



Tasmania

State Grants Commission

DISCUSSION PAPER
DP 07-02

REVIEW OF WATER AND SEWERAGE ASSESSMENT

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STATE GRANTS COMMISSION

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1 BACKGROUND

Following introduction of the revised base grant equalisation model in August 2005, the State Grants Commission has progressed a review of the method for assessing water and sewerage expenditures.

This review has been prompted by concerns in relation to the ongoing relevance of the 'equivalent tenements' cost adjustor and whether the application of other cost adjustors adequately recognise councils' unique disabilities in relation to the provision of water and sewerage services. The Equivalent Tenements cost adjustor, which is the principal means of representing non-residential water and sewerage services in per-capita terms, was formulated in 1997 and has not been recalculated since then. Moreover, the overall appropriateness of a population basis for the assessment has been a subject for discussion by councils and the Commission in recent years.

The Commission is mindful of potential outcomes from the State Government's current water and sewerage review. This revisiting of the Commission's water and sewerage assessment will be progressed until at least such time as the outcomes of the State Government review are known.

2 PREVIOUS CONSULTATION AND COMMISSION DECISIONS

The Commission signalled its intention to review its method of assessing water and sewerage expenditures in the 2002-03 Annual Report. In 2004, the Commission issued an Information Brief at the Council Hearings and Visits. That paper detailed advice provided to the Commission by a consultant during 2003, which included:

- That expenditures per unit of urban population are more appropriate as a basis for equalising water and sewerage expenditures than expenditures per unit of total population.
- The appropriateness of including cost adjustors for Worker Influx and Equivalent Tenements warranted review, due to the possibility of double-counting. The Worker Influx cost adjustor was subsequently removed from the assessment of water and sewerage expenditures in the base grant equalisation model.
- Of the information available from Local Government Key Performance Indicators, two measures may be of use as raw data for cost adjustors, being (1) metres of

reticulation per water connection, and (2) number of persons per residential property.

Further matters of interest raised in the Information Brief included:

- The influence of scale, geographic dispersion, topography, water quality and scheme duplication on the relative cost of providing bulk and reticulated water.
- The influence of scale, dispersion, topography, outfall/environmental standards, re-use of treated effluent and scheme duplication on the relative costs of reticulating and treating sewerage.

The Information Brief indicated that, following receipt of the consultant's advice, the Commission was inclined to a view that a per-property approach would provide a more accurate outcome than a per-capita approach. The Information Brief outlined a method which proceeded by determining residential equivalents, separately for all property types, on a per property basis.

In early 2006, the Commission engaged consulting firm SKM to review the calculation of water and sewerage expenditure standards and cost adjustors. The SKM review was not completed in time for provision to councils at the 2006 Hearings and Visits. Nonetheless, the Commission provided advice of its understanding of some alternative approaches, and sought council's comments. That advice included:

- That residential equivalent tenements might be calculated from property numbers provided by the Valuer-General. The Commission outlined the limitations associated with this approach, which arise due to ~~inconsistent~~ or inconsistent data relevant to different property types or categories.
- That customers consuming more than 10ML per annum might be excluded from the analysis, so as to confine the analysis to a relatively homogeneous set of small customer connections, and to exclude those large connections from which councils might be reasonably expected to fully recover costs.
- That the cost of bulk water (i.e. produced or purchased) and reticulation might be analysed separately. The data requirements associated with that approach were outlined. The Commission also highlighted the disparity between information provided by councils to the Government Prices Oversight Commission and to the Consolidated Data Collection.

The SKM report was received by the Commission in July 2006. The report recommendations include:

- Expenditure standards be calculated using the "Equivalent Persons" methodology provided by the Water Services Association of Australia. A copy of the conversion factors for various classes of connection and an overall description of the method is attached as an appendix to the SKM report.
- A cost adjustor for terrain or topography be developed, using energy costs as an indicator of each councils' pumping task.

- A cost adjustor for differing sewerage outfall standards be developed.
- That commercial liquid trade waste volumes be specifically dealt with outside the assessment process.

The view of the Commission is that full implementation of some of the report recommendations would require data collections that would be difficult for councils to meet in a consistent manner. Nonetheless, the Commission is considering which of the SKM recommendations may be utilised in a revised method. Copies of the SKM report will be forwarded to councils on request.

In the course of the Commission's previous consultations with councils on this matter, councils have consistently endorsed the Commission's view that a property-based assessment of water and sewerage would be preferable to the current population-based approach.

3 DESCRIPTION OF THE PROPOSED APPROACH

Following consideration of the SKM report, the Commission has developed a simplified property-based approach which, while not requiring provision of large volumes of data by councils, will provide a more representative approach to assessing water and waste water expenditures by councils, than is currently possible under a per-capita approach.

The proposed approach requires the provision of only a single catch-all figure for revenue (rates and per unit charges) collected from large water customers - and a single figure for large sewerage customers - in addition to the data already provided to the Consolidated Data Collection.

In place of the current population-based approach, whereby water and sewerage expenditure standards are calculated with respect to population, the proposed revised approach is to calculate standards on a per-property basis. The basic principles of this approach have been described in previous consultation material and have received widespread support from councils at the 2004, 2005 and 2006 council Hearings and Visits.

The proposed revised approach proceeds on the basis of calculating per-property expenditure standards from total expenditure net of large customer revenues. It is proposed to deduct large customer revenues from the total expenditure data for each council prior to calculating standards, on a policy-neutral assumption that expenditure associated with provision of water and liquid trade waste services to large customers is fully recoverable through user charges.

As such the proposed revised approach will equalise only those expenditures associated with non-large customers.

3.1 CALCULATION OF EXPENDITURE STANDARDS

3.1.1 CALCULATION OF PERCENTAGE EXPENDITURE STANDARDS

In this section, an example calculation of per-property standards for water and sewerage expenditure is shown. These are compared with the standards, calculated on a population basis, from the most recent base grant model.

These standards are shown in percentage terms, for easier general comparison. It is anticipated that these percentage standards would apply equally to total water and total sewerage expenditure, to arrive at a dollar standard expenditure figures for each council.

The standards are proposed to be calculated from property numbers data provided by the Valuer-General. The property classifications under which this data is provided, are:

- Commercial;
- Industrial;
- Primary Production;
- Public Service/Utilities;
- Residential;
- Sport/Recreation; and
- Vacant.

The Commission proposes to base the calculation of standards on property numbers, including all property types except Primary Production on the assumption that relatively few primary production properties have a reticulated water or sewerage service. The calculation of percentage standards from property numbers on this basis is shown in Table 1. Table 1 also shows a comparison with the standards generated on the basis of population numbers, as used in the 2006-07 base grant equalisation model.

TABLE 1 PROPERTY NUMBERS (EXCL PRIMARY PRODUCTION), EQUIVALENT PERCENTAGE STANDARDS AND PERCENTAGE WATER AND SEWERAGE STANDARDS FROM THE 2006-07 BASE GRANT EQUALISATION MODEL

Council	Property Numbers (excl Primary Production)	Calculated Percentage Standards	Standards based on July 2005 Populations
BREAK O'DAY	5 617	2.4%	1.3%
BRIGHTON	5 753	2.5%	2.8%
BURNIE	8 757	3.7%	4.0%
CENTRAL COAST	9 157	3.9%	4.3%
CENTRAL HIGHLANDS	2 987	1.3%	0.5%
CIRCULAR HEAD	3 620	1.5%	1.7%
CLARENCE	21 794	9.3%	10.4%
DERWENT VALLEY	4 460	1.9%	2.0%
DEVONPORT	11 146	4.8%	5.2%
DORSET	3 791	1.6%	1.5%
FLINDERS	805	0.3%	0.2%
GEORGE TOWN	3 816	1.6%	1.4%
GLAM/SPRING BAY	4 766	2.0%	0.9%
GLENORCHY	19 972	8.5%	9.2%
HOBART	22 527	9.6%	10.1%
HUON VALLEY	7 936	3.4%	3.0%
KENTISH	2 516	1.1%	1.2%
KING ISLAND	937	0.4%	0.3%
KINGBOROUGH	14 350	6.1%	6.5%
LATROBE	4 591	2.0%	1.8%
LAUNCESTON	28 152	12.0%	13.4%
MEANDER VALLEY	7 895	3.4%	3.8%
NTHN MIDLANDS	5 405	2.3%	2.5%
SORELL	7 413	3.2%	2.4%
STHN MIDLANDS	2 590	1.1%	1.2%
TASMAN	2 993	1.3%	0.4%
WAR/WYNYARD	6 343	2.7%	2.7%
WEST COAST	4 443	1.9%	1.0%
WEST TAMAR	9 788	4.2%	4.4%
	234 320	100.0%	100.0%

3.1.2 CALCULATION OF DOLLAR EXPENDITURE STANDARDS

The proposed revised approach applies the standards shown in Table 1 to total expenditure net of large customer revenues. The deduction of large customer revenue from total expenditure returns a 'net expenditure' figure, on the assumption that large customer expenditures are fully recoverable.

This section shows an example of this calculation, made in respect of available water data. An equivalent calculation would be applicable to sewerage, and will require the determination of an appropriate threshold for 'large and/or toxic liquid trade waste customers', and the provision of a corresponding revenue figure by each council.

Large customer water revenues for 2004-05 have been determined by an informal survey of councils. Large customer water revenues for those

councils that did not respond to the survey request, of 1 November 2006, are estimated.

Table 2 below shows total water expenditures and large water customer revenues for 2004-05. Table 2 also shows total water expenditure net of large customer revenue (“small customer expenditures”) and small customer expenditure standards calculated using the calculated percentage standards shown in Table 1.

TABLE 2 ESTIMATES OF TOTAL WATER EXPENDITURE NET OF RECOVERABLE LARGE CUSTOMER EXPENDITURES AND CALCULATION OF EXPENDITURE STANDARDS

Council	Total Expenditure (1)	Large customer revenues (2)	Net Expenditures (1)-(2)	Expenditure Standards
BREAK O'DAY	863 490	5 997	857 493	1 555 502
BRIGHTON	2 549 421	0	2 549 421	1 593 164
BURNIE	2 807 583	286 966	2 520 617	2 425 054
CENTRAL COAST	2 906 448	0	2 906 448	2 535 825
CENTRAL HIGHLANDS	294 254	0	294 254	827 182
CIRCULAR HEAD	1 130 344	608 706	521 638	1 002 477
CLARENCE	6 631 315	350 000	6 281 315	6 035 357
DERWENT VALLEY	1 735 079	0	1 735 079	1 235 097
DEVONPORT	5 044 403	406 755	4 637 649	3 086 634
DORSET	1 070 940	0	1 070 940	1 049 832
FLINDERS	66 934	0	66 934	222 927
GEORGE TOWN	661 404	0	661 404	1 056 755
GLAM/SPRING BAY	1 046 356	0	1 046 356	1 319 836
GLENORCHY	8 457 576	2 708 172	5 749 404	5 530 796
HOBART	8 788 419	1 175 000	7 613 419	6 238 345
HUON VALLEY	1 239 794	0	1 239 794	2 197 696
KENTISH	468 456	0	468 456	696 750
KING ISLAND	205 907	0	205 907	259 481
KINGBOROUGH	2 852 468	52 675	2 799 793	3 973 909
LATROBE	1 185 030	2 774	1 182 256	1 271 374
LAUNCESTON	10 196 274	212 817	9 983 457	7 796 062
MEANDER VALLEY	1 403 208	75 582	1 327 626	2 186 342
NTHN MIDLANDS	1 023 035	94 880	928 155	1 496 793
SORELL	725 700	67 348	658 352	2 052 863
STHN MIDLANDS	557 813	33 567	524 246	717 242
TASMAN	1 000	0	1 000	828 844
WARATAH/WYNYARD	1 393 415	159 145	1 234 270	1 756 551
WEST COAST	935 954	0	935 954	1 230 389
WEST TAMAR	4 888 010	0	4 888 010	2 710 566
	71 130 030	6 240 384	64 889 646	64 889 646

Expenditure standards for each council (column 4) calculated by multiplying the total of Net Expenditures (column 3) and the calculated percentage standards shown in column 2 of Table 1.

3.2 APPLICATION OF COST ADJUSTORS

The proposed approach requires the application of cost adjustors to transform expenditure standards to standardised expenditures for each council, in the manner common across all expenditure categories in the base grant equalisation model.

The application of cost adjustors is in recognition of unavoidable cost and demand pressures in providing services, which impacts on a councils' ability to deliver a service at the standard level of expenditure.

The Commission proposes to retain some existing cost adjustors, introduce some new cost adjustors, and discontinue using some existing cost adjustors. These cost adjustors are described below:

3.2.1 EXISTING COST ADJUSTORS TO BE RETAINED

The following cost adjustors are currently applied to the expenditure standards for water (and sewerage), and are proposed to be retained in the revised method.

In the context of the current base grant model, these cost adjustors are centred around a population weighted average of one. In the context of the proposed revised method, these cost adjustors would be recalculated to be centred around a property number weighted average of one.

CLIMATE

This cost adjustor reflects the additional maintenance costs associated with adverse weather. Calculation of the cost adjustor is on the basis of rainfall, with those municipalities recording more than 1000mm per annum at the administrative centre receiving a score greater than one, and the remainder receiving a cost adjustor very close to, but less than one.

DISPERSION

This cost adjustor relates to additional costs associated with servicing dispersed population centres within a municipality. Centres are included in the calculation if the population of the centre is 150 or greater, or if there are 75 or more dwellings in the centre. The cost adjustor is determined by (a) the number of population centres in each municipality, weighted 25 per cent (b) the population-weighted distance between those centres and the administrative centre of the municipality, weighted 37.5 per cent, and (c) the dwelling-weighted distance between those centres and the administrative centre of the municipality, weighted 37.5 per cent. The weighting of these components will be revisited to better reflect the cost components of service delivery to dispersed centres for water and sewerage. This cost adjustor also reflects loss of scale economies associated with any requirement to operate duplicate schemes due to a widely dispersed population.

ISOLATION

This cost adjustor provides recognition for increased costs which arise from geographic isolation. Such costs are associated with attracting staff to remote areas, communication and travel costs and the supply of construction and maintenance materials. This cost adjustor is calculated on the basis of a weighted sum of distances to Burnie, Launceston and/or Hobart, depending on the location of the municipality. The weightings of the components of this cost adjustor calculation are described in the 2006-07 State Grants Commission Annual Report, at page 20.

SCALE – OTHER

This cost adjustor accounts for the diseconomies of scale that smaller councils face in providing some services. Cost adjustors for each council are calculated on the basis of a description of the relationship between general administration expenditure and population. The range of cost adjustment applied to non-general administration expenditure (including water and sewerage) is half of that applied to general administration expenditure.

3.2.2 NEW COST ADJUSTORS PROPOSED TO BE INTRODUCED

PERSONS PER DWELLING

This cost adjustor is intended to reflect the differences in service levels required for residential tenements on the basis of the number of persons per residential tenement in each council area.

The cost adjustor would be calculated from ABS data on residential populations, and Valuer-General data on numbers of residential properties. Both data are updated annually.

PUMPING COSTS

This cost adjustor is intended to reflect the differences in costs associated with terrain, and would be based on metered energy use (in kilowatt hours) associated with pumping and kilometres of reticulation.

SERVICE DENSITY

This cost adjustor is intended to reflect differences in costs associated with the density of development, and would be calculated on the basis of number of connections per kilometre of reticulation.

3.2.3 EXISTING COST ADJUSTORS PROPOSED TO BE DISCONTINUED

The proposed set of cost adjustors does not include the Equivalent Tenements, Absentee Population or Population Decline cost adjustors, which are included in the assessment of water and sewerage expenditures in the current

equalisation model. The reasons for exclusion of these cost adjustors are outlined, in turn, below:

EQUIVALENT TENEMENTS COST ADJUSTOR

Application of the current equivalent tenements cost adjustor is not appropriate in the context of a per-property analysis. The Equivalent Tenements cost adjustor is included in the current approach as a means of determining a 'residential equivalent' number of tenements, such that expenditures may be standardised on a population-weighted basis. This transformation is not required if expenditure standards and standardised expenditures are calculated on a per-property basis.

The proposed method excludes analysis of large commercial and industrial connections, and so conversion of these large tenements to a residential equivalent is not required. Expenditures relating to small connections may be representatively standardised on the basis of property numbers, as the mix of residential and small non-residential connections are more uniform across Tasmanian councils.

ABSENTEE POPULATION COST ADJUSTOR

The Absentee Population cost adjustor adjusts for population not captured by census statistics, but which nonetheless must be serviced. Application of this cost adjustor is not necessary or appropriate in the context of a per-property approach.

POPULATION DECLINE

The Population decline cost adjustor has been used in the past to reflect excess capacity in service delivery infrastructure created when population numbers decline. The application of this cost adjustor is not relevant to a property based approach.

3.3 EXAMPLE OF COST ADJUSTOR CALCULATION

Table 3 overleaf illustrates a hypothetical combination of cost adjustors for application to standard water expenditure. This example is presented to show how these cost adjustors may act in combination, but are not intended to provide a definitive description of any one cost adjustor. The selection of cost adjustors and the final specification of each will be determined following further consultation with councils.

The raw scores for existing cost adjustors are taken from the 2006 base grant equalisation model, and are re-weighted around a property weighted average of one. For the purposes of this example, the range factors for each cost adjustor are selected to produce a similar range (difference from maximum to minimum) as in the 2006 base grant model, and may need to be revisited to reflect the observable range of advantages and disadvantages associated with each cost element. A description of

how the scores for each cost adjustors are calculated appears in the 2006-07 Commission Annual Report (pages 19-21).

The raw scores for the new cost adjustor, “Persons per Dwelling” are calculated from ABS data on residential populations, and Valuer-General data on numbers of residential properties (column J). Both data are updated annually. In this example, the range factor (RF=10.00) is set to give a maximum cost adjustor of 1.047 (West Tamar) and a minimum cost adjustor of 0.911 (Tasman).

The raw scores for the new cost adjustor, “Pumping Costs” are intended to reflect expenditure on pumping energy per kilometre of reticulation, and is intended to reflect the cost advantages and disadvantages associated with different terrain. The Commission does not have access to data on pumping energy costs. In the absence of data on pumping costs, the raw score in this example (column L) is calculated from operation and maintenance cost data provided to the Government Prices Oversight Commission (as a proxy for pumping energy costs) and kilometres of reticulation, provided to the CDC. For the purposes of this example, values for Tasman are made equal to the average of all other council values. In this example, the range factor (RF=10.00) is set to give a maximum cost adjustor of 1.272 (West Coast) and a minimum cost adjustor of 0.855 (Flinders). If this cost adjustor is adopted as part of the new method, pumping costs (in dollars or kWh) will be collected from councils by survey as the basis for this calculation.

The raw scores for the new cost adjustor, “Service Density” are calculated from CDC data on number of connections and kilometres of reticulation (column N). For the purposes of this example, values for Tasman are made equal to the average of all other council values. In this example, the range factor (RF=0.25) is set to give a maximum cost adjustor of 1.184 (Central Highlands) and a minimum cost adjustor of 0.959 (Devonport).

TABLE 3 SAMPLE CALCULATION OF COST ADJUSTORS

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
EXISTING COST ADJUSTORS									NEW COST ADJUSTORS						
Range Factors ->	CLIMATE		DISPERSION		ISOLATION		SCALE-OTHER		PERSONS PER DWELLING		PUMPING COSTS		SERVICE DENSITY		COMPOUND COST ADJUSTOR
	RAW SCORE	COST ADJ RF: 197.69	RAW SCORE	COST ADJ RF: 9.61	RAW SCORE	COST ADJ RF: 14.49	RAW SCORE	COST ADJ RF: 4.72	RAW SCORE	COST ADJ RF: 10.00	RAW SCORE	COST ADJ RF: 10.00	RAW SCORE	COST ADJ RF: 0.25	
BREAK O'DAY	0.00	0.998	1.36	1.061	1.95	1.097	1.67	1.104	1.34	0.929	3.55	1.045	0.04	1.054	1.287
BRIGHTON	0.00	0.998	0.33	0.961	0.25	0.983	1.21	1.025	2.73	1.043	2.23	0.943	0.03	1.016	0.969
BURNIE	0.00	0.998	0.24	0.952	0.70	1.013	1.04	0.996	2.2	1.000	4.65	1.129	0.03	0.990	1.078
CENTRAL COAST	0.00	0.998	0.54	0.981	0.78	1.019	1.00	0.989	2.28	1.006	1.47	0.884	0.03	0.991	0.868
CENT HIGHLANDS	0.00	0.998	2.73	1.193	0.82	1.021	2.35	1.222	1.37	0.932	3.21	1.018	0.08	1.184	1.568
CIRCULAR HEAD	6.97	1.033	0.95	1.021	1.66	1.077	1.45	1.066	2.2	1.000	1.56	0.891	0.03	0.991	1.078
CLARENCE	0.00	0.998	0.74	1.000	0.09	0.973	0.72	0.940	2.38	1.014	2.96	0.999	0.02	0.974	0.897
DERWENT VALLEY	0.00	0.998	0.48	0.975	0.43	0.995	1.37	1.052	2.41	1.017	3.13	1.012	0.04	1.047	1.096
DEVONPORT	0.00	0.998	0.06	0.935	0.54	1.002	0.95	0.979	2.19	0.999	3.27	1.022	0.02	0.959	0.894
DORSET	0.00	0.998	1.13	1.038	0.90	1.027	1.52	1.078	2.02	0.985	2.98	1.000	0.04	1.054	1.179
FLINDERS	0.00	0.998	0.93	1.018	4.23	1.249	3.46	1.413	1.66	0.955	1.10	0.855	0.06	1.107	1.595
GEORGE TOWN	0.00	0.998	0.64	0.991	0.80	1.020	1.58	1.089	1.96	0.980	2.16	0.937	0.02	0.988	1.003
GLAM/SPRING BAY	0.00	0.998	2.43	1.164	0.98	1.032	1.90	1.145	1.28	0.924	2.83	0.989	0.04	1.047	1.299
GLENORCHY	0.00	0.998	0.06	0.935	0.14	0.976	0.75	0.945	2.27	1.005	2.31	0.949	0.02	0.978	0.786
HOBART	0.00	0.998	0.06	0.935	0.00	0.967	0.73	0.943	2.45	1.020	2.18	0.939	0.02	0.976	0.777
HUON VALLEY	0.00	0.998	1.52	1.076	0.43	0.995	1.19	1.021	2.12	0.993	4.04	1.082	0.04	1.048	1.212
KENTISH	7.00	1.033	1.09	1.034	0.72	1.014	1.70	1.110	2.38	1.014	2.80	0.986	0.02	0.984	1.176
KING ISLAND	0.00	0.998	0.60	0.987	5.74	1.349	2.68	1.280	1.79	0.966	5.94	1.229	0.03	1.022	1.831
KINGBOROUGH	0.00	0.998	0.94	1.020	0.12	0.975	0.88	0.969	1.7	0.959	1.56	0.891	0.03	1.009	0.819
LATROBE	0.00	0.998	0.58	0.985	0.62	1.008	1.45	1.067	2.11	0.992	1.50	0.887	0.03	1.012	0.948
LAUNCESTON	0.00	0.998	0.31	0.959	0.22	0.981	0.65	0.928	2.44	1.019	4.84	1.144	0.02	0.979	1.009
MEANDER VALLEY	0.00	0.998	1.61	1.085	0.62	1.008	1.07	1.001	2.32	1.009	2.43	0.958	0.03	1.011	1.069
NTHN MIDLANDS	0.00	0.998	0.96	1.021	0.47	0.998	1.26	1.033	2.29	1.007	3.41	1.034	0.04	1.036	1.126
SORELL	0.00	0.998	0.77	1.003	0.28	0.985	1.30	1.040	1.95	0.979	3.89	1.070	0.02	0.963	1.039
STHN MIDLANDS	0.00	0.998	2.24	1.146	0.96	1.030	1.68	1.107	2.36	1.013	1.62	0.895	0.06	1.127	1.316
TASMAN	0.00	0.998	1.05	1.031	1.13	1.042	2.43	1.236	1.12	0.911	2.93	0.997	0.03	1.021	1.235
WAR/WYNYARD	0.00	0.998	0.91	1.017	0.92	1.028	1.19	1.021	2.19	0.999	2.13	0.935	0.03	1.010	1.007
WEST COAST	15.03	1.074	2.14	1.136	2.02	1.101	1.70	1.110	1.79	0.966	6.50	1.272	0.03	1.002	1.661
WEST TAMAR	0.00	0.998	1.58	1.081	0.48	0.998	1.02	0.992	2.78	1.047	1.91	0.918	0.03	1.014	1.048
	PWA=0.468	PWA=1.000	PWA=0.736	PWA=1.000	PWA=0.502	PWA=1.000	PWA=1.065	PWA=1.000	PWA=2.204	PWA=1.000	PWA=2.975	PWA=1.000	PWA=0.028	PWA=1.000	PWA=1.000
		max = 1.074		max = 1.193		max = 1.349		max = 1.413		max = 1.047		max = 1.272		max = 1.184	max = 1.831
		min = 0.998		min = 0.935		min = 0.967		min = 0.928		min = 0.911		min = 0.855		min = 0.959	min = 0.777

The compound cost adjustor (column P) is arrived at by the usual “additive” method, whereby:

$$\text{Compound CA} = (\text{sum of CAs}) \text{ minus } (\text{number of CAs}) \text{ plus } 1.$$

In this example calculation, the maximum compound cost adjustor is 1.831 (King Island) and the minimum compound cost adjustor is 0.777 (Hobart).

4 CONCLUSIONS AND ISSUES FOR COUNCIL CONSIDERATION

The Commission is seeking council views on the appropriateness of the approach to water and sewerage assessment described in this Discussion Paper. In particular, the Commission is seeking council comment on:

- The proposed property-based approach, and whether property numbers are an appropriate basis on which to base the assessment, and which property types should be included.
- The exclusion of large customer water expenditures, the reasonableness of the assumption that large customer water expenditures are recoverable, and the adoption of a 10ML threshold for exclusion of those expenditures.
- Appropriate equivalent thresholds for ‘large sewerage customers’, and whether appropriate thresholds may be defined solely in terms of volume.
- The choice of component cost adjustors and the appropriate relative weighting of these components in the calculation of the final composite cost adjustor.

State Grants Commission
25 January 2007