Appendix E - Water Supply - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																RESIDENTIAL BILLS									COST RECOVERY																	
		Type of Tariff	Access Charge (or Minimum) ($)			Charge Independent of Land Value?		Allowance (kL)		Usage Charge for>250kL/a kL/a (c/kL)		Operating Cost (OMA) (c/kL)				Typical Developer Charge ($/ET)			Typical Residential Bill ($/assessment)			Average Residential Bill ($/property)			Bill for Customer using 250kL/a ($/assessment)		OMA + Depreciation ($/property)			Economic Real Rate of Return (%)			Revenue from Usage Charges Residential (% of residential bills)		Non-residential (% of non-residential bills)		Connected Properties	
		(1)	(2)			(3)		(4)		(5)		(6)				(7)			(8)			(9)			(10)		(11)			(12)			(13)		(14)		(15)	
		2004/05	2002/03	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2000/01	2001/02	2002/03	2003/04	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2002/03	2003/04	01/02	02/03	03/04	01/02	02/03	03/04	02/03	03/04	02/03	03/04	02/03	03/04
88	Narrabri (Groundwater)	Two Part	153	153	153	✓	✓	Nil	Nil	33*	33*	17	17	16	20	2,200	2,200	2,200	395	395	338	332	418	324	236	236	256	242	248	4.8	6.0	5.1	26	27		20	4,100	4,170
89	Narrandera (Groundwater)	Two Part	236	236	236	✓	✓	Nil	Nil	47	51	23	28	30	32	1,000	1,000	*1,000*	516	523	520	489	560	475	351	364	277	315	324	7.8	7.6	4.3	53	55			2,000	2,030
90	Narromine (Groundwater)	Two Part	215	200	200	✓	✓	Nil	Nil	45*	50*	62	39	39	40	500	500	500	458	458	532	355	394	415	313	325	371	438	391	-0.9	-2.0	1.9	42	56			2,000	2,010
91	Nundle (Groundwater)	AMALGAMATED	480	497		✓	✓	350		142		74	121	108	76				480	497		525	527	529	480	480	912	687	594	-7.0	-2.7	-1.4	6	3			210	220
92	Oberon (Reticulator)	Two Part	185	188	91	✓	✓	Nil	Nil	94	97	53	56	48	37	1,100	1,100	*1,100*	416	426	287	353	365	338	413	334	538	588	356	1.9	2.2	3.0	53	49	85	84	1,200	1,250
93	Orange	Two Part	300	300	280	✓	✓	152	Nil	52	55	36	45	52	81	4,490	4,850	5,742	380	379	393	400	425	375	352	418	373	383	412	0.4	1.4	2.7	16			8	13,900	14,600
94	Parkes	Inclining Block	330	340	350	✓	✓	Nil	Nil	29*	30*	32	31	34	36	3,650	3,760	3,873	501	501	474	514	493	457	412	425	575	611	627	2.5	2.5	3.0	38	31	90	92	5,600	5,570
95	Parry (Groundwater)	AMALGAMATED	305	308		✓	✓	350		81*		45	52	64	88	*550*	*600*	612	308	308		430	409	422	308	308	388	416	420	1.3	0.9	1.2	9	10	38	54	1,800	1,820
96	Pristine Waters (Unfiltered)	AMALGAMATED	190	190		✓	✓	Nil		54			65	81	88	2,450	2,450	2,450	321	321		394	408	422	325	325	337	416	441	2.4	2.6	-0.9	23	24			1,900	1,850
97	Queanbeyan (Reticulator)	Inclining Block	216	222	230	✓	✓	Nil	Nil	110*	110*	65	79	114	101	780	780	*780*	433	433	377	378	436	354	432	497	420	449	318	-0.1	2.1	0.4	57	51			14,300	15,800
98	Quirindi (Groundwater)	AMALGAMATED	200	200		✓	✓	400		50		38	35	41	49			135	200	200		328	305	269	200	200	266	316	300	2.0	0.1	-0.2	19	30	8	26	1,300	1,350
99	Richmond Valley	Inclining Block	140	229	215	✓	✓	Nil	Nil	90*	80*	50	51	77	73	2,192	2,192	2,334	262	262	385	309	244	265	245	365	405	437	409	2.0	-0.4	2.0	44	48	81	78	6,500	6,520
100	Riverina (Groundwater)	Two Part	80	80	80	✓	✓	Nil	Nil	65	65	34	33	32	36	1,300	1,300	1,400	341	341	310	349	391	349	243	243	337	349	343	3.0	4.6	3.9	78	76	92	90	25,400	27,200
101	Rous (Bulk Supplier)				94	✓	✓	Nil	Nil		87	36	36	57	47	1,260	3,120	3,193									197	232	208	0.5	-0.8	1.4					33,100	35,800
102	Rylstone	AMALGAMATED	393	407		✓	✓	370		110		99	112	109	100	1,350	1,350	1,350	393	407		390	431	427	393	393	618	578	614	-4.5	-2.2	-3.2	6	3			1,300	1,290
103	Scone (Unfiltered)	AMALGAMATED	186	193		✓	✓	Nil		94*		48	37	37	44	2,670	2,670	2,670	514	514		398	491	452	428	428	325	381	371	4.4	5.7	5.6	58	53	76	72	2,600	2,640
104	Severn (Unfiltered)	AMALGAMATED	195	236		✓	✓	Nil		55		84	108	126	160				256	309		237	248	336	310	310	306	340	383	-4.1	-6.6	-3.4	25	23			190	190
105	Shoalhaven	Two Part	220	212	130	✓	✓	Nil	Nil	20*	60	33	46	44	43	2,240	2,300	2,370	254	254	268	268	261	267	262	280	284	281	275	3.5	4.0	4.3	19	22	85	87	42,400	42,900
106	Singleton	Two Part	194	194	194	✓	✓	Nil	Nil	77*	77*	62	53	50	58	2,520	2,600	2,662	494	494	425	530	547	417	387	387	434	425	424	5.3	7.8	9.8	57	56	88	51	5,300	5,510
107	Snowy River (Unfiltered)	Two Part	247	253	262	✓	✓	Nil	Nil	41	42	56	83	58	31	2,500	2,500	2,500	373	382	511	345	328	387	347	367	266	295	313	1.9	0.8	1.8	17	34			3,400	3,380
108	Sydney Water	Two Part	75	75	78	✓	✓	Nil	Nil	98	101	61	59	62	64	1,800	1,800		314	314	289				310	331	316	325	320		2.8	4.1					1,638,000	1,661,000
109	Tallaganda (Unfiltered)	AMALGAMATED	171	192		✓	✓	Nil		90		61	56	70	69	3,000	3,060	3,060	375	403		308	367	407	389	389	349	421	399	0.3	1.2	1.8	43	41			540	570
110	Tamworth	AMALGAMATED	128	128	138	✓	✓	Nil	Nil	65	70*	44	48	56	52	3,350	3,450	3,520	361	373	352	406	392	311	283	313	472	504	438	0.5	0.7	2.4	68	64	80	80	14,900	15,200
111	Temora	No WS																																							
112	Tenterfield	Two Part	259	267	278	✓	✓	Nil	Nil	68*	71*	104	83	122	98	1,500	1,500	1,500	397	397	423	415	411	322	437	456	484	554	513	-1.6	-3.2	1.6	29	31	87	56	1,700	1,920
113	Tumbarumba	Inclining Block	382	310	310	✓	✓	500	Nil	77*	55*	33	27	48	55	400	400	400	310	310	453	379	393	473	310	448	335	371	394	2.9	1.5	5.5	3	26	26	42	1,000	1,020
114	Tumut	Inclining Block	215	277	296	✓	✓	Nil	Nil	55*	59*	47	43	42	31	2,790	2,790	2,867	457	457	477	388	426	434	415	444	381	413	452	2.8	2.9	2.0	34	30	85	82	4,000	3,990
115	Tweed	Two Part	105	106	106	✓	✓	Nil	Nil	62	68	47	47	62	62	4,000	4,100	4,325	233	238	255	245	239	212	255	276	294	324	336	5.8	2.8	3.4	61	62	62	82	26,000	26,800
116	Uralla	Two Part	332	325	186	✓	✓	275	Nil	50*	70*	77	82	128	113	1,100		*350*	325	325	320	380	362	364	325	361	371	441	391	-0.4	-2.9	-0.4	7	8			1,300	1,300
116-A	Urana	No WS																																							
117	Wagga Wagga	No WS																																							
118	Wakool	600kL Allowance	245	245	685	×	✓	300	600	65*	65	19	35	34	33			300	382	393	685	571	490	559	245	685	568	533	582	0.1	2.3	2.2	3	3	15	15	1,300	1,280
119	Walcha	Two Part	313	324	321	✓	✓	Nil	Nil	87*	91*	111	110	134	128				465	465	468	463	480	497	543	548	435	493	502	0.4	-0.1	-0.3	39	38			830	830
120	Walgett (Dual Supply)	Unmetered	538	565	565		✓					40	33	33	46				538	565	565	634	702	715	538	565	*842*	*862*	861	-3.1	-2.0	-1.9	11	12			1,400	1,410
121	Warren (Dual Supply)	650kL Allowance	350	365	365	✓	✓	650	650	54*	60*	43	42	32	32				365	365	365	411	440	444	350	365	457	454	408	-0.6	0.2	0.6	21	20			930	970
122	Weddin	No WS																																							
123	Wellington	Inclining Block	480	420	380	×	✓	350	Nil	100*	65*	90	90	88	91	1,400	1,400	1,481	857	857	574	620	693	538	480	543	513	587	483	0.7	2.2	0.9	20	21			2,500	2,870
124	Wentworth (Dual Supply)	Inclining Block	485	485	300	✓	✓	250	Nil	210*	100*	22	28	24	32	2,120	2,120	2,375	485	485	524	577		653	485	550	726	726	832	0.3	1.9	0.8	38	38	16		1,500	1,600
125	Wingecarribee	Inclining Block	197	197	197	✓	✓	Nil	Nil	53*	53*	58	55	50	55	2,510	2,510	2,510	406	406	368	406	407	401	330	330	299	286	263	6.3	5.0	5.6	58	49	67	63	16,700	17,500
126	Wyong	Two Part	80	82	83	✓	✓	Nil	Nil	73	76	52	59	71	75	2,500	2,500	2,500	218	226	225	233	209	206	255	272	294	315	313	-2.9	7.2	4.1	67	68	72	73	54,700	56,400
127	Yallaroi (Groundwater)	AMALGAMATED	514	540		×	×	450		71		47	52	42	56				702	715		491	530	557	514	514	453	439	559	2.0	2.6	-0.1	7	5			730	720
128	Yarrowlumla (Groundwater)	AMALGAMATED	270	292			✓	280		70*		54	43	58		2,020	2,080	2,145	292	292		425	434		270	270	267	347		3.0	2.4		24				950	950
129	Yass Valley	Two Part	350	200	171	✓	✓	Nil	Nil	100	110*	83	75	88	96	1,500	1,500	8,283	350	401	396	461	389	410	350	446	439	426	421	1.3	0.8	2.8	16	52			2,600	2,880
130	Young (Reticulator)	265kL Allowance	390	400	420		✓	265	265	120	125	61	60	82	94	2,000	2,000	2,000	419	430	420	502	548	530	390	420	318	568	629	-1.3	1.9	1.6	33	30			3,800	3,910

Appendix E - Water Supply - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA															RESIDENTIAL BILLS									COST RECOVERY													
		Type of Tariff	Access Charge (or Minimum)			Charge Independent of Land Value?		Allowance		Usage Charge for>250kL/a kL/a		Operating Cost (OMA)				Typical Developer Charge				Typical Residential Bill			Average Residential Bill			Bill for Customer using 250kL/a		OMA + Depreciation			Economic Real Rate of Return			Revenue from Usage Charges Residential (% of residential bills)		Non-residential (% of non-residential bills)		Connected Properties
		(1)	(S) (2)			(3)		(kL) (4)		(c/kL) (5)		(c/kL) (6)				($/ET) (7)				($/assessment) (8)			($/property) (9)			($/assessment) (10)		($/property) (11)			(%) (12)			(13)		(14)		(15)
		2004/05	2002/03	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2000/01	2001/02	2002/03	2003/04	2002/03	2003/04	2004/05		2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	2002/03	2003/04	01/02	02/03	03/04	01/02	02/03	03/04	02/03	03/04	02/03	03/04	02/03	03/04
131	Albury City	Inclining Block	153	153	76		✓	Nil		44*		37	37	42	42	1,490	1,490	4,592		249	249	229	263	230	221	191	191	304	375	373	0.0	0.1	1.0	36	43			21,500
132	Clarence Valley	Two Part	218	191	175		✓	Nil		74*			63	88				4,140		286	280	335	279	269		321	321	442	452		4.6	12.1	8.9	39	48			20,900
133	Coffs Harbour	Two Part	175	184	193		✓	Nil		131			74	75	79	2,500	5,550	5,747		392	412	441	333	335	355	473	521	277	265	299	1.3	5.7	5.3	63	64			22,000
134	Corowa	Inclining Block	280	212	140		✓	Nil		10*		34	32	43	46			444		394	394	367	349	387	302	209	222	375	481	441	1.2	1.8	0.6	22	16			4,350
135	Glen Innes Severn	Inclining Block	175	175	88		✓	Nil		130*		76	96	80	97					332	336	345	353	339	357	370	405	455	359	371	-3.1	-1.4	-0.6	46	47			2,690
136	Goulburn Mulwaree	Inclining Block	225	225	242		✓	Nil		66*		67	59	88	124	1,360	3,849	5,160		391	391	339	527	446	408	394	412	403	431	455	5.9	3.2	1.1	49	43			9,690
137	Greater Hume	Inclining Block	200	200	425		×	400		90*		68	58	85	92	1,303	1,303	1,303		302	302	327	402	408	377	184	324	430	656	575	2.1	3.3	1.0	37	32			1,450
138	Gwydir	320kL Allowance	391	391	391		✓	320		175*		38	51	37						518	530	416	419	471		424	424	426	370		1.0	3.3		18	5			1,450
139	Liverpool Plains	300kL Allowance	174	174	174		✓	300		60*		41	42	53	64			3,390		250	250	174	369	351	331	250	250	313	356	342	1.8	0.6	0.6	6	30			2,220
140	Mid Western Regional	Two Part	265	265	265		✓	Nil		96*		72	69	75	81	2,798	2,798	2,798		643	646	533	419	519	501	598	598	435	453	450	1.5	3.0	2.0	44	44			6,300
141	Palerang	Inclining Block	130	130	130		✓	Nil		90*		57	48	62		2,392	2,452	2,493		323	334	343	381	408		315	315	298	375		2.0	1.9	1.8	31	41			1,520
142	Tamworth Regional	Inclining Block	138	138	138		✓	Nil		70*		46	51	60	58			3,520		360	369	346	406	398	330	295	320	467	491	439	0.0	0.7	1.7	58	54			18,200
143	Upper Hunter	Two Part	260	260	260		✓	Nil		119*		50	44	49	54	2,108	2,108	2,108		497	500	591	412	485	456	427	427	373	417	400	2.8	4.2	4.2	58	53			3,660
144	Upper Lachlan	Inclining Block	375	375	375		✓	Nil		90*		71	62	85	108			1,602		491	491	550	553	507	471	481	481	329	384	417	3.9	3.5	3.9	4	26			1,430
145	Warrumbungle	Inclining Block	175	175	88		✓	Nil		130*		72	78	108	86			775		426	426	550	442	451	454	415	339	538	598	535	-1.4	-2.9						3,000

Appendix F - Sewerage - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																RESIDENTIAL BILLS						COST RECOVERY							
		Access Charge (or Minimum) ($) (1)			Operating Cost (OMA) (c/kL) (2)				Charge Independent of Land Value ? Yes/No (3)		Non-residential Sewer Usage Charge (Not incl SDF) (c/kL) (3a)		Does Council Have Liquid Trade Waste Fees and Charges* ? (4)	Non-Res & Trade Waste Charges (% of Annual rates and charges) (5)	Non-Res & Trade Waste Volume (% of Sewage Collected) (6)	Typical Developer Charge ($/Equivalent Tenement (ET)) (7)			Typical Residential Bill ($/assessment) (8)			Average Residential Bill ($/property) (9)			OMA + Depreciation ($/property) (10)			Economic Real Rate of Return (%) (11)			Connected Properties (No.) (12)	
		2002/03	2003/04	2004/05	00/01	01/02	02/03	03/04	03/04	04/05	03/04	04/05	2004/05	2003/04	2003/04	02/03	03/04	04/05	02/03	03/04	04/05	01/02	02/03	03/04	01/02	02/03	03/04	01/02	02/03	03/04	02/03	03/04
1	Albury AMALGAMATED	255+usage	275+usage	345	86	97	107	108	✓	✓	182		✓	13	30	1,500	1,500	5,420	325	353	345	277	317	307	361	399	412	0.9	0.3	0.2	18,540	20,800
2	Armidale Dumaresq	255	255	264	97	100	119	133	✓	✓			×	15		1,240	1,240	1,240	255	255	264	223	242	239	359	432	441	-1.1	-1.0	-1.1	7,200	7,400
3	Ballina	330	330	330	91	108	95	109	✓	✓			✓	18		4,320	4,450	5,930	330	330	330	357	355	355	455	436	446	1.5	0.4	6.0	11,900	12,300
4	Balranald	153	325	325	38	45	32	49	✓	✓			×			680	680	680	153	325	325	371	404	409	332	307	364	0.6	1.0	0.5	730	760
5	Barraba AMALGAMATED	250	275		99	124	164	168	✓				×	9					250	275		247	263	309	289	350	406	-2.7	-7.4	-7.4	660	610
6	Bathurst Regional	339	351	351	76	82	91	88	×	✓	78		✓	17		1,750	1,750	1,750	339	351	351	306	315	334	366	377	369	2.5	3.1	5.2	12,400	12,400
7	Bega Valley	400	400	490	143	151	156	221	✓	✓	138	×		9		2,440	2,580	5,200	400	400	490	350	356	356	504	507	617	-0.6	-2.6	-2.4	9,900	10,000
8	Bellingen	423	438	438	107	106	137	133	✓	✓	102		✓	5		3,710	3,810	3,700	423	438	438	390	409	422	459	514	545	0.9	0.1	-0.3	2,700	2,780
9	Berrigan	284	290	310	176	191	110	132	✓	✓			✓	15				1,700	284	290	310	300	311	313	343	338	359	-1.1	-0.4	-0.8	2,900	2,950
10	Bingara AMALGAMATED	315	344		40	53			✓						18				315	344		260	267	*267*	536	564	*564*	-5.4	-6.2	*-6.2*	590	610
11	Bland	348	361	373	100	130	107	148	×	×			×			1,000	1,000	1,000	348	361	373	365	382	414	364	356	372	-0.3	0.3	0.7	1,700	1,730
12	Blayney	382	396	410	102	111	123	169	×	✓			✓	12	14	1,120	1,150	1,930	382	396	410	411	456	467	301	305	406	4.0	4.4	3.6	1,300	1,400
13	Bogan	346	358	370	54	83	40		×	×			×						346	358	370	403	417	432	344	294	297	2.0	4.3	4.9	970	970
14	Bombala	323	345	357	85	82	84	74	×	×			×	20	16	1,530	1,530	1,640	323	345	357	400	410	424	263	278	243	3.8	3.0	4.9	750	750
15	Boorowa	162	187	212	74	79	78		×	✓			×			500	500	*500*	162	187	212	142	154	178	559	328	287	-2.8	-2.4	-1.4	530	530
16	Bourke	434	449	459	84	63	77		✓	✓			×	7		460	460	460	434	449	459	524	517	501	391	441	551	1.5	-1.5	-10.4	1,300	1,280
17	Brewarrina	355	383	414	51	77	85	104	×	×			×	28					355	383	414	256	333	361	393	446	477	-0.2	-0.5	-3.7	480	470
18	Australian Inland	224	231	250	108	107	127	140	×	✓	80		✓	23					224	231	250		234	211	250	249	283	0.1	0.6	-0.3	9,600	9,500
19	Byron	429+usage	446+usage	464+usage	132	165	187	161	✓	✓	72		✓	18		5,810	5,980	6,170	560	592	572	516	558	670	551	614	676	4.2	2.1	2.6	9,600	9,600
20	Cabonne	520	539	577	110	121	153	121	×	×			×	10					520	539	577	431	441	455	301	337	301	3.0	2.4	3.8	2,200	2,240
21	Carrathool	146	151	200	160	149	130	163	✓	✓						520	536	550	146	151	200	114	129	143	203	186	280	-5.4	12.5	-5.0	840	840
22	Central Darling	385	390	350	36	167	75	44	✓	✓			×			400	400	400	385	390	350	289	292	289	573	304	216	-0.6	-0.4	-0.2	340	340
23	Central Tablelands	No SGE																													
24	Cobar	192	192	225	33	109	36	77	✓	✓			×	19		770	770	770	192	192	225	193	187	184	351	270	215	-5.3	-2.4	-0.2	1,700	1,660
24-A	Cobar WB	No SGE																													
25	Coffs Harbour AMALGAMATED	521	537	553	85	100	103	113	✓	✓			✓	7	24	3,780	4,730	4,910	521	537	553	584	575	587	446	460	480	5.0	6.5	4.7	19,400	20,000
26	Coolah AMALGAMATED	257	266		50	67	74	68	✓				×	6				400	257	266		249	257	269	223	210	249	2.2	6.2	0.6	780	780
27	Coolamon	235	240	240	251	145	61	190	✓	✓			×	17					235	240	240	285	284	300	262	282	312	3.2	0.8	2.3	810	810
28	Cooma-Monaro	431	453	485	115	126	178	233	✓	✓			✓	19		1,750	1,870	1,910	431	453	485	403	424	445	457	504	545	0.3	0.5	0.2	3,100	3,050
29	Coonabarabran AMALGAMATED	117	330	345	84	106	131		✓	✓			×			829	830	830	431	330	345	397	379	382	522	554	604	-1.0	-1.8	*-1.8*	1,500	1,540
30	Coonamble	240	244	244	42	76	84	81	×	×			×	9	1				240	244	244	258	282	292	391	396	400	-2.7	-3.4	-3.5	1,400	1,330
31	Cootamundra	165	173	208	37	38	42		×	×			×	8		700	700	700	165	173	208	178	195	206	323	347	360	-2.2	-5.3	-8.8	2,500	2,620
32	Copmanhurst AMALGAMATED	600	600	600	226	176	186	180	✓				×			3,850	3,850	3,850	600	600	600	613	588	619	470	480	506	5.7	20.0	6.9	450	460
33	Corowa AMALGAMATED	270	270	290	82	86	101	111	✓	✓			×	16		560	560	530	270	270	290	269	308	312	315	310	348	0.0	0.5	-0.4	3,300	3,270
34	Cowra	255	265	290	58	68	72	81	✓	✓			✓	28		2,500	2,500	2,650	255	265	290	264	273	279	256	249	268	3.2	4.2	5.9	3,300	3,390
35	Crookwell AMALGAMATED	428	441		42	69	122	107	×				×		17	490	510	530	428	441		382	395	413	305	444	439	1.1	-0.5	-0.1	1,000	1,040
36	Culcairn AMALGAMATED	226	236		66	66	82	85	✓				×	17	8	2,130	2,130	2,130	226	236		182	182	186	254	255	260	-1.3	-1.2	-1.2	1,300	1,310
37	Deniliquin	398	418	439	61	71	82	105	✓	✓			×		25	600	600	600	398	418	439	363	383	404	393	424	409	0.0	0.0	0.8	2,900	2,930
38	Dubbo	403	403	403	106	106	85	179	×	×			✓		16	2,500	2,430	3,470	403	403	403	400	388	394	399	402	529	1.6	2.1	2.4	13,600	13,800
39	Dungog	326	342	360	21	83	92	121	✓	✓			×	15		2,870	2,870	2,870	326	342	360	378	400	421	319	351	361	5.6	5.7	12.8	1,000	1,050
40	Eurobodalla	450	450	470	148	131	164	203	✓	✓			✓	8		1,980	6,000	6,000	450	450	470	436	431	421	409	461	490	2.2	3.4	4.3	15,800	16,500
41	Fish River WS	No SGE																													
42	Forbes	440	456	472	53	57	81	110	×	×			✓		12	650	650	650	440	456	472	383	384	378	242	285	310	9.2	7.7	5.4	3,100	3,200
43	Gilgandra	205	256	295	37	21	69	61	✓	✓	30		✓	13	12				205	256	295	172	180	230	260	276	267	-3.1	-4.0	-0.9	1,300	1,330

NOTE: Bills and Charges are in Dollars of the Year

* For liquid trade waste discharged to the sewerage system

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Appendix F - Sewerage - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																RESIDENTIAL BILLS						COST RECOVERY								
		Access Charge (or Minimum) ($) (1)			Operating Cost (OMA) (c/kL) (2)				Charge Independent of Land Value ? Yes/No (3)		Non-residential Sewer Usage Charge (Not incl SDF) (c/kL) (3a)		Does Council Have Liquid Trade Waste Fees and Charges* ? (4)	Non-Res & Trade Waste Charges (% of Annual rates and charges) (5)	Non-Res & Trade Waste Volume (% of Sewage Collected) (6)	Typical Developer Charge ($/Equivalent Tenement (ET)) (7)			Typical Residential Bill ($/assessment) (8)			Average Residential Bill ($/property) (9)			OMA + Depreciation ($/property) (10)			Economic Real Rate of Return (%) (11)			Connected Properties (No.) (12)	
		2002/03	2003/04	2004/05	00/01	01/02	02/03	03/04	03/04	04/05	03/04	04/05	2004/05	2003/04	2003/04	02/03	03/04	04/05	02/03	03/04	04/05	01/02	02/03	03/04	01/02	02/03	03/04	01/02	02/03	03/04	02/03	03/04
44	Glen Innes AMALGAMATED	265	275	260	37	59	99	63	✓	✓			×						265	275	260	270	284	297	173	189	193	1.2	4.2	4.9	2,600	2,640
45	Gloucester	357	370	325	81	126	139	176	✓	✓			✓			1,705	1,770	5,550	357	370	325	319	352	371	314	373	434	1.6	5.1	0.9	1,300	1,300
46	Goldenfields (Bulk Supplier)	No SGE																														
47	Goldenfields (Reticulator)	No SGE																														
48	Goldenfields (Combined)	No SGE																														
49	Gosford	340	347	352	81	86	99	103	✓	✓	76		✓	14	16	3,320		1,800	340	347	352	316	315	324	312	336	354	2.6	2.1	1.5	60,300	64,000
50	Goulburn AMALGAMATED	307	325	246	95	104	136	138	×	✓			✓	21	30	950	4,090	4,600	307	325	246	428	358	380	349	369	337	3.4	3.2	4.5	8,700	9,420
51	Grafton AMALGAMATED	380	380	393	68	82	105		✓				✓						380	380	393	354	326	*326*	356	354	*354*	0.7	0.6	*0.6*	7,900	7,900
52	Griffith	261	270	284	77	111	120	100	×				✓	29	39	1,820	2,100	2,110	261	270	284	489	422	421	513	568	509	1.0	0.5	0.7	7,200	7,230
53	Gundagai	216	227	195	169	194	197	194	×				✓		14				216	227	195	190	210	270	237	244	267	-1.6	-0.3	0.5	960	870
54	Gunnedah	223	230	237	43	45	58	71	✓	✓			×	5		1,950	1,950	1,950	223	230	237	218	225	217	184	186	191	2.0	2.0	1.7	3,700	3,970
55	Gunning AMALGAMATED	210	230		237	275	315	449	×									2,550	210	230		480	511	525	394	406	361	2.0	2.3	3.5	220	220
56	Guyra	500	500	500	45	80	75	140	✓	✓			×	18					500	500	500	452	519	517	418	414	463	1.3	1.8	1.2	720	730
57	Harden	273	301	331	106	112	110	110	✓	✓			×	8					273	301	331	194	260	287	345	341	340	-10.3	-7.0	-1.8	940	940
58	Hastings	478	495	395	70	86	62	112	✓	✓	60		✓	6		2,800	2,800	2,800	478	495	395	453	463	450	366	390	411	5.8	6.0	5.3	23,200	24,000
58-A	Hawkesbury	346	359	371		98	96	106	✓	✓	155		✓	23	10		5,590	5,590	346	359	371	318	347	363	417	463	522	0.7	0.0	-0.2	6,700	7,270
59	Hay	345	354	363	79	90	82	85	✓	✓				13					345	354	363	354	355	366	460	441	423	-2.8	-2.1	-1.2	1,200	1,230
60	Holbrook AMALGAMATED	181	188		228	225	241		×										181	188		379	414	429	372	374	364	2.5	1.9	2.7	650	650
61	Hume AMALGAMATED	200	200		142	129	148	157	×				×			2,930	2,930	2,930	200	200		279	260	243	328	350	360	-0.5	-0.9	-0.7	1,200	1,290
62	Hunter Water	265+usage	279+usage	288+usage	46	55	51	55	✓	✓	42		✓			3,500	3,500		309	323	332				255	251		3.1	3.7	*3.7*	190,100	196,000
63	Inverell	275	285	298	114	104	105	115	✓	✓			✓	7	7				275	285	298	249	263	259	324	314	314	-4.3	-3.1	-3.8	4,400	4,600
64	Jerilderie	460	475	478	50	84	125	118	×	×						600	650	900	460	475	478	572	257	269	258	334	322	27.3	5.6	7.1	410	410
65	Junee	275	283	283	143	124	118	138	✓	✓			✓	14		550	550	550	275	283	283	282	272	289	276	270	325	0.6	2.2	0.2	1,500	1,490
66	Kempsey	470	482	499	88	124	155	153	✓	✓				26		2,770	4,320	4,530	470	482	499	411	437	459	473	484	486	2.3	2.1	9.6	8,300	8,430
67	Kyogle	266+usage	412	474	148	183	235	253	✓	✓	82		✓	15		1,000	1,000	1,000	399	412	474	301	342	368	426	451	474	-3.1	-1.6	-1.3	1,500	1,490
68	Lachlan	300	300	300	45	64	53	65	✓	✓			×	18					300	300	300	245	270	270	317	287	307	-0.4	1.0	0.3	2,100	2,100
69	Leeton	83	84	125	48	55	76	75	×	×			✓		43	3,000	3,100	3,150	83	84	125	570	407	492	396	374	371	2.5	9.7	4.7	2,900	2,940
70	Lismore	334	367	412	85	86	87	93	✓	✓			✓	26		4,260	4,370	4,460	334	367	412	296	306	341	383	373	411	1.0	2.3	2.7	11,700	11,700
71	Lithgow	293	303	313	103	93	98	87	×	×			✓		30	1,780	1,780	1,790	293	303	313	241	256	267	288	290	254	-3.0	-1.7	3.0	7,600	7,640
72	Lockhart	121	121	125	99	121	115	107	×	×			×	11					121	121	125	345	364	370	412	371	343	0.0	0.1	0.2	740	770
73	North Coast Water	No SGE																														
74	Maclean AMALGAMATED	426	437	437	101	108	126	139	✓				×	6	13	3,180	3,330	8,000	426	437	437	420	403	444	337	336	390	4.4	5.0	12.8	4,800	4,610
75	Manilla AMALGAMATED	330	330		99	129	127		✓				×			1,300	1,300	1,430	330	330		457	490	455	460	544	664	0.4	-0.4	-4.4	980	1,090
76	Merriwa AMALGAMATED	270	280		119	160	180	203	✓				×	16		600	600	1,000	270	280		263	260	265	463	399	341	-21.1	-15.6	-8.1	450	470
77	MidCoast (Manning)	460	480	480					✓	✓			✓			2,700	3,200	3,200	460	480	480											
78	MidCoast (Great Lakes)	460	480	520					✓	✓			✓			4,300	4,500	4,500	460	480	520											
79	MidCoast (Combined)								✓		135		✓	14	18				460	480	500	464	443	479	536	510	546	3.2	3.8	-0.2	29,400	29,400
80	Moree Plains	480	530	580	110	130	137	104	✓	✓	100		✓		40	700	700	3,000	480	530	580	449	488	501	491	492	511	0.2	-0.6	1.6	4,200	4,150
81	Mudgee AMALGAMATED	369	380		72	68	105	121	✓				×		10	1,800	1,850	1,850	369	380		330	340	367	340	354	389	1.7	2.3	1.5	4,700	4,790
82	Mulwaree AMALGAMATED	395	409		101	113	104		×				×			2,500	2,500	2,500	395	409		386	384	438	308	288	330	3.9	5.4	6.1	310	310
83	Murray	308	318	318	61	75	83	75	✓	✓			✓	11		700	700	700	308	318	318	365	365	399	362	346	364	1.3	1.9	2.9	2,100	2,080
84	Murrumbidgee	346	346	346	70	64	123	58	×	×			×	6		1,000	1,000	1,000	346	346	346	262	265	260	149	199	183	6.1	2.7	3.2	690	710
85	Murrurundi AMALGAMATED	322	334		27	36	44	42	✓				×			900	930	930	322	334		276	275	288	295	250	245	0.3	0.2	1.1	570	570
86	Muswellbrook	364	382	395	99	97	102	99	✓	✓			✓		43	4,290	4,290	4,290	364	382	395	381	411	422	400	425	403	-0.4	0.8	2.9	4,500	4,590

Appendix F - Sewerage - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																RESIDENTIAL BILLS						COST RECOVERY							
		Access Charge (or Minimum) ($) (1)			Operating Cost (OMA) (c/kL) (2)				Charge Independent of Land Value ? Yes/No (3)		Non-residential Sewer Usage Charge (Not incl SDF) (c/kL) (3a)		Does Council Have Liquid Trade Waste Fees and Charges* ? (4)	Non-Res & Trade Waste Charges (% of Annual rates and charges) (5)	Non-Res & Trade Waste Volume (% of Sewage Collected) (6)	Typical Developer Charge ($/Equivalent Tenement (ET)) (7)			Typical Residential Bill ($/assessment) (8)			Average Residential Bill ($/property) (9)			OMA + Depreciation ($/property) (10)			Economic Real Rate of Return (%) (11)			Connected Properties (No.) (12)	
		2002/03	2003/04	2004/05	00/01	01/02	02/03	03/04	03/04	04/05	03/04	04/05	2004/05	2003/04	2003/04	02/03	03/04	04/05	02/03	03/04	04/05	01/02	02/03	03/04	01/02	02/03	03/04	01/02	02/03	03/04	02/03	03/04
87	Nambucca	394	360	360	82	94	95	106	✓	✓			×	8		1,830	1,950	3,550	394	360	360	347	334	309	372	368	408	2.3	3.4	2.6	5,700	5,750
88	Narrabri	296	296	316	73	81	298	65	✓	✓			✓	18		1,880	1,880	1,880	296	296	316	301	289	264	405	384	383	-1.2	-0.6	-1.3	3,600	3,630
89	Narrandera	318	330	350	70	58	70	92	×	×				9	12				318	330	350	355	395	454	308	332	371	6.9	1.8	1.8	1,700	1,700
90	Narromine	378	417	440	163	173	171		✓	✓				7		940	940	940	378	417	440	425	410	408	510	471	447	-2.0	-1.7	-0.8	2,000	2,080
91	Nundle	No SGE																													
92	Oberon	237	269	278	74	93	125		×	×			✓	27		1,200	1,200	1,270	237	269	278	266	274	271	401	464	420	-0.7	-3.2	-2.0	1,200	1,200
93	Orange	255	260	273	34	44	59	65	✓	✓	128		✓	5		2,800	2,900	3,170	255	260	273	260	251	272	367	388	437	-0.5	-0.8	0.4	13,900	14,100
94	Parkes	180	185	191	70	56	55	53	×	×				17		3,750	3,860	3,970	180	185	191	186	209	210	203	225	210	0.8	1.7	6.5	4,300	4,610
95	Parry AMALGAMATED	330	342		64	67	63	126	✓				×	7	20	550	600	610	330	342		409	422	425	399	392	402	0.6	1.2	1.3	1,100	1,150
96	Pristine Waters AMALGAMATED	650	660	660	295	556	539	248	✓				×			1,700	6,500	6,500	650	660	660	790	801	800	427	807	711	2.9	0.0	5.9	540	*540*
97	Queanbeyan	277	283	294	59	68	86	106	×	✓	50				27	1,080	1,080	1,080	277	283	294	326	315	334	272	303	304	6.5	5.1	4.3	14,800	15,800
98	Quirindi AMALGAMATED	283	289		70	76	86	73	✓				×						283	289		263	271	268	288	311	272	0.6	-0.1	0.6	1,100	1,170
99	Richmond Valley	495	495	418	80	99	131	109	✓	✓	138		×			4,530	4,680	4,820	495	495	418	412	421	431	367	438	434	3.5	7.0	3.2	6,000	6,080
100	Riverina	No SGE																													
101	Rous	No SGE																													
102	Rylstone AMALGAMATED	414	429		106	148	105	172	✓				×	11					414	429		414	420	394	531	524	519	-4.5	-3.5	-4.1	950	1,040
103	Scone AMALGAMATED	299	309		62	67	81	84	×				×	9		2,170	2,230	2,230	299	309		294	309	322	361	367	379	-1.2	-0.3	1.9	2,700	2,680
104	Severn AMALGAMATED	484	474		106	174	227	227	✓				×	28	15				484	474		424	349	365	237	275	281	6.3	4.8	5.2	200	210
105	Shoalhaven	515	515	510	148	149	164	172	✓	✓	80		✓	8	24	1,840	1,890	1,950	515	515	510	520	510	502	418	437	449	5.1	4.6	4.1	36,500	35,800
106	Singleton	292	300	307	76	74	83	81	✓	✓			✓	17		1,150	1,270	1,300	292	300	307	301	313	307	341	354	349	3.1	2.7	5.2	4,700	4,690
107	Snowy River	298+usage	306+usage	316+usage	132	163	149	140	✓	✓	56	×				2,500	2,500	2,500	333	341	525	419	412	383	332	334	323	2.1	3.8	3.1	3,300	3,290
108	Sydney Water	328	339	347	69	84	80	88	✓	✓	106		✓			3,900	3,900		328	339	347				353	360		3.5	2.8	*2.8*	1,592,000	1,611,000
109	Tallaganda AMALGAMATED	252	283		131	138	187	200	✓				×			3,000	3,230	3,500	252	283		290	264	294	315	372	396	-0.5	-2.3	-1.9	480	490
110	Tamworth AMALGAMATED	396	396	396	98	93	115	89	✓	✓			✓	22	26	1,400	1,440	1,470	396	396	396	409	387	371	415	497	418	2.2	1.3	1.9	14,100	14,500
111	Temora	149	156	170	55	60	62	86	✓	✓			×	6	3				149	156	170	140	119	131	200	203	212	-2.3	-2.7	-0.2	2,000	1,890
112	Tenterfield	297	312	325	121	173	182	182	✓	✓			×	21		1,500	1,500	1,500	297	312	325	328	331	346	462	484	509	-2.0	-2.2	1.9	1,400	1,450
113	Tumbarumba	330	342	354	78	59	82	69	✓	✓			×	13			420	430	330	342	354	268	305	312	427	442	423	-4.7	-5.4	-4.0	880	900
114	Tumut	455	470	488	73	87	111	105	✓	✓			✓	25		3,400	3,400	3,610	455	470	488	377	429	437	387	479	510	1.7	1.3	1.5	3,600	3,590
115	Tweed	419	430	435	67	81	79	96	✓	✓	67		✓		23	3,280	3,280	3,490	419	430	435	439	410	435	450	395	435	6.9	5.1	5.3	24,600	25,000
116	Uralla	412	412	400	136	152	181	167	✓	✓	100		✓		6				412	412	400	376	394	394	387	426	408	-0.2	-1.8	0.0	990	990
116-A	Urana	180	180	189	72	123	76		✓	✓			×			4,100	4,100	4,100	180	180	189	467	460	*460*	495	404	*404*	0.1	1.0	0.0	290	290
117	Wagga Wagga	260	270	279	43	51	46	53	✓	✓			✓	14	32	1,290	1,290	1,450	260	270	279	209	220	248	166	177	192	8.7	11.9	6.3	22,100	22,100
118	Wakool	410	410	420	104	303	190		×	✓			×	24					410	410	420	557	438	448	376	420	407	2.8	3.2	1.6	920	920
119	Walcha	258	267	292	69	80	120	81	✓	✓			×		9				258	267	292	269	246	253	325	390	323	-1.1	-3.3	-3.1	760	760
120	Walgett	261	274	274	58	37	54	58	✓	✓			×	8					261	274	274	331	340	361	394	450	466	-1.8	-2.7	-2.7	1,400	1,430
121	Warren	465	465	465	69	74	83	100	✓	✓			✓	22					465	465	465	434	454	480	342	412	387	4.2	3.8	4.7	820	820
122	Weddin	147	152	157	63	80	75	61	✓	✓			×	18					147	152	157	112	122	117	281	281	251	-14.0	-13.8	-12.5	900	950
123	Wellington	390	430	450	87	89	118	138	×	×			×	12		1,000	1,850	1,910	390	430	450	487	435	469	415	346	364	0.2	3.9	5.4	2,300	2,360
124	Wentworth	350	350	370	62	64	75	68	✓	✓			×	12	8	1,920	2,200	*2,200*	350	350	370	364	348	396	383	471	463	0.5	0.5	0.7	1,500	1,480
125	Wingecarribee	387+usage	402+usage	402+usage	99	92	105	124	✓	✓	40		✓	12		3,790	4,100	4,300	472	487	488	499	437	601	437	446	456	3.1	0.9	1.9	12,400	13,000
126	Wyong	347	354	359	65	74	93	115	✓	✓	64		✓	10		1,847	1,900	2,000	347	354	359	337	333	335	342	396	351	6.1	0.8	1.1	53,100	55,300
127	Yallaroi AMALGAMATED	292	303		42	51	59		×					6	6				292	303		266	262	282	364	395	465	-2.6	-2.9	-4.3	600	600
128	Yarrowlumla AMALGAMATED	585	585		148	135	167		✓							1,640	1,690	1,740	585	585		536	527	*527*	423	451	*451*	3.3	4.1	*4.1*	990	990
129	Yass Valley	328	355	370	122	118	133	113	×	✓			×			1,570	2,500	4,060	328	355	370	429	388	433	307	347	349	6.7	6.7	11.5	1,900	1,990
130	Young	230	280	315	39	52	57	54	✓	✓			✓	11		700	700	700	230	280	315	228	221	273	153	158	150	4.5	6.8	11.4	3,300	3,380

Appendix F - Sewerage - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																RESIDENTIAL BILLS						COST RECOVERY							
		Access Charge (or Minimum) ($) (1)			Operating Cost (OMA) (c/kL) (2)				Charge Independent of Land Value ? Yes/No (3)		Non-residential Sewer Usage Charge (Not incl SDF) (c/kL) (3a)		Does Council Have Liquid Trade Waste Fees and Charges* ? (4)	Non-Res & Trade Waste Charges (% of Annual rates and charges) (5)	Non-Res & Trade Waste Volume (% of Sewage Collected) (6)	Typical Developer Charge ($/Equivalent Tenement (ET)) (7)			Typical Residential Bill ($/assessment) (8)			Average Residential Bill ($/property) (9)			OMA + Depreciation ($/property) (10)			Economic Real Rate of Return (%) (11)			Connected Properties (No.) (12)	
		2002/03	2003/04	2004/05	00/01	01/02	02/03	03/04	03/04	04/05	03/04	04/05	2004/05	2003/04	2003/04	02/03	03/04	04/05	02/03	03/04	04/05	01/02	02/03	03/04	01/02	02/03	03/04	01/02	02/03	03/04	02/03	03/04
131	Albury City	255+usage	275+usage	345	86	97	107	108		✓		182	✓	13	30	1,500	1,500	5,420	325	353	345	277	317	307	361	399	412	0.9	0.3	0.2		20,800
132	Clarence Valley	407	410	419	88	103	123	*123*		✓			✓			3,180	3,330	8,000	407	410	419	392	368	382	355	361	377	2.1	2.6	4.8		13,200
133	Coffs Harbour	521	537	553	87	105	108	115		✓			✓			3,750	4,750	4,930	521	537	553	586	578	589	446	463	483	5.0	6.5	4.8		20,300
134	Corowa	270	270	290	94	95	111	121		✓			✓	16		1,290	1,290	1,270	270	270	290	271	298	298	318	319	351	-0.1	0.2	-0.5		4,200
135	Glen Innes Severn	265	275	260	41	67	108	74		✓									265	275	260	281	288	302	177	195	200	1.6	4.2	5.0		2,810
136	Goulburn Mulwaree	307	325	444	95	104	136			✓		166	✓	21	30	1,000	4,040	4,540	307	325	444	426	359	382	348	367	336	3.4	3.3	4.6		9,710
137	Greater Hume	200	200	200	124	121	137			×						2,930	2,930	2,930	200	200	200	253	259	263	299	304	305	-0.1	-0.3	-0.1		2,310
138	Gwydir	315	344	393	41	52	29	44		✓					12				315	344	393	263	265	275	452	481	515	-4.0	-4.6	-5.3		1,210
139	Liverpool Plains	223	230	299	66	71	76	88		✓						550	600	610	223	230	299	312	321	321	325	334	313	0.6	0.4	0.8		1,970
140	Mid Western Regional	369	380	396	78	83	105	130		✓						1,800	1,850	1,850	369	380	396	345	355	372	374	385	412	0.5	1.3	0.5		5,800
141	Palerang	585	585	595	142	136	173	*173*		✓						2,090	2,200	2,320	585	585	595	454	440	450	388	425	433	2.1	2.0	2.1		1,480
142	Tamworth Regional	396	396	396	98	97	117			✓			✓	22	26	1,400	1,440	1,470	396	396	396	410	394	379	417	496	439	1.9	0.8	1.1		16,800
143	Upper Hunter	299	309	340	65	75	89	94		✓		60				1,800	1,850	1,900	299	309	340	287	298	310	366	356	356	-3.6	-2.2	0.5		3,630
144	Upper Lachlan	328	355	469	77	106	156	169		×						590	590	900	328	355	469	400	416	433	321	437	425	1.3	0.0	0.6		1,220
145	Warrumbungle	117	330	345	73	93	112			×						590	590	900	117	330	345	346	338	344	421	437	483	0.1	0.9	-1.0		2,280

APPENDIX G – Council Amalgamations

In July 2003 there were 126 LWUs providing water supply and sewerage in non-metropolitan NSW. However, during 2003/04 there were a number of amalgamations resulting in a reduction in the number of LWUs to 107 in June 2004. These amalgamations are listed on page ii of this report.

Seven of the amalgamations involved only minor adjustments to LWU boundaries (with a name change in several cases) but the number of water supply and sewerage assessments remained unchanged (eg. Bathurst incorporated Evans Council and was renamed Bathurst Regional Council, but involved no additional water supply or sewerage assessments). For these cases, the reported water supply and sewerage results are unchanged except that the LWU has been renamed. These 7 LWUs are shown in Table G1 below.

Table G1 – LWUs with no Change in Water and Sewerage Businesses

New Council	Old Council
■ Bathurst Regional	Bathurst, Evans
■ Cooma-Monaro	Cooma-Monaro, Yarrowlumla (part)
■ City of Lithgow	Lithgow, Rylstone (part)
■ Queanbeyan	Queanbeyan, Yarrowlumla (part)
■ Richmond Valley	Richmond Valley, Copmanhurst (part)
■ Tumut	Tumut, Yarrowlumla (part)
■ Yass Valley	Yass (part), Yarrowlumla (part), Gunning (part)

There were 15 amalgamations where LWUs were combined or where alterations to boundaries significantly altered the number of assessments. These 15 amalgamated LWUs are shown in Table G2 overleaf.

The constituent LWUs for these amalgamations have been noted in Appendices C to F as "AMALGAMATED" and the 2003/04 performance of each constituent LWU has continued to be reported in these appendices. The performance of these amalgamated LWUs has been calculated by aggregating the reported data from their constituent LWUs and is reported as utility numbers 131 to 145 at the end of each of these appendices.

As noted on page ii, for clarity, Figure 1 reports the results for the amalgamated LWUs, but not those of their constituent LWUs over the last 3 years.

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APPENDIX G – Council Amalgamations

Table G2 – Amalgamated LWUs

New Council	Old Council
■ Albury City	Albury, Hume (part)
■ Clarence Valley	Copmanhurst, Grafton City, Maclean, Pristine Waters (part), North Coast Water
■ Coffs Harbour	Coffs Harbour, Pristine Waters (part)
■ Corowa	Corowa, Hume (part)
■ Glen Innes Severn	Glen Innes, Severn
■ Goulburn Mulwaree	Goulburn City, Mulwaree (part)
■ Greater Hume	Culcairn, Holbrook, Hume (part)
■ Gwydir	Barraba (part), Bingarra, Yallaroi
■ Liverpool Plains	Quirindi, Murrurundi (part), Parry (part), Gunnedah (part)
■ Mid-Western Regional	Mudgee, Merriwa (part), Rylstone (part)
■ Palerang	Gunning (part), Mulwaree (part), Tallaganda, Yarrowlumla (part)
■ Tamworth Regional	Tamworth, Manilla, Barraba, Nundle, Parry (part)
■ Upper Hunter	Scone, Merriwa (part), Murrurundi (part)
■ Upper Lachlan	Yass (part), Crookwell, Mulwaree (part), Gunning (part)
■ Warrumbungle	Coonabarabran, Coolah

The basis for aggregating the results of amalgamated LWUs is generally on the percentage of assessments in each constituent LWU included in the new amalgamated LWU. This percentage has then been applied to the aggregate number of connected properties in order to determine the ratio to be applied to each constituent LWU to determine the appropriate performance indicator.

The percentage of the water supply assessments of each constituent in the amalgamated LWU is shown in column 1 of Table G3 on the facing page. Eg. column 1 shows that Albury City involves all of the (21,104) connected properties of the former Albury Council and 16% of the (2,182) connected properties of the former Hume Council.

Column 2 shows that water supply performance indicators for Albury City involving connected properties may be computed by summing 98.4% (21,104/(21,104 + 0.16 x 2,182) of the indicator for the former Albury Council and 1.6% (0.16 x 2,182/(21,104 + 0.16 x 2,182) of the indicator for the former Hume Council.

Similarly, as the length of water supply mains in the former Albury Council and in the segment of the former Hume Council were 487 km and 46 km respectively, column 3 shows that water supply performance indicators for Albury City involving length of mains may be computed summing 91.4% (487/(487 + 46)) of the indicator for the former Albury Council and 8.6% (46/(487 + 46)) of the indicator for the former Hume Council.

The corresponding results for sewerage are shown in columns 4 to 6. Column 4 indicates that 100% of the 20,758 sewerage connected properties in the former Albury Council are included in Albury City, together with 3% of the 1,286 connected properties of the former Hume Council.

Column 5 shows that sewerage performance indicators for Albury City involving connected properties may be computed by summing 99.8% (20,758/(20,758 + 0.03 x 1,286) of the indicator for the former Albury Council and 0.2% (0.03 x 1,286/(20,758 + 0.03 x 1,286) of the indicator for the former Hume Council.

Similarly, as the length of sewerage mains in the former Albury Council and in the segment of the former Hume Council were 442 km and 4 km respectively, column 6 shows that sewerage performance indicators for Albury City involving length of mains may be computed summing 99.1% (442/(442 + 4) of the indicator for the former Albury Council and 0.9% (4/(442 + 4)) of the indicator for the former Hume Council.

For water supply or sewerage charges, those of the largest constituent LWU have been adopted for the amalgamated LWU.

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APPENDIX G – Council Amalgamations

Table G3 - Amalgamations - Basis for Calculation of Performance Indicators

AMALGAMATED LWU	CONSTITUENT LWUs	WATER SUPPLY			SEWERAGE		
		% of Constituent LWU in New LWU (1) (based on Assessments)	% to be Applied for PIs Involving Connected Properties (2)	% to be Applied for PIs Involving Length of Main (3)	% of Constituent LWU in New LWU (4) (based on Assessments)	% to be Applied for PIs Involving Connected Properties (5)	% to be Applied for PIs Involving Length of Main (6)
131 Albury City	*ALBURY*	100%	*98.4%*	*91.4%*	100%	*99.8%*	*99.1%*
	HUME	16%	*1.6%*	*8.6%*	3%	*0.2%*	*0.9%*
132 Clarence Valley	*GRAFTON*	100%	*40.9%*	*13.7%*	100%	*63.5%*	*56.0%*
	MACLEAN	0%			100%	*31.7%*	*36.0%*
	COPMANHURST	0%			100%	*3.1%*	*5.0%*
	PRISTINE WATERS	100%	*8.9%*	*8.2%*	45%	*1.7%*	*3.0%*
	NORTH COAST WATER	100%	*50.2%*	*78.1%*	0%		
133 Coffs Harbour	*COFFS HARBOUR*	100%	*100.0%*	*100.0%*	100%	*98.5%*	*98.0%*
	PRISTINE WATERS	0%			55%	*1.5%*	*2.0%*
134 Corowa	*COROWA*	100%	*78.5%*	*73.6%*	100%	*78.6%*	*70.0%*
	HUME	43%	*21.5%*	*26.4%*	69%	*21.4%*	*30.0%*
135 Glen Innes Severn	*GLEN INNES*	100%	*93.1%*	*90.8%*	100%	*92.8%*	*92.0%*
	SEVERN	100%	*6.9%*	*9.2%*	100%	*7.2%*	*8.0%*
136 Goulburn Mulwaree	*GOULBURN*	100%	*95.0%*	*87.7%*	100%	*97.0%*	*97.0%*
	MULWAREE	100%	*5.0%*	*12.3%*	100%	*3.0%*	*3.0%*
137 Greater Hume	*HUME*	41%	*61.8%*	*87.3%*	28%	*16.0%*	*23.0%*
	CULCAIRN	100%	*38.2%*	*12.7%*	100%	*56.0%*	*52.0%*
	HOLBROOK	0%			100%	*28.0%*	*25.0%*
138 Gwydir	*BINGARA*	100%	*50.2%*	*44.9%*	100%	*51.0%*	*45.0%*
	YALLAROI	100%	*49.8%*	*55.1%*	100%	*49.0%*	*55.0%*
	BARRABA	0%			0%		
139 Liverpool Plains	*QUIRINDI*	100%	*62.0%*	*53.0%*	100%	*61.0%*	*67.0%*
	PARRY	39%	*32.4%*	*37.8%*	55%	*33.0%*	*28.0%*
	MURRURUNDI	20%	*5.6%*	*9.2%*	20%	*6.0%*	*5.0%*
	GUNNEDAH	0%			0%		
140 Mid-Western Regional	*MUDGEE*	100%	*79.6%*	*81.7%*	100%	*82.0%*	*78.0%*
	RYLSTONE	100%	*20.4%*	*18.3%*	100%	*18.0%*	*22.0%*
	MERRIWA	0%			0%		
141 Palerang	*TALLAGANDA*	100%	*37.5%*	*37.3%*	100%	*33.0%*	*28.0%*
	GUNNING	0%			0%		
	MULWAREE	0%			0%		
	YARROWLUMLA	100%	*62.5%*	*62.7%*	100%	*67.0%*	*72.0%*
142 Tamworth Regional	*TAMWORTH*	100%	*84.0%*	*74.0%*	100%	*87.0%*	*84.0%*
	MANILLA	100%	*5.8%*	*5.9%*	100%	*7.0%*	*6.0%*
	NUNDLE	100%	*1.2%*	*2.9%*	0%		
	BARRABA	100%	*3.5%*	*7.7%*	100%	*4.0%*	*6.0%*
	PARRY	61%	*6.1%*	*9.0%*	45%	*3.0%*	*4.0%*
143 Upper Hunter	*SCONE*	100%	*71.4%*	*69.6%*	100%	*74.0%*	*75.0%*
	MURRURUNDI	80%	*13.1%*	*14.9%*	80%	*13.0%*	*10.0%*
	MERRIWA	100%	*15.5%*	*15.4%*	100%	*13.0%*	*15.0%*
144 Upper Lachlan	*CROOKWELL*	100%	*77.0%*	*67.3%*	100%	*82.0%*	*72.0%*
	GUNNING	100%	*23.0%*	*32.7%*	100%	*18.0%*	*28.0%*
	MULWAREE	0%			0%		
	YASS	0%			0%		
145 Warrumbungle	*COONABARABRAN*	100%	*62.8%*	*48.3%*	100%	*66.0%*	*75.0%*
	COOLAH	100%	*37.2%*	*51.7%*	100%	*34.0%*	*25.0%*

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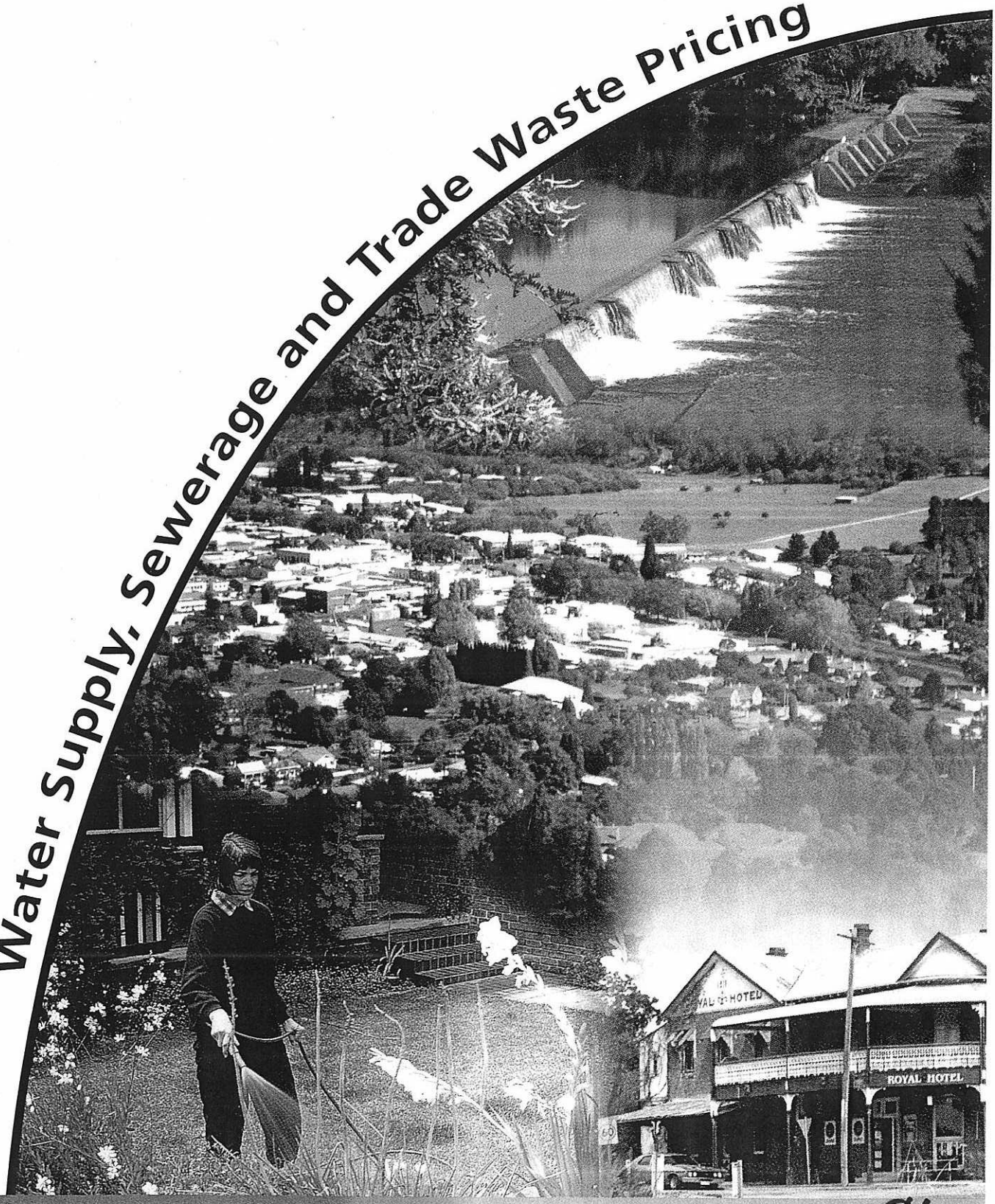
See page 6

LAND & WATER CONSERVATION

Overview

Water Supply, Sewerage and Trade Waste Pricing



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The NSW government aims to improve the quality and efficiency of services to all residents. To improve the efficiency of non-metropolitan water supply, sewerage and liquid trade waste services, it strongly recommends the introduction of best-practice pricing by non-metropolitan NSW water utilities.

As appropriate pricing is fundamental to effective management of water supply and sewerage businesses, the state government considers it important for all water utilities to set cost-reflective tariffs for water supply, sewerage and liquid trade waste in accordance with the Independent Pricing and Regulatory Tribunal's (IPART) "Pricing Principles for Local Water Authorities". *The IPART Pricing Principles are consistent with the Council of Australian Governments' (COAG) Strategic Framework for Water Reform which was agreed to by all Australian governments.*

To facilitate best-practice pricing of water supply, sewerage and trade waste by NSW water utilities, the Minister for Land and Water Conservation has arranged preparation of appropriate pricing software and guidelines for the utilities.

This brochure outlines the key elements of best-practice pricing for water supply, sewerage and liquid trade waste.

Water Supply Compliance

For NSW water utilities to comply with best-practice water supply pricing:

- 49% of utilities need to introduce pay-for-use water supply pricing
- 85% of utilities need to revise access charges for non-residential customers
- 15% of utilities need to remove present property value based tariffs (rates).

The NSW water supply pricing software will enable each water utility to develop and analyse the impact of a range of best-practice pay-for-use tariff options.

Benefits of Best-practice Pricing

Customers benefit from appropriate pricing signals as they can balance the benefits and costs of their use of water supply and sewerage services. Removal of cross-subsidies will reduce most residential bills.

The **Utility** provides appropriate pricing signals which are equitable and encourage efficient use of resources and facilities.

Environment and water resources are protected through efficient use of water supply and sewerage services.

Additional Information

More detailed information on water supply pricing is available in the WSAA *"Wise Water Management – A Demand Management Manual for Water Utilities".*

For further information please contact:

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Water Utility Performance
Department of Land and Water Conservation.
Level 3, Macquarie Tower
10 Valentine Avenue
Parramatta NSW 2150
Tel: 9895 5907
Fax: 9895 5968
Email: ssamra@dlwc.nsw.gov.au

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Water Supply Pricing

Best-practice water pricing should meet the following objectives:

- Set cost-reflective usage charges to promote efficient water use and distribute costs equitably among customers
- Raise the required revenue and
- Be simple to understand.

To achieve these objectives, the Council of Australian Governments (COAG) in 1994 agreed to the adoption of pay-for-use water supply pricing by all Australian water utilities by 1998. Such pricing needs to be independent of land value.

Pay-for-use pricing is a critical aspect of efficient water resource management.

As indicated in the WSAA *"Wise Water Management – A Demand Management Manual for Water Utilities"*, an appropriately set usage charge enables each customer to balance the benefits and costs of his or her water use. Setting the usage charge equal to the marginal cost of production allows the price of an additional unit of water to reflect the cost of delivering that unit.

The remainder of the revenue required for financial viability of the water utility, including investment in new and replacement infrastructure, is obtained through the access charge. All land value related access charges (rates) should be removed and non-residential access charges should be proportional to the square of the size of the customer's water supply service connection. Such cost-reflective pricing by water utilities will enable them to eliminate existing cross-subsidies.

Water Pricing Options

Tariff structures that comply with the best-practice water supply pricing principles are:

(1) Two-part tariff and

(2) Inclining block tariff.

Other tariff structures such as land value based charges (rates), declining block tariffs and tariffs involving an annual water allowance do not comply with best-practice pricing principles and should be avoided.

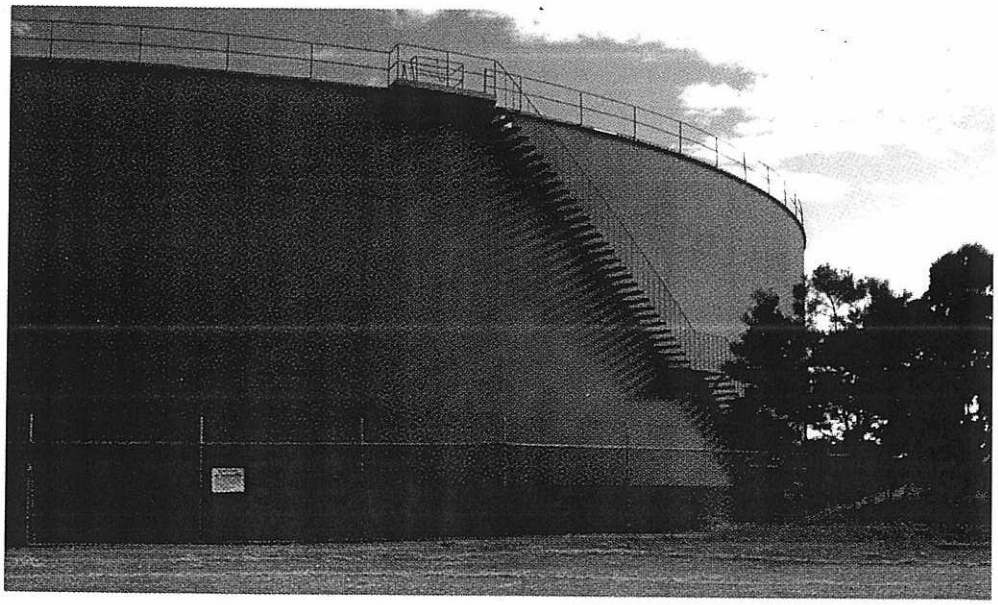
The usage charge for the first step of an inclining block tariff should be not less than the marginal operating cost (typically at least 35 c/kL). The second step of an inclining block tariff and the usage charge for a two-part tariff should be based on the long-run marginal cost ie. the sum of the marginal operating cost and the marginal capacity cost (typical values for non-metropolitan NSW range from 80 c/kL to $1.20 /kL). The access charge should be set to recover the remainder of the required income from annual rates and charges.

Two-Part Tariff

A two-part tariff comprises a uniform access charge per residential property (20 mm service connection) and a uniform usage charge/kL for all water consumption.

Inclining Block Tariff

An inclining block tariff comprises a uniform access charge per residential property with a relatively low usage charge/kL for the first step of about 200 kL/a and a higher charge/kL for greater usage.



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Impact of pay-for-use pricing on water demand – as customers move from a fixed annual charge to a two-part or inclining block tariff structure, they tend to adjust their consumption to reflect the value they obtain from each unit of water. If the marginal price of water reflects the cost of storing, treating and delivering it, customers can make an informed decision whether the benefit they obtain from an additional kL of water is greater or less than the cost they are paying for it. When the benefit obtained drops below the price paid, the customer will reduce his or her water demand and apply the funds elsewhere. However, when customers are not faced with a usage charge/kL, they have no *economic* reason to use water efficiently.

NSW experience with the introduction of pay-for-use water pricing has been a reduction of around 20% in total water demand. Replacement of an inclining block tariff structure with a two-part tariff may lead to a further 10% reduction.

Water Pricing Model

Water pricing software has been developed by the NSW Department of Land and Water Conservation (DLWC) to assist NSW water utilities develop best-practice water supply tariff structures. The water pricing model enables a water utility to analyse pricing options that yield the required income and their impacts (percentage real increase in water supply bill) on a range of residential, non-residential and non-rateable customers (ie. incidence analysis).

The model has been developed in MS Excel 97 and will enable each water utility to examine the merits of a range of best-practice water pricing options.

The bulk of the input data required to use the model relates to the utility's customers:

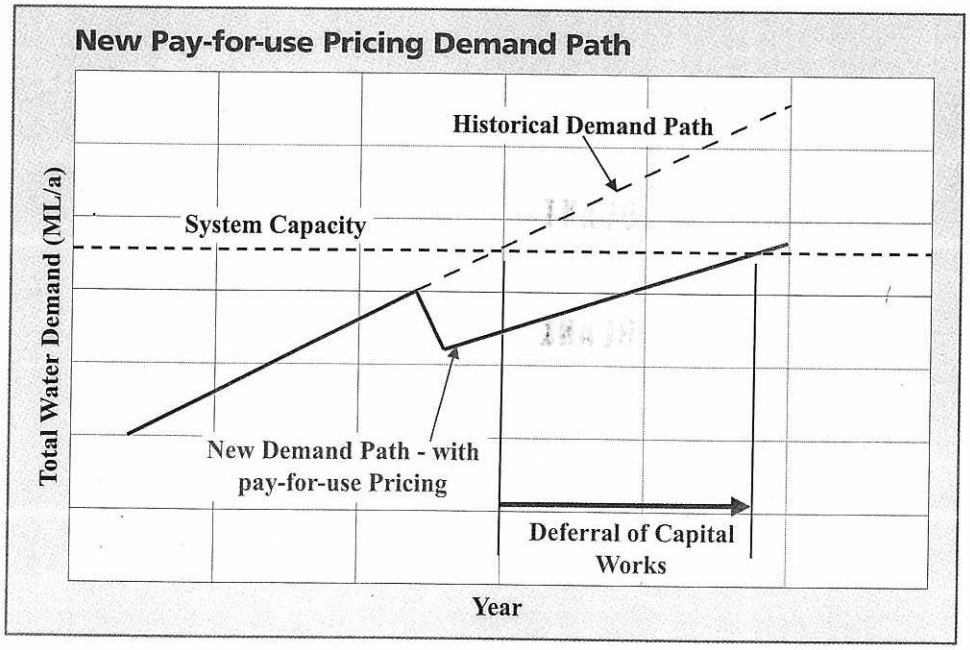
- Customer category
- Metered consumption
- Existing charges and
- Service connection size.

The model reports the likely impact of a range of pricing options on total revenue and the bills for various customer groups.

Key indicators such as % of total revenue by customer group and the percentage real increase in residential and non-residential bills are reported.

In developing new pay-for-use tariff options, the water utility should aim to avoid significant increases in bills for moderate water users. Low water users will typically receive a reduction in their water bill, high water users may receive an increase and customers with large service connections will receive a significant increase.

As an example of the use of the water supply pricing model, analysis of Bombala water pricing was undertaken as a case study, as shown on the facing page. A summary of results and benefits is also shown.



To assist NSW water utilities, DLWC has developed Water Pricing software. The model enables the utility to examine the merits of a range of pricing options.

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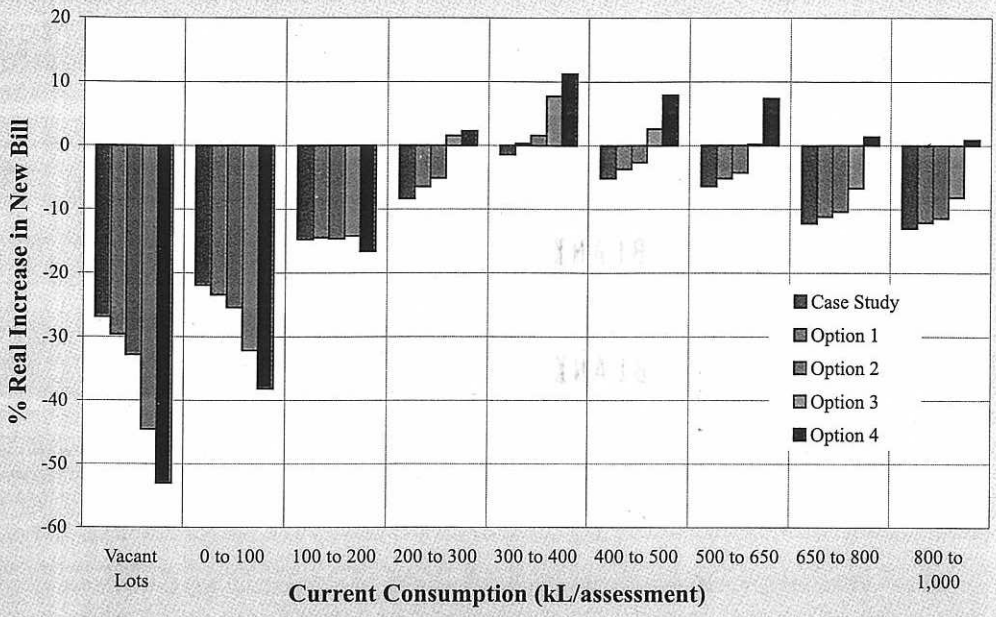
EXAMPLE OF EFFECT OF PRICING OPTIONS ON RESIDENTIAL WATER BILLS – *Bombala*



CURRENT TARIFF		NEW TARIFF OPTIONS				
	Existing	Case Study	Option 1	Option 2	Option 3	Option 4
Access Charge						
Amount ($)	436	332	320	306	255	218
First Step (kL)	300	200	200	200	All	All
Usage Charge						
First Step (c/kL)	Nil	40	50	60	100	120
Second Step (c/kL)	84	100	100	100	N/A	N/A
	% of Income from Each Customer Group					
RESIDENTIAL	84	74	74	74	75	75
NON-RESIDENTIAL	15	24	24	23	22	22
NON-RATEABLE	1	2	2	2	3	3
Total	100	100	100	100	100	100

As universal pay-for-use pricing is introduced, the residential component of income from annual charges will fall by up to 10% (see Table above). However as indicated in the Table, the non-residential component may increase by over 40% due to removal of the present cross-subsidies.

In the example for Bombala, Council is planning to replace its annual water allowance with a best-practice inclining block or two-part tariff. The options examined are revenue-neutral. Each option results in a significant reduction in the bills for most residential customers.

Cross-subsidies – Water Supply

Where significant cross-subsidies exist, it is inevitable that the beneficiaries of these subsidies (eg. a large factory) will receive a significant increase in their water supply bill under a pay-for-use tariff. Where large increases in tariffs result from the removal of a cross-subsidy, the increases should be phased in over a period of three years.

Results

- **Over 10% reduction in bills for low water users**
- **Small reduction for others with a 20 mm connection**
- **Significant increase for high water users with large service connections due to removal of present cross-subsidies.**

Benefits

- **The pricing signals provided enable each customer to balance the benefits and costs of his or her water use**
- **More efficient use of water resources and the water supply system.**

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