28 Contract period £3a.29 Contract and date	years     dd/mm/yy	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 N	N N	N N	N N	N N	N N	N N	N N	N N	ena ena	etilA. etilA.	eNIA eNIA	enia enia	N N	

Peak demand and Pumping Head



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## SECTION E OPERATING COSTS AND EFFICIENCY

SECTION E . OPENA	HING COSTS AND EFF	CIENCI
Table E4: Water Expl	anatory Factors - Reso	urces and Treatment

					1	0	20	30	40	50	60	100	120	130	140		160	170	200
Line Descri	iption	Ofwat	Units	Field			Num	ber of	Own 9	ources				C	wn So	urce Out	puts		Total Source
Ref.		Ref		Type	Ar	rea						<b>Total Sources</b>							Outputs
						1 /	Area 2	Area	3 Area	4 Area	Area 6		Area 1	Area	2 Area	3 Area	4 Area 5	Area 6	
					-														
Source	e Types							nı	ımber			number		av	erage da	ily output	(MI/d)		MI/d
E4.0 Area Na	ame	-	-	1	NW	1	NE	SE	SW				NW	NE	SE	SW			
		- T12, L1	- nr, ml/d	I I/C	NW	49	NE 18	_	SW 85	71		173		NE 7 190			7		1652.478234
		- T12, L1 -	- nr, ml/d nr, ml/d		NW		NE 18	_	_	71 2			103.7		).5 33		_		1652.478234 39.22917121
E4.1 Impound E4.2 Lochs	ding reservoirs			I/C	NW	49	NE 18 (24	3	0	71 2		173	103.7	1 (	0.5 33	3.6 1024.	2		
E4.1 Impound E4.2 Lochs	ding reservoirs  nd burn abstractions	T12, L2	nr, ml/d	I/C I/C	NW	49 58	18	3	0	71 2 93 6		173 60	103.7	1 (	0.5 33 0.0 0 1.5 1	3.6 1024. 0.0 9.	2		39.22917121
E4.1 Impound E4.2 Lochs E4.3 River ar	ding reservoirs  nd burn abstractions	T12, L2	nr, ml/d nr, ml/d	I/C I/C I/C		49 58 102	18 ( 24	3 3 0 4 2 0 2	0 0 22	71 2 93 6	0 0	173 60	103.7 30.1 16.4 29.1	1 ( 4 204 1 16	0.5 33 0.0 0 1.5 1 6.6 2	3.6 1024. 0.0 9. 1.6 333.	2 2 2		39.22917121 565.6974503

E4.6	Raw water exports	-	nr, ml/d	I/C	0	0	0	0		0	0	0	0	0			0
	Raw water imports	-	nr, ml/d	I/C	0	0	0	0		0	0	0	0	0			0
											10	20	30	40	50	60	100
											Propo	rtional I	Breakdo	own of	Source	output	
													prod	uced		-	Proportion of
																	Own Source
											Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Output

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

																		Own Source	
												Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Output	
	-	nr	С									0.04	0.08	0.14	0.44	0.00	0.00	0.71	
	-	nr	С									0.01	0.00	0.00	0.00	0.00	0.00	0.02	
	-	nr	С									0.01	0.09	0.00	0.14	0.00	0.00	0.24	
	-	nr	С									0.01	0.01	0.01	0.00	0.00	0.00	0.03	
	-	nr	С									0.08	0.18	0.16	0.59	0.00	0.00	1.00	
				10	)	20	30	40	50	60	100							150	
					F	Peak R	atio & I	Pumpin	g Head		Average Peak								
				Are	ea						Ratio	120	1					Average	170
lead				1	1	Area 2	Area 3	Area 4	Area 5	Area 6		CG						Pumping Head	CG
	T12, L5	nr		1.0	059	1.059	1.073	1.059			1.029	C4							

		Water Treatment Works by ProcessType					1	Area 2	Area 3	Area 4	Area 5	Area 6	nr	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	MI/d
						_	Area						Works							Dist'n in
								Nun	nber of	Own W	orks		Total Nr of	Volu	me of D	Distribut	ion Inp	ut Prod	luced	Total vol
							10	20	30	40	50	60	100	120	130	140	150	160	170	200
						-	-													
Е	4.16	Not in use				1													l	
		Not in use																		
E	4.14	Average pumping head - resources and treatment	T12, L6	m	- 1	1	16.2	24.4	19.8	25.6									ļ	

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           42 12         7         5         66         81.8         193.2         142.5         424.6         842.1496			Nun	nber of	Own W	orks		Total Nr of	Volu	me of D	istribu	tion Inp	ut Prod	uced	Total volume
E4.17   Simple Disinfection         - nr, ml/d         l/C         50         13         18         5         86         18.3         13.6         28.1         301.3         361.2970           E4.18   W1         - nr, ml/d         l/C         67         0         5         5         77         13.5         0.0         51.6         15.9         81.07206           E4.19   W2         - nr, ml/d         l/C         42         12         7         5         66         81.8         193.2         142.5         424.6         842.1496           E4.20   W3         - nr, ml/d         l/C         40         13         14         37         104         65.7         20.48         149.9         628.3         1047.735		Area	1					Works							Dist'n input
E4.18     W1     -     nr, ml/d     l/C     67     0     5     5     77     13.5     0.0     51.6     15.9     81.07206       E4.19     W2     -     nr, ml/d     l/C     42     12     7     5     66     81.8     193.2     142.5     424.6     842.1496       E4.20     W3     -     nr, ml/d     l/C     40     13     14     37     104     65.7     204.8     148.9     628.3     1047.735	Water Treatment Works by ProcessType	1	Area 2	Area 3	Area 4	Area 5	Area 6	nr	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	MI/d
E4.19     W2     -     nr, ml/d     l/C     42     12     7     5     66     81.8     193.2     142.5     424.6     842.1496       E4.20     W3     -     nr, ml/d     l/C     40     13     14     37     104     65.7     204.8     148.9     628.3     1047.735	E4.17 Simple Disinfection - nr, ml/d I/C	50	0 13	18	5			86	18.3	13.6	28.1	301.3			361.2970623
E4.20 W3 nr, ml/d l/C 40 13 14 37 104 65.7 204.8 148.9 628.3 1047.735		6	7 0	5	5			77	13.5	0.0	51.6	15.9			81.07206205
	E4.19 W2 - nr, ml/d I/C	4.	2 12	7	5			66	81.8	193.2	142.5	424.6			842.1496567
E4.21 W4 - nr, ml/d l/C 0 0 0 0 0 0 0 0 0 0 0		40	0 13	14	37			104	65.7	204.8	148.9	628.3			1047.735399
	E4.21 W4 - nr, ml/d I/C	1	0 0	0	0			0	0	0	0	0			0
E4.22 Total numbers of works T12, L17 nr, ml/d C 199 38 44 52 0 0 333	E4.22 Total numbers of works T12, L17 nr, ml/d C	199	9 38	44	52	0	0	333							
E4.23   Total distribution input   T12, L16  nr, ml/d   C   179.3   411.65   371.07   1370.2   0   0   2332.25	E4.23 Total distribution input T12, L16 nr, ml/d C								179.3	411.65	371.07	1370.2	0	0	2332.25418

					10	20	30	40	50	60	100
					Prop	ortiona	al Break In	down c put	of Distril	oution	Tot. prop'n of
					Area ·	Area	2 Area 3	Area 4	Area 5	Area 6	D.I. Prop'n (0-1)
4.24	Simple Disinfection	-	nr	С	0.0	0.0	1 0.01	0.13	0.00	0.00	0.15
4.25	W1	-	nr	С	0.0	0.0	0.02	0.0	0.00	0.00	0.03
4.26	W2		nr	С	0.04	0.0	8 0.06	0.18	0.00	0.00	0.36
4.27	W3		nr	С	0.03	0.0	9 0.06	0.27	7 0.00	0.00	0.45
4.28			nr	С	0.00	0.0	0.00	0.00	0.00	0.00	0.00
4.29	Total	-	nr	С	0.08	0.1	0.16	0.59	0.00	0.00	1.00

					10	20	30	40	50	00	100	120	130	140	150	160	170	200
						Nun	nber of	Own W	orks		Total Nr of	Prop	ortional	Break	down o	f Distril	bution	Tot. prop'n of
					Area						Works							D.I.
	Water Treatment Works by Size Band				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)
E4.30	Size band <=1 Ml/d	-	nr	I/C	158	10	12	2 17			197	0.009	0.001	0.001	0.001			0.011861176
E4.31	Size band >1 - <=2.5 MI/d	-	nr	I/C	17	6	6	3 2			31	0.006	0.002	0.004	0.001			0.0133614
E4.32	Size band >2.5 - <=5 MI/d	-	nr	I/C	9	10	9	6			34	0.008	0.009	0.009	0.010			0.036234569
E4.33	Size band >5 - <=10 Ml/d	-	nr	I/C	7	1	5	6			19	0.011	0.001	0.012	0.014			0.037935272
E4.34	Size band >10 - <=25 Ml/d	-	nr	I/C	6	2	6	10			24	0.025	0.011	0.027	0.061			0.123279952
E4.35	Size band >25 - <=50 Ml/d	-	nr	I/C	2	5	4	1 2			13	0.018	0.052	0.052	0.027			0.149477727
E4.36	Size band >50 - <=100 MI/d	-	nr	I/C	(	4	1	4			Ş	0	0.100	0.020	0.098			0.21798611
E4.37	Size band >100 - <=175 MI/d	-	nr	I/C	(	0	1	3			4	1 0	0	0.034	0.141			0.175023972
E4.38	Size band >175 Ml/d	-	nr	I/C	(	0	C	) 2			2	0	0	0	0.235			0.234839822
E4.39	Total numbers of works	-	nr	С	199	38	44	52	C	0	333	3						
E4.40	Proportion of distribution input - total	-	nr	С							_	0.0769	0.1765	0.1591	0.5875	0	0	1

												i l
						10	20	30	40	50	60	100
							Treat	ed Wat	er Tran	sfers		Total
						Area						
	Bulk Imports and Exports					1	Area 2	Area 3	Area 4	Area 5	Area 6	
E4.41	Bulk Imports from other Agencies	-	MI/d	I/C	ſ	0	0	0	0			0
E4.42	Bulk Exports to other Agencies	-	Ml/d	I/C		0	0	0	0			0
E4.43	Internal Imports from other resource areas	-	Ml/d	I/C		0	18.50	48.11	0			66.61005808
= 1 11						4 70			01.00			00.01005000

E4.43	Internal Imports from other resource areas	-	MI/d	I/C	0	18.50	48.11	0			66.610058
E4.44	Internal Exports to other resource areas	-	MI/d	I/C	4.73	0	0	61.88			66.610058
E4.45	Net change in volume		MI/d	С	-4.727	18.501	48.11	-61.883	0	0	
E4.46	Distribution input within area	-	MI/d	С	174.57	430.15	419.18	1308.3	0	0	2332.243
										_	

10	20	30	40	50	60	100
	Ope	rating o	cost by	area		Total
Area						
1	Area 2	Area 3	Area 4	Area 5	Area 6	
2757	179.56	192.68	312.22			3441.408
1285.4	214.87	277.17	201.27			1978.743
1270.6	648.83	689.03	652.9			3261.339
1221	134.31	646.7	888.58			2890.59
1902.4	509.3	1632.2	2705			6748.882
8436.3	1686.9	3437.8	4760	0	0	18320.962
1581.2	2572.8	1919.4	949.93			7023.336
0	3400.5	451.12	2326.6			6178.199
0	0	797.34	2644			3441.324
0	0	0	3651.2			3651,161

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	С
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	С
E4.58	Total numbers of works	-	£000	С

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

Edition 2

Date: April 2006 Version: 9.0 Table 4 of 11



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

Line	Description	Ofwat	Units	Field
Ref.		Ref		Type

	Source Types			
E4.0	Area Name	=	-	- 1
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	С
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			
	Peak demand - peak to average ratio	T12, L5		П
	Average pumping head - resources and treatment	T12, L6	m	
	Not in use			
E4.16	Not in use			

E4.17	Simple Disinfection	-	nr, ml/d	1/0
E4.18	W1	-	nr, ml/d	1/0
E4.19	W2	-	nr, ml/d	1/0
E4.20	W3	-	nr, ml/d	1/0
E4.21	W4	-	nr, ml/d	1/0
E4.22	Total numbers of works	T12, L17	nr, ml/d	(

E4.:	4.23 Total distribution input			nr, ml/d	С	
		Issues with data				Problem ?

E4.12 should equal 1.0	N	10
E4.22 (Col 100) should equal E4.39 (Col 100)	N	10
E4.29 should equal 1.0	N	10
E4.40 should equal 1.0	N	20
E4.45 should equal 0	N	10

<sup>\*</sup> This reference refers to JR00 whereas all other lines refer to JR01.

Prepared by: Michael BreinganDate:	16/06/06
Checked by: Bill Nichols	16/06/06
Authorised by: Geoff AitkenheadDate:	16/06/06

Edition 2

220	1
Total Source Outputs	

Comment								
Necessary	Comment			General		hmarking A1	Benchmarking A2	
Y/N			A1	G	A1	G	A1	G
			A2	G	A2	N	A2	G
			A3	G	A3	N	A3	N
J	Consistent with di	istribution input cor	nfidence grade r A4	N	A4	N	A4	N
٧	Consistent with di	stribution input cor	nfidence grade r AX	G	AX	G	AX	G
٧	Consistent with di	istribution input cor	rfidence grade r B2	G	B2	N	B2	N
١	Consistent with di	istribution input cor	nfidence grade r B3	G	B3	N	B3	N
٧	Consistent with di	istribution input cor	nfidence grade r B4	N	B4	N	B4	N
V	We have no bulk	supply exports	BX	G	BX	N	BX	N
١	We have no bulk	supply imports	C2	N	C2	N	C2	N
			C3	N	C3	N	C3	N
			C4	N	C4	N	C4	N
			C5	N	C5	N	C5	N
	11	70	CX	N	CX	N	CX	N
			M	N	M	N	M	N
	Average Pu	mping Head	N	N	N	N	N	N
			D3	N	D3	N	D3	N
	Comment							
	Necessary	Comment	D4	N	D4	N	D4	N
	Y/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

Total volu	me Dist'n input MI/d	
Necessary Y/N		
N	Consistent with o	distribution input confidence grade reported in A2.3
N	Consistent with o	distribution input confidence grade reported in A2.3
N	Consistent with o	distribution input confidence grade reported in A2.3
N	Consistent with o	distribution input confidence grade reported in A2.3
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N	Consistent with distribution input confidence grade reported in A2.3
N	Consistent with distribution input confidence grade reported in A2.3
N	Consistent with distribution input confidence grade reported in A2.3
N	Consistent with distribution input confidence grade reported in A2.3

input confidence grade reported in A2	2.38
---------------------------------------	------

N.	100	No advator resident
N	100	No solution required
N	100	No solution required
		·
N	100	No solution required
N	200	No solution required
N	100	No solution required

120 Average Peak Ratio





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

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

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

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Authorised by:	Geoff Aitkenhead	Date:	20/07/06

Date: April 2006 Version 9.0 Table 5 of 11

CG	140 14 CG	150 15 CG	160 16 CG	170 17 CG	180 18	190 19 CG	200 20 CG	210 21 CG	220 22 CG	230 23 CG	240 24 CG	250 25 CG	260 26 CG	270 27 CG	280 28 CG
B4 B4 A1 B4	Glendevon  79.5 A3  84.5 A3  91.0 A1  6.485714286 A3	Glenfarg 42.9 B3 54.6 B3 85.0 A1 30.42857143 B3	12.10533333   B3   Invercannie   49.8   B3   57.9   B3   70.0   A1   12.10533333   B3   B3   B3   B3   B3   B3   B	100   100	Lintrathen  24.9 A2  27.9 A2  42.0 A1  14.08571429 A2	Mannofield  36.0 A2  41.1 A2  47.0 A1  5.896428571 A2	Marchbank 46.0 B4 53.1 B4 50.0 A1 -3.14 B4	Milngavie  297.9 A3  331.4 A3  489.5 A1  158.1271429 A3	Muirdykes 42.7 A3 55.3 A3 60.0 A1 4.695714286 A3	Overton Greenock 40.7   A3 43.7   A3 62.5   A1 18.8   A3	Pateshill  14.2 D4  16.6 D4  32.0 A1  15.43 D4	Perth Gowans Terrace 16.7 C4 20.5 C4 37.0 A1 16.5365 C4	31.4 C3 35.9 C3 40.0 A1 4.149671233 C3	Turret  62.9 A4  72.1 A4  75.0 A1  2.95 A4	Turriff  28.3 D3  30.7 D3  33.0 A1  2.281666667 D3
A1 A1 A1 A1 A1 A1 A1 A1	Impounding Re A1 1.41 A1 5.01 A1 36.88 A1 46 A1 185.48 A1 1482 A1 61.06 A1 645.1 A1 Low A1	River And Burn A1 2.11 A1 7.85 A1 19.75 A1 35 A1 241.93 A1 2692 A1 130.22 A1 1831.4 A1 Med A1	River And Burn A1 1.35 A1 17.3 A1 24.04 A1 49 A1 116.19 A1 576 A1 18.81 A1 216.7 A1 Med A1	Lochs A1  0.38 A1  1.39 A1  8.31 A1  15 A1  20.58 A1  37 A1  5.95 A1  22.9 A1  Low A1	Impounding Re A1  2.87 A1  13.3 A1  20.25 A1  28 A1  247.36 A1  964 A1  59.55 A1  243.3 A1  Med  A1	River And Burn A1  3.43 A1  69.2 A1  24.22 A1  55 A1  321.78 A1  3856 A1  99.39 A1  1658.2 A1  Med  A1	Impounding Re   A1	Impounding Re A1  0 A1  0 A1  15.67 A1  18 A1  17 A1  5.3 A1  High A1  A1	Impounding Re A1 2.35 A1 4.2 A1 44.19 A1 60 A1 291.77 A1 374 A1 53.46 A1 173.7 A1 Low A1	Impounding Re A1 1.32 A1 2.4 A1 75.22 A1 98 A1 326 A1 449 A1 11.82 A1 26.5 A1 Low A1	Impounding Re A1 1.72 A1 5.9 A1 116.15 A1 162 A1 414.81 A1 593 A1 21.67 A1 49.5 A1 Low A1	River And Burn A1 2.21 A1 6.96 A1 23.04 A1 44 A1 284.25 A1 20.38 A1 20.48 A1 140.7 A1 Med A1	Impounding Re A1 3.67 A1 31.4 A1 36.61 A1 47 A1 260.3 A1 1746 A1 49.19 A1 498.4 A1 Med A1	Impounding Re A1  1.22 A1  6.2 A1  28.43 A1  40 A1  166.5 A1  305 A1  32.65 A1  100.4 A1  Low A1	River And Burn A1  2.05 A1  4.47 A1  33.64 A1  65 A1  227.07 A1  409 A1  8.29 A1  22.5 A1  High A1
A1 A1 A1 A1 A1	0 A1 0.76 A1 0 A1 3.85 A1 0 A1	0 A1 0.94 A1 0 A1 0 A1 0 A1 0 A1	0.55 A1 0.94 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 3.85 A1 0 A1	0.56 A1 0 A1 0 A1 0 A1 0 A1 3.45 A1 9.68 A1	0 A1 2.45 A1 0 A1 0 A1 0 A1 0 A1	0 A1 0 A1 0 A1 0 A1 0 A1 0 A1	0.28 A1 0 A1 0 A1 0 A1 0 A1 13.64 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 1.3 A1 0 A1 0 A1 0 A1 0 A1	0.28 A1 0.61 A1 0 A1 0 A1 0 A1 0 A1 0 A1	0 A1 0 A1 0 A1 0 A1 0 A1 0 A1	0.82 A1 0 A1 0 A1 0 A1 0 A1 0 A1 0 A1
A1 A1 A1 A1	0 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 1 A1 0 A1	0 A1 0 A1 0 A1 1 A1 0 A1	0 A1 0 A1 1 A1 0 A1 0 A1	0 A1 0 A1 0 A1 1 A1 0 A1	0 A1 0 A1 1 A1 0 A1 0 A1	1 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 A1 0 A1	0 A1 0 A1 0 A1 1 A1 0 A1	0 A1 0 A1 0 A1 1 A1 0 A1	0 A1 0 A1 0 A1 1 A1 0 A1	0 A1 0 A1 1 A1 0 A1 0 A1	0 A1 0 A1 0 A1 1 A1 0 A1
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C4 C4 C4 C4 N C4 C4 C4 C4	231 C4 39 C4 31 C4 237 C4 0 N 39 C4 577.554 C4 242 C4 819.482 C4	257 C4 245 C4 31 C4 142 C4 3 C4 37 C4 715.19 C4 230 C4 945.165 C4	282 C4 234 C4 82 C4 97 C4 7 C4 30 C4 732.5 C4 184 C4 916.953 C4	157 C4 116 C4 43 C4 135 C4 2 C4 29 C4 482.377 C4 297 C4 779.566 C4	138 C4 2 C4 15 C4 77 C4 5 C4 18 C4 255.1 C4 120 C4 375.312 C4	162 C4 256 C4 14 C4 175 C4 0 N 20 C4 627.4 C4 134 C4 761.748 C4	80 C4 102 C4 34 C4 82 C4 4 C4 19 C4 320.382 C4 157 C4 477.523 C4	205 C4 -86 C4 223 C4 388 C4 0 N 125 C4 854.015 C4 654 C4 1508.348 C4	188 C4 81 C4 36 C4 160 C4 0 N 15 C4 479.592 C4 82 C4 561.202 C4	134 C4 40 C4 34 C4 195 C4 0 N 16 C4 419.992 C4 88 C4 508.001 C4	96 C4 38 C4 27 C4 100 C4 0 N 12 C4 273.251 C4 122 C4 394.801 C4	113 C4 89 C4 15 C4 57 C4 0 C4 16 C4 288.899 C4 109 C4 397.7 C4	181 C4 53 C4 33 C4 28 C4 3 C4 15 C4 313.189 C4 120 C4 433.459 C4	112 C4 14 C4 47 C4 181 C4 3 C4 19 C4 376.098 C4 114 C4 490.179 C4	137 C4 194 C4 34 C4 153 C4 0 N 14 C4 532.444 C4 108 C4 640.932 C4
N N C4	0 N 0 N 37 C4	0 N 0 N 24 C4	0 N 0 N 56 C4	0 N 0 N 2 C4	0 N 0 N 13 C4	0 N 0 N 36 C4	0 N 0 N 44 C4	0 N 0 N 71 C4	0 N 0 N 27 C4	0 N 0 N 56 C4	0 N 0 N 22 C4	0 N 0 N 15 C4	0 N 0 N 53 C4	0 N 0 N 172 C4	0 N 0 N 28 C4

Date: April 2006 Table 5 of 11

#### ANNUAL RETURN INFORMATION REQUIREMENT



Please refer to cor N Please refer to cor N Please refer to cor N

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SECTION E : OPERATING COSTS AND EFFICIENCY For treatment works with a capacity greater than 25 Ml/d Table E5: Large Water Treatment Works Information Database Y/N Works Size E5.0 Name
E5.1 Average day demand
E5.2 Peak day demand
E5.3 Works Capacity
E5.4 Headroom | I | MI/d | I | MI/d | I | MI/d | I | MI/d | C 17.31% of reading N 36.54% of readings N Additional WTW,8.33 11.54% of readings are eN 1.92% of readings are estir N 21.15% of reading N 32.69% of readings N 0% of readings are N Raw Water Source E.5.5 Source type
E.5.6 Average turbidity
E.5.7 Peak turbidity
E.5.8 Average colour
E.5.10 Peak colour
E.5.11 Peak scolour
E.5.11 Peak parameter 'a'
E.5.12 Peak parameter b'
E.5.13 Peak parameter b'
E.5.13 Peak parameter b'
E.5.14 Cryptosporidium risk assessment Compliance and Performance Miscellaneous Data Works Cost Please refer to cor N Please refer to cor N Please refer to cor N Please refer to cor N Please refer to cor N Please refer to cor N Please refer to cor N Please refer to cor N Please refer to cor N Please refer to comr N
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J Employment direct costs

Power direct costs

Hired and contracted services direct costs

Haterials and consumables direct costs

Service charges SEPA direct costs

Characteristics of the direct costs

Total firect costs Please refer to com N Please refer to com N Please refer to corr N
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Prepared by: Michael Breingan Date:	16/06/06
Checked by: Bill Nichols	16/06/06
Authorised by: Geoff Aitkenhead	16/06/06

140 14	150 15 Comment		17 1 Comment Comment	190 190 199 Comment	200 20 Comment	210 21 Comment				250 25 25 25 25		27 Commer	
Necessary Commer	Necessary Comment  Y/N	Necessary Comment N	Necessary  Y/N  Necessary  Y/N  Y/N	Comment Necessary Comment  Y/N	Necessary Comment  Y/N	Necessary Comment  Y/N	Necessary Comment N	ecessary Comment Ne		Y/N Comment Necess Y/N Y/N			ry Comment
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 N	N	N N N N	N 5.77% of readings N 5.77% of readings N 5.77% of readings	areN N	N N N N N N N N N N N N N N N N N N N	N N N N	28.85% of readings are N 28.85% of readings are N N 28.85% of readings are N	Additional WTW N Additional WTW N N Additional WTW N	11.54% of readings a N 11.54% of readings a N N 11.54% of readings a N	3.85% of readings arrN 3.85% of readings arrN N 3.85% of readings arrN	16.67% of readings : 16.67% of readings : 16.67% of readings :
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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 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 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 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 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	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 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 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	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 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 N N N	N N N N N	
N         Please ref           N         Please ref           N         Please ref           N         Please ref           N         Please ref           N         Please ref           N         Please ref           N         Please ref	efer to comm N Please refer to refer to remm N Please refer to	comm N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N Please refer to comme N comm N Please refer to comme N comm N Please refer to comme N comme N Please refer to comme N	Please refer to comm/N Please refer to comm/N Please refer to comm/N Please refer to comm/N Please refer to comm/N Please refer to comm/N Please refer to comm/N Please refer to comm/N Please refer to comm/N Please refer to comm/N Please refer to comm/N Please refer to comm/N	Please refer to comn N Please refer to Please refer to comn N Please refer to Please refer to comn N Please refer to Please refer to comn N Please refer to Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N Please refer to please refer to comn N Please refer to Please refer to comn N Please refer to Please ref	ocommeN Please refer to cor commeN Please refer to cor Please refer to cor Please refer to cor Please refer to cor Please refer to cor Please refer to cor Please refer to cor commeN Please refer to cor commeN Please refer to cor Please refer to c	mm N Please refer to comm mm N Please refer to comm mm N Please refer to comm mm N Please refer to comm mm N Please refer to comm mm N Please refer to comm mm N Please refer to comm mm N Please refer to comm mm N Please refer to comm mm N Please refer to comm mm N Please refer to comm	IN Please refer to comme N IN Please refer to comme N IN Please refer to comme N IN Please refer to comme N IN Please refer to comme N IN Please refer to comme N IN Please refer to comme N IN Please refer to comme N IN Please refer to comme N IN Please refer to comme N IN Please refer to comme N IN Please refer to comme N	Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N Please refer to comn N	Please refer to commen N Please refer to commen N Please refer to commen N Please refer to commen N Please refer to commen N Please refer to commen N Please refer to commen N Please refer to commen N Please refer to commen N Please refer to commen N Please refer to commen N Please refer to commen N Please refer to commen N Please refer to commen N	Please refer to o N Please refer to o N Please refer to o N Please refer to o N Please refer to o N Please refer to o N Please refer to o N Please refer to o N Please refer to o N Please refer to o N Please refer to o N Please refer to o N Please refer to o N Please refer to o N	Please refer to comm N Please refer to comm N Please refer to comm N Please refer to comm N Please refer to comm N Please refer to comm N Please refer to comm N Please refer to comm N Please refer to comm N Please refer to comm N Please refer to comm N Please refer to comm N Please refer to comm N	Please refer to commN Please refer to commN Please refer to commN Please refer to commN Please refer to commN Please refer to commN Please refer to commN Please refer to commN Please refer to commN Please refer to commN Please refer to commN Please refer to commN Please refer to commN	Please refer to comn Please refer to comn Please refer to comn Please refer to comn Please refer to comn Please refer to comn Please refer to comn Please refer to comn Please refer to comn Please refer to comn Please refer to comn Please refer to comn Please refer to comn

Date: April 2006
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Version 9.0



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

						10	20		30		40		50		60		199	
Line	Description	Ofwat	Units	Field					Repo	rt Yea	r-1 2004-0	5						
Ref.	•	Ref		Type	-	Area 1	Area	2	Area	3	Area	4	Area	5	Area 6	3	Total	
		CMR 02		. )   -	-	CG		CG		CG		CG		CG	1	CG		CG
		OMIT OF										-			I I			100
	Area Data		Name															
	Name	-															.'	
	Annual average resident connected population	-	000	I/C													0	)
	Total connected properties	-	000	I/C													0	)
	Volume of water delivered to households	-	Ml/d	I/C													0	J
	Volume of water delivered to non-households	-	MI/d	I/C													0	J
	Area	-	km 2	I/C													0	)
	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	j
E6.9	Total length of unlined iron mains	-	km	I/C													0	)
E6.10	Total length of mains > 300mm diameter	-	km	I/C													0	)
E6.11	Water mains bursts	-	nr	I/C													0	)
E6.12	Leakage level	-	MI/d	I/C													0	ز
E6.13	Properties reported for low pressure	-	nr	I/C													0	ĺ
			•			•		•										
	Pumping Stations																	
E6.14	Total number of pumping stations	-	nr	I/C													0	j
E6.15	Total capacity of pumping stations	-	m3/d	I/C													0	j
E6.15a	Total capacity of booster pumping stations	CM3, L18	Kw	I/C													0	)
	Average pumping head	-	nr															
-	0 1 0					•	1											
	Service Reservoirs																	
E6.17	Total number of service reservoirs	CM3, L13	nr	I/C													0	1
	Total capacity of service reservoirs	CM3, L14	MI	I/C				1									0	1
_5.10	. The tapathy to the little room one	55, 2.1.		0			l.											
	Water Towers																	
F6 19	Total number of water towers	CM3, L15	nr	I/C													0	1
	Total capacity of water towers	CM3, L16	MI	I/C				+									0	,
25.20	rotal dapatoly of mator towers	0.00, E10		., 5													U	4

Note: Water Distribution costs are reported on Table E1

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

Edition 2

Date: April 2006 Table 6a of 11



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

						10 20		0	30		4	10	50	)	60	1	199	
Line	Description	Ofwat	Units	Field					Re	port Ye	ear 2005-0	06						
Ref.		Ref		Type	Ar	ea 1	Are	a 2	Area	1 3	Are	ea 4	Are	a 5	Area	a 6	Tota	ı I
		CMR 02		7.		CG		CG		CG	1	CG		CG	1	CG		CG
Area Data Name																		
EC 0	Name		Name		Nort	h West	North	Coot	South	Coot	Courth	n West					1	
E6.0 E6.1		-	000	I/C		.66 B2	1151.3		1033.20		2402.					1	4944.222714	IDO
E6.1	Annual average resident connected population  Total connected properties	-	000	I/C		190 B2		B1 B2		5 B2		75 B2					2462.437	
E6.2	Volume of water delivered to households	+	MI/d	I/C		.61 C4		31 C4	177.8			95 C4					852.2270624	
E6.4	Volume of water delivered to non-households	-	MI/d	I/C		.51 B2		22 B2	88.3			01 B2					482.1282937	_
E6.5	Area		km 2	I/C		368 A1		18 A1	1320			85 A1					79976	
E6.6	Not in use	<del> </del>	KIII Z	1/0	300	300 AT	103	IUAI	1320	J A I	103	05 A I					73370	AI
	Number of supply zones	-	nr	I/C		204 A1		38 A1	5	5 A1		77 A1					374	A1
	production of collection																	
	Water main data																	
E6.8	Total length of mains	-	km	I/C	100	)24 A2	117	30 A2	929	6 A2	158	41 A2					46941.84455	A2
E6.9	Total length of unlined iron mains	-	km	I/C		298 B3		15 B3	426			30 B3					16307	
E6.10	Total length of mains > 300mm diameter	-	km	I/C		307 B2		91 B2		) B2		72 B2					5230.30939	B2
E6.11	Water mains bursts	-	nr	I/C	15	500 A4	12:	7 A4	142	1 A4	45	35 A4					8713	A3
E6.12	Leakage level	-	MI/d	I/C		91 C4	10	62 C4	17	5 C4	6	76 C4					1104.052111	C4
E6.13	Properties reported for low pressure	-	nr	I/C	28	331 C4		91 C4	172	1 C4		49 C4					12995	
	<u> </u>								•		•				•			
	Pumping Stations																	
E6.14	Total number of pumping stations	-	nr	I/C	2	209 B2	1;	35 B2	78	B2	1	38 B2					560	B2
E6.15	Total capacity of pumping stations	-	m3/d	I/C	8638	361 C4	6106	31 C4	5438	C4	15354	90 C4					3064362.9	C4
E6.15a	Total capacity of booster pumping stations	CM3, L18	Kw	I/C	82	209 C4	210	78 C4	60	7 C4	229	57 C4					52850.86	C4
	Average pumping head	-	nr	1		.99 C4		05 C4		1 C4		51 C3					38.39	
					<u> </u>				•		•				•			
	Service Reservoirs																	
E6.17	Total number of service reservoirs	CM3, 13	nr	I/C		575 B2	4:	37 B2	22	B2	.3	39 B2					1571	B2
	Total capacity of service reservoirs	CM3, L14	MI	I/C		.06 C3	1384.		527.0			59 B3					4075.877782	
-		,								_								
	Water Towers																	
E6.19	Total number of water towers	CM3, L15	nr	I/C		7 B2		4 B2		) A1		11 B2					22	B2
	Total capacity of tower towers	CM3, L16	MI	I/C	10	.09 B3	0.0	67 B3		) A1		04 B3					35.802	
	1 7	1 2 2,																4

Note: Water Distribution costs are reported on Table E1

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

Edition 2

Date: April 2006 Table 6b of 11



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

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

19	99
Repor	t Year
200	5-06
-	

Comment Necessary	Comment
Y/N	

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

	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
	Leakage level	-	Ml/d	I/C
F6.13	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	<u> </u>
E6.15a	Total capacity of booster pumping stations	CM3, L18	Kw	I/C
E6.16	Average pumping head	-	nr	

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

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

	Water Towers			
.19	Total number of water towers	CM3, L15	nr	I/C
.20	Total capacity of water towers	CM3, L16	MI	I/C
	, total dapatoly of trails to total	,		

issues with data		FIODICIII:	Solution
		•	
E6.13 should equal B2.9	N	199	No solution required
E6.3 should equal A2.1+A2.5	Υ	199	Please amend numbers so they reconcile
E6.2 should equal A1.69	Υ	199	Please amend numbers so they reconcile
E6.1 should equal A1.71	Υ	199	Please amend numbers so they reconcile

Note: Water Distribution costs are reported on Table E1

Prepared by: Michael Breingan
Checked by: Bill Nichols
Authorised by: Geoff Aitkenhead

Edition 2

Date: April 2006 Version 9.0 Table 6b of 11



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

					T	T	T T					
	D	011		10	20	30	40	50	60	70	80	199
Line	Description	Ofwat	Units Field		1	1						
Ref.		Ref	Туре	Area 1	Area 2	Area 3	Area 4	Area 5	Area <u>6</u>	Area 7	Area 8	Total
				CG	CG	CG	CG	CG	CG	CG	CG	CG
	Area Data		Name			Ī	1					
F7.0	1 0 0 = 0	1	Name	NIM	INIT	lor.	OW					1
	Name	T47. 14	1	NW 004 d Do	NE 1074 oldo	SE	SW cooz alpo					4070 440 00
	Annual average resident connected population  Annual average non- resident connected population	T17a, L1	000 I/C 000 I/C	284.1 B2 26.9 C4	1074.3 B2 35.2 C4	982.9 B2 28.1 C4	2337.2 B2 29.6 C4					4678.449 B2 119.7726667 C4
	Volume of sewage collected (daily average)	T17a, L2	000 I/C MI/d I/C	26.9 C4 321.4 C4	834.3 C4	711.6 C4	1996.3 C4					3863.660468 C4
	Total connected properties	T17a, L3	nr I/C	141288 B2	537122 B2	490392 B2	1189267 B2					2358069 B2
	Area of Sewerage District	T17a, L4		38672 A1	16848 A1	13161 A1	109207 B2					79608 A1
	Drained Area	T17a, L6		159 B2	381 B2	291 B2	752 B2					1581.597419 B2
	Annual Precipitation	T17a, L8		1684 B3	1114 B3	1067 B3	1458 B3					1364 B3
		,										
	Sewerage Data											
	Total length of sewer	T17a, L9	km I/C	4627 B3	11803 B3	10320 B3	22201 B3					48951 B3
E7.9	Total length of lateral sewer	-	km I/C	949 C4	4028 C4	3347 C4	7611 C4					15935 C4
	Length of combined sewer	T17a, L11	km I/C	1810 B3	3872 B3	3350 B3	8249 B3					17280.57777 B3
	Length of separate stormwater sewer	T17a, L12		727 B3	1890 B3	1890 B3	3450 B3					7956.595681 B3
	Length of sewer > 1000 mm diameter	T17a, L13		17 B3	160 B3	199 B3	406 B3					781.2342979 B3
	Length of Critical Sewer	T17a, L14		1110 B3	2557 B3	2313 B3	4840 B3					10820.9665 B3
E7.14	Sewer Collapses	T17a, L15	nr I/C	211 B4	409 B4	446 B4	1402 B4					2468 B4
_												
	Pumping Stations											
E7.15	Total number of pumping stations	T17a, L16		533 B3	595 B3	268 B3	435 B3					1831 B3
E7.16	Total capacity of pumping stations (m³/d)	T17a, L17	m <sup>3</sup> /d I/C	2904833 C4	3469932 C4	2718508 C4	5774342 C4					14867615 C4
E7.16a	Total capacity of pumping stations (kw)	CM6, L6	Kw I/C	13940 C4	18332 C4	10221 C4	28297 C4					70790 C4
	Average pumping head	T17a, L18		6 C5	18 C5	10 C5	18 C5		_		_	15 C5
		T17a, L19		354 B3	345 B3	182 B3	266 B3					1147 B3
		T17a, L20		2165390 C4	2287627 C4	2172982 C4	4580004 C4					11206003 C4
		T17a, L21	nr I/C	22 B4	12 B4	0 B4	8 B4					42 B4
E7.21	Total capacity of stormwater pumping stations	T17a, L22		257830 B4	235507 B4	0 B4	352518 B4					845855 B4
	Number of combined sewer overflows	T17a, L23		706 B4	1079 B4	643 B4	1472 B4					3900 B4
E7.23	Number of combined sewer overflows (screened)	T17a, L24	nr I/C	133 B4	211 B4	170 B4	382 B4					896 B4

Note: Sewerage costs are reported on Table E2

Prepared by: Michael BreinganDate:	18/09/06
Checked by: Bill Nichols	18/09/06
Authorised by: Geoff Aitkenhead	18/09/06

Edition 2

Table 7 of 11

#### ANNUAL RETURN INFORMATION REQUIREMENT



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

	E7.1 Annual average resident connected population	117a, L1 000 I/C	N	Improvement in the diN	Improvement in the N	Improvement in the N	Improvement in t		#N/A	#N/A	#N/A	N	Improvement in the definition of General	Benchmarking A1	Benchmarking A2	Benchmarking B2
	E7.2 Annual average non- resident connected population	T17a, L2 000 I/C	N	There is no Scottish \N	There is no ScottishN	There is no Scottish N	There is no Scot	#N/A	#N/A	#N/A	#N/A	N	There is no Scottish Water corpA1 G	A1 G	A1 G	A1 G
	E7.3 Volume of sewage collected (daily average)	T17a, L3 MI/d I/C	N	The assessment of thN	The assessment of N	The assessment of N	The assessment	#N/A	#N/A	#N/A	#N/A	N	The assessment of the volume (A2 G	A2 N	A2 G	A2 G
		T17a, L4 nr I/C	N	N	N	N		#N/A	#N/A	#N/A	#N/A	N	A3 G	A3 N	A3 N	A3 G
	E7.4 Total connected properties E7.5 Area of Sewerage District	T17a, L5 km 2 I/C	N	N	N	N		#N/A	#N/A	#N/A	#N/A	N	A4 N	A4 N	A4 N	A4 N
Г	E7.6 Drained Area	T17a, L6 km2 I/C	N	The drained areas anN	The drained areas aN	The drained areas εN	The drained area	#N/A	#N/A	#N/A	#N/A	N	The drained areas are adjusted AX G	AX G	AX G	AX G
	E7.7 Annual Precipitation	T17a, L6 km2 l/C T17a, L8 mm l	N	N	N	N		#N/A	#N/A	#N/A	#N/A	N	B2 G	B2 N	B2 N	B2 G
_													B3 G	R3 N	B3 N	B3 N
	Sewerage Data												D4 N	D4 N	D4 N	DA N
-		I I I											D4 N	D4 IN	D4 N	D4 IV
	E7.8 Total length of sewer	T17a, L9 km I/C	N	Uncertainties exist in N	Uncertainties exist inN	Uncertainties exist i N	Uncertainties exi		#N/A	#N/A	#N/A	N	Uncertainties exist in the assessBX G	BX N	BX N	BX G
L	E7.9 Total length of lateral sewer	- Km I/C	N	Uncertainties exist in N	Uncertainties exist inN	Uncertainties exist i N	Uncertainties exi	#N/A	#N/A	#N/A	#N/A	N	Uncertainties exist in the assessC2 N	C2 N	C2 N	C2 N
L	E7.10 Length of combined sewer	T17a, L11 km I/C	N	N	N	N		#N/A	#N/A	#N/A	#N/A	N	C3 N	C3 N	C3 N	C3 N
L	E7.11 Length of separate stormwater sewer	T17a, L12 km I/C	N	N	N	N		#N/A	#N/A	#N/A	#N/A	N	C4 N	C4 N	C4 N	C4 N
		T17a, L13 km I/C	N	N	N	N		#N/A	#N/A	#N/A	#N/A	N	C5 N	C5 N	C5 N	C5 N
	E7.13 Length of Critical Sewer	T17a, L14 km I/C	N	The length of critical :N	The length of critica N	The length of critica N	The length of crit	#N/A	#N/A	#N/A	#N/A	N	The length of critical sewer has CX N	CX N	CX N	CX N
	E7.14 Sewer Collapses	T17a, L15 nr I/C	N	The SW corporate sy N	The SW corporate sN	The SW corporate sN	The SW corpora	#N/A	#N/A	#N/A	#N/A	N	The SW corporate systems for rM N	M N	M N	M N
_													N N	N N	N N	N N
	Pumping Stations												DO N	DO N	D3 N	D3 N
_													D3 N	D3 IN	D3 N	
L	E7.15 Total number of pumping stations	T17a, L16 nr I/C	N	Data improvement is N	Data improvement i:N	Data improvement i: N	Data improveme		#N/A	#N/A	#N/A	N	Data improvement is ongoing to D4 N	D4 N	D4 N	D4 N
	E7.16 Total capacity of pumping stations (m³/d)	T17a, L17 m3/d I/C	N	Data improvement is N	Data improvement i:N	Data improvement i:N	Data improveme	#N/A	#N/A	#N/A	#N/A	N	Data improvement is ongoing to D5 N	D5 N	D5 N	D5 N
	7.16a Total capacity of pumping stations (kw)	CM6, L6 Kw I/C	N	Data improvement is N	Data improvement i:N	Data improvement i:N	Data improveme	#N/A	#N/A	#N/A	#N/A	N	Data improvement is ongoing to D6 N	D6 N	D6 N	D6 N
	E7.17 Average pumping head	T17a, L18 m I	N	Data improvement is N	Data improvement i:N	Data improvement i:N	Data improveme	#N/A	#N/A	#N/A	#N/A	N	Data improvement is ongoing to DX N	DX N	DX N	DX N
	E7.18 Total number of combined pumping stations	T17a, L19 nr I/C	N	N	N	N		#N/A	#N/A	#N/A	#N/A	N				
	E7.19 Total capacity of combined pumping stations	T17a, L20 m3/d I/C	N	Data improvement is N	Data improvement i:N	Data improvement i: N	Data improveme	#N/A	#N/A	#N/A	#N/A	N	Data improvement is ongoing to develop the pum	ping stations data in the as	set inventory	
	E7.20 Total number of stormwater pumping stations	T17a, L21 nr I/C	N	Data improvement is N	Data improvement is N	Data improvement is N	Data improveme	#N/A	#N/A	#N/A	#N/A	N	Data improvement is ongoing to develop the pum	ping stations data in the as	set inventory	
	E7.21 Total capacity of stormwater pumping stations	T17a, L22 m3/d I/C	N	Data improvement is N	Data improvement i:N	Data improvement is N	Data improveme	#N/A	#N/A	#N/A	#N/A	N	Data improvement is ongoing to develop the pum			
		T17a, L23 nr I/C	N	The assigned confide N	The assigned conficN	The assigned conficN	The assigned co	#N/A	#N/A	#N/A	#N/A	N				ror as the future programme of Drainage Area Studies is expected to report further overflows although the estimation of how many this may be is uncertain.
	E7.23 Number of combined sewer overflows (screened)	T17a L24 pr I/C	N	Similarly to the previo N	Similarly to the previN	Similarly to the prev N	Similarly to the p		#N/A	#N/A	#N/A	N	Similarly to the previous Line the number of overf			
L		,		, 10 pronore	a, to she provide								a , to the promote the file file file file file file file fil			

Issues with data Problem ? Solution

E7.1 should equal A3.83 N 199 No solution required

#### Note: Sewerage costs are reported on Table E2

Prepared by: Michael Breingan	18/09/06
Checked by: Bill NicholsDate:	18/09/06
Authorised by: Geoff Aitkenhead	18/09/06

Edition 2

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

_	Line   Description   Ofwat   Units   Field   Type														199	
	Description		Units					•	•	Treatment Categor	y			•	•	Total
Ref.		Ref		Type	Septic Tanks	Primar <u>y</u>								. —		
							Sec Activated		Tambiam A1	Tartiani AO	Tartiani D1	Tartianu DO			000	
					CG	CG	Sludge CG	Sec biological CG	TertiaryA1 CG	Tertiary A2 CG	Tertiary B1	G Tertiary B2 CG	Preliminary CG	Sea Screened CG	Unscreened CG	CG
	Numbers															
	Size Band 0	-	nr	I/C	987 A2	13 A2	13 A2	84 A2	3 A2	1 A2	8 A2	2 A2	0 A2	0 A2	47 A2	1158 A2
	Size Band 1	T17c, L1	nr	I/C	137 A2	11 A2	28 A2	48 A2	3 A2	0 A2	9 A2		0 A2	0 A2	34 A2	272 A2
E8.3	Size Band 2 Size Band 3	T17c, L2 T17c, L3	nr nr	I/C	59 A2 27 A1	9 A2 16 A1	14 A2 35 A1	44 A2 62 A1	2 A2 5 A1	3 A2 1 A1	6 A2		1 A2 5 A1	0 A2 2 A1	5 A2 13 A1	147 A2 184 A1
	Size Band 4	T17c, L3	nr	I/C	2 A1	10 A1	47 A1	40 A1	5 A1	1 A1	8 A1		7 A1	10 A1	3 A1	135 A1
	Size Band 5	T17c, L5	nr	I/C	0 A1	3 A1	21 A1	6 A1	2 A1	2 A1	1 A1		2 A1	0 A1	0 A1	37 A1
	Size Band 6 (Large Works)	T17c, L6	nr	I/C	0 A1	0 A1	19 A1	1 A1	1 A1	0 A1	1 A1		0 A1	0 A1	0 A1	22 A1
	Total Sewage Treatment Works	T17c, L7	nr	С	1212 A2	62 A2	177 A2	285 A2	21 A2	8 A2	47 A2		15 A2	12 A2	102 A2	1955 A2
	Small Sewage treatment works with ammonia consent 5 - 10 mg Small Sewage treatment works with ammonia consent <= 5 mg/		nr nr	I/C	0 A1 0 A1	1 A1 0 A1	14 A1 13 A1	32 A1 15 A1	1 A1 9 A1	0 A1 3 A1	6 A1 4 A1		0 A1 0 A1	0 A1 0 A1	0 A1 0 A1	55 A1 46 A1
E6.10	Small Sewage treatment works with animonia consent <= 5 mg/	/I 11/6, L9	111	I/C	UAI	UAI	ISIAI	15 A1	JAI	JAI	4 A1	ZIAI	UAI	UAI	UAI	40 A1
																Total excluding Septic
Loading (average daily load)\ E8.11   Size Band 0																
								240 B3					0 B3			
	Size Band 2 Size Band 3		kg BOD/day		1311 B3 1546 B3	247 B3 1043 B3	352 B3 2424 B3	1024 B3 4401 B3	43 B3 363 B3	69 B3 124 B3	150 B3 738 B3		16 B3 366 B3	0 B3 118 B3	147 B3 876 B3	2149.945822 B3 10715.14462 B3
	Size Band 4		kg BOD/day		507 B3	2752 B3	14067 B3	10084 B3	1421 B3	347 B3	2340 B3		1725 B3	2469 B3	869 B3	36776.69355 B3
E8.16	Size Band 5	T17d, L5	kg BOD/day	I/C	0 B3	2391 B3	19155 B3	4359 B3	2092 B3	1311 B3	1046 B3	0 B3	1733 B3	0 B3	0 B3	32086.67306 B3
	Size Band 6 (large works)		kg BOD/day		0 B3	0 B3	123283 B3	4487 B3	17685 B3	0 B3	2405 B3		0 B3	0 B3	0 B3	147859.9609 B3
	Total Load Received		kg BOD/day		6623.471479 B3	6579.631532 B3	159611.9268 B3	25143.85737 B3	21653.34427 B3	1852.921588 B3	6801.233896 B3		3839.385743 B3	2587.333959 B3	2386.242599 B3	231559.605 B3
	Small Sewage treatment works with ammonia consent 5 - 10 mg Small Sewage treatment works with ammonia consent <= 5 mg/				0 B3 0 B3	59 B3 0 B3	5221 B3 4027 B3	2096 B3 3311 B3	58 B3 1347 B3	0 B3 1112 B3	827 B3 201 B3	1 B3 257 B3	0 B3 0 B3	0 B3 0 B3	0 B3 0 B3	8262.844373 B3 10255.03465 B3
L0.20	Small Sewage treatment works with animonia consent <= 5 mg/	/II 11/U, L3	ng bob/day	1/0	0 00	0 03	4027 03	3311 03	1347 03	1112 00	201 03	237 03	0 03	0 03	0 03	10233.03403 D3
	Compliance															Total
E8.21	Size Band 0	1 - 1	%			100 B2	95 B2	90.1 B2	98.6 B2	0 N	100 B2	100 B2	0 N	0 N	100 B2	Total
E8.22	Size Band 1	T17e, L1	%	I/C		100 B2	90.6 B2	96.8 B2	100 B2	0 N	90.6 B2	100 B2	0 N	0 N	0 N	
	Size Band 2	T17e, L2	%	I/C		94.4 B2	92.5 B2	97.2 B2	95.8 B2	100 B2	98 B2		0 N	0 N	0 N	
	Size Band 3 Size Band 4	T17e, L3	%	I/C		99.1 B2 90 B2	97.7 B2 94.9 B2	95.1 B2 96.2 B2	89 B2 97.9 B2	100 B2 100 B2	98.2 B2 94.8 B2		0 N 100 B2	100 B2 100 B2	0 N 83.3 B2	
	Size Band 5	T17e, L4	%	I/C		100 B2	96.4 B2	90.5 B2	97.9 B2 90.9 B2	97.9 B2	100 B2	96.7 B2	0 N	0 N	0 N	
	Size Band 6 (large works)	T17e, L6	%	I/C		0 N	93.3 B2	100 B2	98.7 B2	0 N	100 B2	0 N	0 N	0 N	0 N	
	Average compliance by works - all sizes	T17e, L7	%	I/C		97 B2	94.8 B2	95.2 B2	95.5 B2	99.3 B2	96.4 B2		100 B2	100 B2	91.7 B2	
	Small Sewage treatment works with ammonia consent 5 - 10 mg		%	I/C		0 N	98.4 B2	97 B2	91.7 B2	0 N	93.9 B2	100 B2	0 N	0 N	0 N	
E8.30	Small Sewage treatment works with ammonia consent <= 5 mg/	/I T17e, L9	%	I/C		0 N	90.6 B2	95 B2	93.2 B2	100 B2	97.2 B2	100 B2	0 N	0 N	0 N	
	Costs															Total
F8 31	Direct costs for works in size band 0	1 - 1	£000	I/C	874.09 C4	15.497 C4	102.322 C4	426.917 C4	59.711 C4	10.222 C4	47.34 C4	5.284 C4	0 N	0 N	20.765 C4	1562,148 C4
	Direct costs for works in size band 1	-	£000	I/C	399.283 C4	37.766 C4	327.092 C4	587.45 C4	46.968 C4	0 N	174.079 C4	0.201	0 N	0 N	32.273 C4	1618.389 C4
	Direct costs for works in size band 2	-	£000	I/C	343.631 C4	52.404 C4	301.573 C4	542.298 C4	31.366 C4	56.09 C4	69.081 C4	31.563 C4	10.049 C4	0 N	23.826 C4	1461.881 C4
	Direct costs for works in size band 3	-	£000	I/C	301.838 C4	202.924 C4	762.886 C4	1101.231 C4	145.266 C4	63.864 C4	322.881 C4	74.228 C4	74.544 C4	38.633 C4	55.624 C4	3143.919 C4
	Direct costs for works in size band 4	-	000£	I/C	7.785 C4	231.528 C4	2555.494 C4 2623.926 C4	1319.664 C4	243.287 C4	52.358 C4	337.936 C4 53.372 C4		158.651 C4	101.05 C4	53.315 C4	5333.097 C4 3930.248 C4
E8.36	Direct costs for works in size band 5 Direct costs for works in size band 6 (large works)	-	£000	I/C	0 N 0 N	211.16 C4	2623.926 C4 6371.578 C4	491.945 C4 413.261 C4	313.076 C4 648.277 C4	192.591 C4 0 N	53.372 C4 151.816 C4		44.178 C4 0 N	0 N 0 N	0 N 0 N	3930.248 C4 7584.932 C4
	Direct costs for all sewage treatment works	-	£000	C	1926.627 C4	751.279 C4	13044.871 C4	4882.766 C4	1487.951 C4	375.125 C4	1156.505 C4	396.582 C4	287.422 C4	139.683 C4	185.803 C4	24634.614 C4
E8.39	General and support expenditure	-	£000	I/C	370.628 C4	141.53 C4	2780.948 C4	1288.693 C4	302.748 C4	92.489 C4	273.398 C4	63.733 C4	17.127 C4	19.93 C4	28.465 C4	5379.689 C4
	Functional expenditure	-	£000	С	2297.255 C4	892.809 C4	15825.819 C4	6171.459 C4	1790.699 C4	467.614 C4	1429.903 C4		304.549 C4	159.613 C4	214.268 C4	30014.303 C4
	Power costs	-	0003	I/C	77.053 C4	150.962 C4	3831.111 C4	470.405 C4	517.85 C4	96.282 C4	268.908 C4 207.882 C4		19.542 C4	18.109 C4	5.12 C4	5637.876 C4
⊏8.42	Service charges SEPA	1 -	2000	I/C	928.132 C4	248.449 C4	2299.849 C4	1208.452 C4	217.417 C4	48.899 C4	207.882 C4	55.598 C4	225.3 C4	72.024 C4	109.916 C4	5621.918 C4
Prepare	d by: Michael Breingan	Date: 16/0	06/06													
1	,															
Checke	d by: Bill Nichols	Date: 16/0	06/06													
Authoria	sed by: Geoff Aitkenhead	Date: 16/0	06/06													
Authoris	sed by. Geon Altkennead	Date: 16/0	00/00													

Edition 1

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SECTION E : OPERATING COSTS AND EFFICIENCY	1												
Table E8: Wastewater Explanatory Factors - Sewage Treatment Works	_												
Line (Description Ofwat Units Field Ref.	Septic Tanks	Primary Sec Acti	30	40	50 Fertiary A1	ertiary A2	ertiary B1	Tertiary B2 Se	90  a Preliminary	100 ea Screened Sec	110	199 Fotal	
		Comment Comment Necessary Y/N Y/N		ary Comment Nece	ment Ssary Comment Neces	sary Comment Neces	sary Comment Nece	nment essary Comment Neces	sary Comment Neces	sary Comment Neces	sary Comment Necessar	y Comment	
Numbers	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 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	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 N N N N N N	N N 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
Loading (average daily load):   Est 1 Size Bood	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 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	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 N N N N N N	N N N N N N N N	N N N N N N N		C5 N CX N M N N N D3 N D4 N D5 N D6 N
Compliance	8N/A N 8N/A N 8N/A N 8N/A N 8N/A N 8N/A N 8N/A N 8N/A N 8N/A N 8N/A N 8N/A N 8N/A N 8N/A N 8N/A N 8N/A N 8N/A 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 N N N	N N N N N N N	N N N N N N N	No sampled wo N No sampled wo N N N N N N N N N No sampled wo N N No sampled wo N N No sampled wo N N	N N N N N N N N	N N N N No sampled worN No sampled worN N	No sampled woN No sampled woN No sampled woN No sampled woN No sampled woN No sampled woN No sampled woN No sampled woN No sampled woN No sampled woN	No sampled wN No sampled wN No sampled wN N N No sampled wN No sampled wN No sampled wN No sampled wN No sampled wN	No sampled works in this No sampled works in this No sampled works in this No sampled works in this No sampled works in this No sampled works in this No sampled works in this	category and size band category and size band category and size band category and size band category and size band	
Costs   Cost	N Please refer to N Please refer to N Please refer to N N Please refer to N N Please refer to N N Please refer to N N Please refer to N N Please refer to N N Please refer to N N Please refer to N N Please refer to N N Please refer to N N N N Please refer to N N N N Please refer to N N N N Please refer to N N N N Please refer to N N N N Please refer to N N N N Please refer to N N N N Please refer to N N N N P N N N N N P N N N N N N N N	Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N Please refer 1 N	Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN	Please refer to ccN Please refer to ccN Please refer to ccN Please refer to ccN Please refer to ccN Please refer to ccN Please refer to ccN Please refer to ccN Please refer to ccN Please refer to ccN Please refer to ccN Please refer to ccN Please refer to ccN Please refer to ccN Please refer to ccN	Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N Please refer to c N	Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN Please refer to IN	Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N	Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN Please refer to cN	Please refer to iN Please refer to iN Please refer to iN Please refer to iN Please refer to iN Please refer to iN Please refer to iN Please refer to iN Please refer to iN Please refer to iN Please refer to iN Please refer to iN Please refer to iN Please refer to iN Please refer to iN	Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N Please refer to N	Please refer tit N Please refer tit N Please refer tit N Please refer tit N Please refer tit N Please refer tit N Please refer tit N Please refer tit N Please refer tit N Please refer tit N Please refer tit N Please refer tit N Please refer tit N Please refer tit N Please refer tit N	Please refer to commentary Please refer to commentary	
Issues with data	Solution Please amend numbers if they d												
Prepared by: Michael Breingan													

Date: April 2006
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# SECTION E : OPERATING COSTS AND EFFICIENCY Table E9: Large Sewage Treatment Works Information Database

Table L9. Large Sewage Treatme	III WOIRS III	ioi illatioi	Dutubusc												
			10	20	30	40	50	60	70	80	90	100	110	120	130
Line Description		Units Field		2	3	4	5	6	7	8	9	10	11	12	13
Ref.	Ref	Тур													
			CG	CG	CG	cg	cg	cg	CG	cg	cg	СС	cg	CG	
			Ca	Cd	CG	CG	CG	CG	Ca	CG	CG	CG	Cd	Cd	
Works Size		Name					-	-			-		-		
E9.0 Name E9.1 Annual average resident connected population	- T17b, L2	000 I	7 111010	Alloa 32.4 B3	Ardoch 46.8 B3	Bo'ness 14.6 B3	Carbarns 41.2 B3	Dalderse 67.1 B3	Daldowie 190.8 B3	Dalmarnock 134.4 B3	Dunfermline 26.8 B3	Dunnswood 28.2 B3	Erskine 63.1 B3	Galashiels 14.7 B3	Hamilton 51.8
E9.2 Annual average non-resident connected population		000 I		0.6 B3	0.4 B3	0.1 B3	0.1 B3	0.6 B3	0.8 B3	0.6 B3	0.2 B3	0.2 B3	0.3 B3	0.3 B3	0.3
E9.3 Trade effluent load received by works	T17b, L4 kg/			650 B4	871 B4	1179 B4	434 B4	1357 B4	8030 B4	17772 B4	423 B4	229 B4	591 B4	1221 B4	692
E9.4 Tanker load received by works E9.5 Population equivalent of total load received	T17b, L5 kg/	/COD/day I 000 I	0 B4 46.9 B3	2 B4 42.3 B3	12 B4 63.4 B3	246 B4 25.7 B3	0 B4 49.8 B3	91 B4 92.5 B3	0 B4 294.7 B3	0 B4 312.7 B3	0 B4 38.0 B3	0 B4 34.4 B3	0 B4 76.9 B3	9439 B4 40.1 B3	68.4
· · · · · · · · · · · · · · · · · · ·	-, -	,													
Treatability			<u> </u>								. <u></u> .				
E9.6 Biological Oxygen Demand (BOD5) of influent	T17b, L7	mg/l I		119 B3 379 B3	129 A2 289 A2	0 M 0 M	126 A2 317 A2	130 B3 466 B3	80 B3	96 B3 259 B3	125 A2 298 A2	185 A2 516 A2	30 A2 107 A2	161 B4	113 289
E9.7 Chemical Oxygen Demand (COD) of influent E9.8 Total Organic Carbon (TOC) of influent	T17b, L8 T17b, L9	mg/l I		0 N	0 N	0 N	0 N	0 N	211 B3 0 N	259 B3	298 AZ 0 N	0 N	0 N	504 B4 0 N	289
E9.9 Suspended solids (SS) of influent	T17b, L10	mg/l I	174 B4	286 B4	145 A2	0 M	122 A2	52 B4	103 B4	103 B4	163 A2	206 A2	32 A2	222 B4	136
E9.10 Ammoniacal Nitrogen (NH3) of influent	T17b, L11	mg/l I	20 B4	14 B4	16 B4	0 N	16 B4	15 B4	14 B4	14 B4	18 A2	25 B4	8 A2	18 B4	30
Compliance			7												
E9.11 Suspended solids consent	T17b, L12	mg/l l	100 A1	0 N	40 A1	0 N	100 A1	0 N	30 A1	30 A1	0 N	15 A1	30 A1	35 A1	100
E9.12 BOD consent	T17b, L13	mg/l I	20 A1	25 A1	25 A1	0 N	15 A1	20 A1	15 A1	25 A1	25 A1	10 A1	25 A1	25 A1	20
E9.13 COD consent E9.14 Ammonia consent	T17b, L14	mg/l I		125 A1 30 A1	125 A1 0 N	125 A1 0 N	125 A1 10 A1	125 A1 25 A1	125 A1 5 A1	125 A1 4 A1	125 A1 0 N	125 A1 5 A1	125 A1 0 N	125 A1 15 A1	125
E9.15 Phosphate consent	T17b, L15	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
E9.16 Compliance with effluent consent standard	T17b, L17	% I	95.8 A1	100 A1	89.1 A1	0 N	97 A1	91.5 A1	98.7 A1	92 A1	100 A1	100 A1	100 A1	100 A1	66.7
Flow			<b>-</b>												
E9.17 Average daily flow in dry weather	T17b, L18	MI/d I	109 B4	18 C4	23 B4	6 B4	18 B4	33 C4	216 C5	89 B4	18 B4	10 C4	41 C4	4 B4	22
E9.18 Ratio of daily maximum to to minimum flow	T17b, L19	nr I	2.5 C4	3 C4	4.3 B4	1.6 B4	1.3 B4	2.5 C5	2 C5	1.25 B4	2.9 B4	1.4 C4	0 M	1.6 B4	2
Tuestassat Weater Oats now.			<b>=</b>												
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	1
E9.20 Secondary activated sludge	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	0 A1	1
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	0 A1	1 A1	0
E9.22 Tertiary A1 E9.23 Tertiary A2	T17b, L23	1/0 I 1/0 I		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 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	0 A1	0 A1	1 A1	0
E9.25 Tertiary B2	T17b, L26	1/0 I	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0 A1	0
Miscellaneous Data			1												
E9.26 Distance to next works	T17b, L27	km I	4 B2	3 B2	7 B2	5 B2	2 B2	6 B2	5 B2	7 B2	2 B2	4 B2	3 B2	4 B2	2
E9.27 Sea outfalls at works	T17b, L28	1/0 I	0 A1	0 A1	1 A1	1 A1	0 A1	0 A1	0 A1	0 A1	1 A1	0 A1	0 A1	0 A1	0
E9.28 Terminal Pumping costs E9.29 Own sludge	T17b, L29	1/0 I 1/0 I		0 A1 0 A1	1 A1 0 A1	0 A1 1 A1	0 A1 0 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	0
E9.30 Own sludge costs	T17b, L30	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
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	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	U
Works Cost															
E9.33 Employment costs		£'000 l	73 B3	63 B3	82 B3	58 B3	76 B3	90 B3	133 B3	289 B3	40 B3	96 B3	31 B3	21 B3	85
E9.34 Power costs E9.35 Hired and contracted services		£'000 I	42 B3 3 B3	105 B3 15 B3	85 B3 6 B3	34 B3	92 B3 5 B3	131 B3 7 B3	367 B3 9 B3	353 B3 27 B3	93 B3 2 B3	65 B3 4 B3	123 B3 0 B3	83 B3 10 B3	79
E9.36 Materials and consumables		£'000 I		0 BX	25 B3	6 B3 2 B3	1 B3	25 B3	2 B3	3 B3	31 B3	3 B3	19 B3	15 B3	2
E9.37 Service charges SEPA		£'000 I		2 B3	29 B3	18 B3	39 B3	152 B3	87 B3	79 B3	21 B3	39 B3	33 B3	21 B3	23
E9.38 Other direct costs E9.39 Total direct costs		£'000 C		22 B3 206.374 B3	14 B3 240.433 B3	0 B3 118.023 B3	3 B3 215.002 B3	14 B3 419.918 B3	51 B3 648.278 B3	44 B3 794.219 B3	31 B3 216.821 B3	5 B3 211.344 B3	0 B3 206.541 B3	2 B3 151.816 B3	255.535
E9.40 General and support expenditure	T17b, L37	£'000 I	30 B3	28 B3	40 B3	22 B3	32 B3	62 B3	115 B3	191 B3	20 B3	21 B3	47 B3	11 B3	44
E9.41 Functional Expenditure	T17b, L38	£'000 C	192.98 B3	233.889 B3	280.139 B3	140.434 B3	247.277 B3	482.029 B3	763.744 B3	984.743 B3	236.707 B3	232.494 B3	253.239 B3	163.293 B3	299.131
E9.42 Estimated terminal pumping station costs	T17b, L39	£'000 I	0 N	0 N	9 C3	0 N	0 N	0 N	0 N	56 C3	16 N	0 N	0 N	0 N	0
E9.43 Estimated sludge costs		£'000 I	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0 N	0

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

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

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### ANNUAL RETURN INFORMATION REQUIREMENT



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

Line Ref.	Ofwat Ref	Units	Field Type		10		20 <b>2</b>		30 <b>3</b>		40 <b>4</b>		50 <b>5</b>		6	70 <b>7</b>			80	90	100 10
Works Size		Name		Comment Necessary Y/N	Comment	Commen Necessar Y/N	t Y Comment	Comm Neces:	Sary Comment	Nec	mment essary Comment	Comment Necessary Y/N		Comment Necessary Y/N	Comment	Comment Necessary Y/N	Comment	Comment Necessary	t Y Comment	Comment Necessary Comment	Comment Necessary Y/N
E9.0 Name     E9.1 Annual average resident connected population     E9.2 Annual average non-resident connected population     E9.3 Trade effluent load received by works     E9.4 Tanker load received by works     E9.5 Population equivalent of total laod received	T17b, L4	kg/COD/day	İ	N N N N N	Data capture is st	N N Il sut N	Data capture is Data capture is	N N still sıN	Data capture Data capture	N N s is still N	Data capture is stil	N N sıN	Data capture is st Data capture is st	N N ill N	Data capture is stil	N N N	Data capture is s	N N ill N	Data capture is still Data capture is still	N N siN Data capture	N N e is still N
Treatability  E9.6 Biological Oxygen Demand (BOD5) of influent E9.7 Chemical Oxygen Demand (COD) of influent E9.8 Total Organic Carbon (TOC) of influent E9.9 Suspended solids (SS) of influent E9.10 Ammoniacal Nitrogen (NH3) of influent	T17b, L7 T17b, L8 T17b, L9 T17b, L10 T17b, L11	mg/l mg/l	İ	N N N N	Scottish Water do More recent data More recent data	not a N	Scottish Water More recent dat More recent dat	a not N	Scottish Wat	N	No sample data ar No sample data ar Scottish Water doe No sample data ar There is no ammo	eaN sıN eaN	Scottish Water do	N	Scottish Water doe More recent data n More recent data n	N	Scottish Water d More recent data More recent data	n(N	Scottish Water does More recent data no More recent data no	t N	N N Ier doe N N
Compliance     E9.11   Suspended solids consent     E9.12   BOD consent     E9.13   COD consent     E9.14   Ammonia consent     E9.15   Phosphate consent     E9.16   Compliance with effluent consent standard	T17b, L12 T17b, L13 T17b, L14 T17b, L15 T17b, L16 T17b, L17	mg/l mg/l mg/l mg/l mg/l	İ	N N N N N	There is no phosp	N N N N hate N	There is no sus	N N N	There is no a There is no p		There is no susper There is no BOD s There is no ammo There is no phospl Works not sample	ar N N nia N nat N	There is no phosp	N N N N Dr N	There is no susper	N N N	There is no phos	N N N N Oh N	There is no phospha	N There is no s N N N There is no s at N There is no s	N N ammon N
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Treatment Works Category  E9.19   Primary E9.20   Secondary activated sludge E9.21   Secondary biological E9.22   Tertiary A1 E9.23   Tertiary A2 E9.24   Tertiary B1 E9.25   Tertiary B2	T17b, L20 T17b, L21 T17b, L22 T17b, L23 T17b, L24 T17b, L25 T17b, L26	1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0	I	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 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 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 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 N N N N N N N N	N N N N N
E9.27 Sea outfalls at works E9.28 Terminal Pumping costs E9.29 Own sludge E9.30 Own sludge costs E9.31 Sludge centre	T17b, L27 T17b, L28 T17b, L29 T17b, L30 T17b, L31 T17b, L32 T17b, L33	km 1/0 1/0 1/0 1/0 1/0 1/0 1/0	İ	N N N N N N	Please refer to co	N	Please refer to	N	Please refer Please refer	N	Please refer to cor	N	Please refer to co	N	Please refer to con	N	Please refer to co	N	Please refer to com	N	N
Works Cost  E9.33 Employment costs E9.34 Power costs E9.35 Hired and contracted services E9.36 Materials and consumables E9.37 Service charges SEPA E9.38 Other direct costs E9.39 Total direct costs E9.40 General and support expenditure E9.41 Functional Expenditure	T17b, L35	£,000 £,000 £,000 £,000 £,000 £,000 £,000 £,000 £,000 £,000 £,000	i I	N N N N N N N N N N N N N N N N N N N	Please refer to co	N N N N N N N N N N N N N N N N N N N	Please refer to	N N N N N N N N N	Please refer	N N N N N N N N N N N N N N N N N N N	Please refer to cor	N N N N N N N N N	Please refer to co		Please refer to con	N N N N N N N N N N N N N N N N N N N	Please refer to co	N N N N N N N N N N N N N N N N N N N	Please refer to comi	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 N N N
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Prepared by: Michael Breingan...... ... Date: 16/06/06..... Checked by: Bill Nichols.. . Date: 16/06/06... ... Date: 16/06/06... Authorised by: Geoff Aitkenhead.....

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

					10	11	12	20	30	31	32	40	50	199
Line	Description	Ofwat	Units	Field					Disposal category					
					Farmland	Farmland	Farmland				Land			
Ref.		Ref		Type	Untreated	Conventional	Advanced	Landfill	Incineration	Composted	Reclamation	Not in use	Other	Total
					CG	CG	CG	CG	CG	CG	CG	CG	CG	CG
					Cu	Cd	Cd	Cu	Cu	Cu	Cu	CG	Cu	Ca
	Sludge volumes													_
E10.1	Resident population served	T17g, L1	0	I	0 B3	364 B3	264 B3	141 B3	1,303 B3	76 B3	487 B3		0 B3	2633.929165 B3
E10.2	Amount of sewage sludge	T17g, L2	ttds	- 1	0 B3	9.631 B3	3.805 B3	2.232 B3	0 B3	1.51 B3	9.597 B3		0 B3	26.775 B3
														·
	Sludge Treatment and Disp	osal cost	!											
E10.3	Employment costs	T17g, L3	£000	I	0 CX	846.552 C4	181.702 C4	434.162 C4	0 CX	78.682 C4	972.414 C4		0 CX	2513.512 C4
E10.4	Power costs	T17g, L6	£000	- 1	0 CX	146.804 C4	56.426 C4	280.459 C4	0 CX	2.577 C4	56.315 C4		0 CX	542.581 C4
E10.5	Hired and contracted services	-	£000	- 1	0 CX	556.048 C4	368.777 C4	611.592 C4	0 CX	170.649 C4	1525.923 C4		0 CX	3232.989 C4
E10.6	Materials and consumables	-	£000	_	0 CX	100.317 C4	38.812 C4	120.525 C4	0 CX	10.266 C4	99.029 C4		0 CX	368.949 C4
E10.7	Service charges SEPA	-	£000	- 1	0 CX	0.077 C4	0.358 C4	0.087 C4	0 CX	0.206 C4	1.42 C4		0 CX	2.148 C4
	Other direct costs	-	£000	1	0 CX	6.994 C4	2.893 C4	3.832 C4	0 CX	1.541 C4	15.193 C4		0 CX	30.453 C4
E10.9	Total direct costs	T17g, L5	£000	С	0 CX	1656.792 C4	648.968 C4	1450.657 C4	0 CX	263.921 C4	2670.294 C4		0 CX	6690.632 C4
		T17g, L8	£000		0 CX	684.412 C4	148.503 C4	332.061 C4	0 CX	65.295 C4	776.836 C4		0 CX	2007.107 C4
E10.11	Functional Expenditure	T17g, L9	£000	С	0 CX	2341.204 C4	797.471 C4	1782.718 C4	0 CX	329.216 C4	3447.13 C4		0 CX	8697.739 C4

	Sludge Treatment Type				No Sludge	CG
E10.12	In treatment works size band 0	-	nr		1158	A2
E10.13	In treatment works size band 1	-	nr		272	A2
E10.14	In treatment works size band 2	-	nr		147	A2
E10.15	In treatment works size band 3	-	nr		183	A1
E10.16	In treatment works size band 4	-	nr		130	A1
E10.17	In treatment works size band 5	-	nr		28	A1
E10.18	In treatment works size band 6	-	nr	1	13	A1
F10 19	Not In Use	l	1			

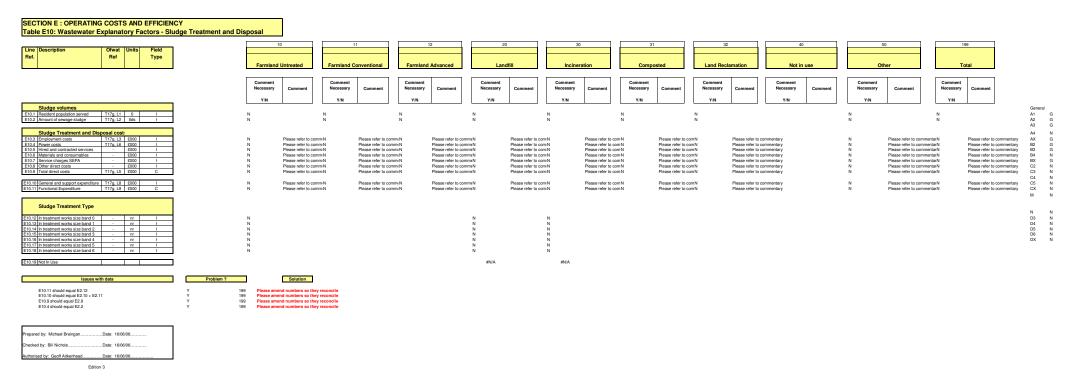
Own Sludge	CG	Sludge Centre	CG
0	A1	0	A1
0	A1	0	A1
0	A1	0	A1
0	A1	1	A1
2	A1	3	A1
0	A1	9	A1
2	A1	7	A1

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

Edition 3

Date : April 2006 Version: 9.0 Table 10 of 11





No. 10 of 11





# SECTION E : OPERATING COSTS AND EFFICIENCY

Table E11: Management and General

Line	Description	Ofwet	Heita	Ciold
Line	Description	Ofwat	Units	rieia
Ref.		Ref		Type
				71

10	
Water Service	
	CG

20	
Wastewater	
Service	
	CG

	Employee numbers			
E11.1	Direct operations	-	nr	ı
E11.2	Indirect operations (General and support)		nr	
E11.3	Other (incl hired and contracted)	1	nr	
E11.4	Total employee numbers	-	nr	С

899.827	
176.093	
275.053	
1350.973	B2

654.095 B2 112.095 B2	
112 095 B2	
191.336 B2	
957.526 B2	

	<b>Management and General Assets</b>			
E11.5	Number of Offices	-	nr	I
E11.6	Area of Offices	-	m <sup>2</sup>	ı
E11.7	Number of Laboratories	-	nr	I
E11.8	Area of Laboratories	-	m <sup>2</sup>	- 1
E11.9	Number of Depots	-	nr	-
	Area of Depots	-	m <sup>2</sup>	-
	Number of Workshops	-	nr	-
E11.12	Area of Workshops	-	m <sup>2</sup>	-
E11.13	Number of Control Centres	-	nr	-
E11.14	Area of Control Centres	-	m <sup>2</sup>	-
E11.15	Vehicles & Plant	-	£m	-
E11.16	% Coverage of Telemetry Systems	-	%	-
E11.17	Number of Telemetry Outstations	-	nr	-
E11.18	Information Systems: Personal Computers	-	nr	I
	Information Systems: Workstations	-	nr	I
E11.20	Information Systems: Mainframes	-	nr	

11	B3
15195	B2
	B3
280	
	B3
96288	
0	A1
	A1
	A1
716	
18.9	
	B3
1055	
3921	
435	
4	A2

11	B3
13474	B2
	B3
3930	B3
68	B3
96288	C3
0	A1
0	A1
1	A1
716	C3
21.8	B2
23	B3
2066	B3
3883	A2
435	A2
4	A2

Prepared by: Peter HaddowDate:	18/00/06
Frepared by. Feter naddowbate.	16/09/06
Checked by: Brian Strathie	18/09/06
Authorised by: Douglas Millican	18/09/06

Edition 2



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

Line Description Ofwat Units F Ref. Ref	Field Type
---	---------------

10		1		20
Wate	r Service		Wastewa	iter Service
mment		Ì	Comment	
essary	Comment		Necessary	Commen

Problem ?

Employee numbers				
E11.1	Direct operations	-	nr	- 1
E11.2	Indirect operations (General and support)		nr	- 1
E11.3	Other (incl hired and contracted)	-	nr	- 1
E11.4	Total employee numbers	-	nr	С

Management and General Assets				
E11.5	Number of Offices	-	nr	ı
E11.6	Area of Offices		m <sup>2</sup>	-
E11.7	Number of Laboratories		nr	
E11.8	Area of Laboratories		m <sup>2</sup>	-
E11.9	Number of Depots		nr	
E11.10	Area of Depots		m <sup>2</sup>	-
E11.11	Number of Workshops		nr	
E11.12	Area of Workshops		m <sup>2</sup>	-
E11.13	Number of Control Centres		nr	
E11.14	Area of Control Centres	-	m <sup>2</sup>	
E11.15	Vehicles & Plant	-	£m	
E11.16	% Coverage of Telemetry Systems	-	%	
E11.17	Number of Telemetry Outstations		nr	-
E11.18	Information Systems: Personal Computers		nr	
	Information Systems: Workstations		nr	-
E11.20	Information Systems: Mainframes	-	nr	

Issues with data

Y/N		Y/N					
						General	1
N		N				A1	G
N		N				A2	G
N		N				A3	G
N		N				A4	N
						AX	G
						B2	G
N		N				B3	G
N		N				B4	N
N		N				BX	G
N		N				C2	N
N		N				C3	N
N	CG has changed due to apport	iN	CG has changed due to	apportionment between water and w	vaste	C4	N
N		N				C5	N
N		N				CX	N
N		N				M	N
N	Where current records unavails	ıΝ	Where current records	unavailable, historic data has been us	sed re-number and area of premises	N	N
N		N				D3	N
N		N				D4	N
N		N				D5	N
N		N				D6	N
N N		N				DX	N
IN		IN					

Solution

Prepared by: Laura Wilson Date:	16/06/06
Checked by: Brian Strathie Date:	16/06/06
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