



COMMONWEALTH GRANTS COMMISSION

DRAFT ASSESSMENT PAPER CGC 2003/44

CONCESSIONS AND OTHER PAYMENTS — WATER, SANITATION AND PROTECTION OF THE ENVIRONMENT

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NOTE

Included in this paper are the results of preliminary calculations based on the methods proposed throughout the paper and using the data currently available. Those results are indicative only and should be seen as work in progress. Ongoing changes are being made to standards and factor calculations as new data come to hand. Moreover, the calculations have been done using a prototype assessment system and are subject to ongoing revision as checking processes proceed.

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INTRODUCTION

1. This paper presents the draft assessment for the 2004 Review for Concessions and Other Payments: Water, Sanitation and Protection of the Environment. It builds on the staff proposals set out in *Discussion Paper CGC 2002/35, Concessions and Other Community Service Obligations* and State comments on them provided at the 2002 Conferences and in the 2003 Rejoinder submissions.

2. General issues relating to the assessment of Concessions and Other Payments are addressed in *Draft Assessment Paper CGC 2003/43, Concessions and Other Payments: General Issues and Electricity and Gas*. Decisions on those general issues are applied in this assessment.

THE 1999 REVIEW METHOD

3. In the 1999 Review, the then Water Supply and Sewerage category comprised costs to the State budget sector of payments made to, or on behalf of, undertakings providing water supply and sewerage services. More specifically, it included all costs associated with the reimbursement of concessions, subsidies and payments of community service obligations. Payments made by government on behalf of the public trading enterprises (PTEs) for depreciation and debt charges were also included. Where the service operated as part of the general government sector, and did so at a loss, that loss was also included.

4. Table 1 shows the gross standard expenses for six completed financial years. In 2001-02, the per capita standard for this category was \$20.77. This represented 0.41 per cent of total gross standard expenses.

Table 1 WATER SUPPLY AND SEWERAGE — GROSS STANDARD EXPENSES, 2003 UPDATE

	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02
\$pc	27.90	24.62	19.81	18.80	20.41	20.77
% of total gross standard expenses	0.76	0.64	0.43	0.41	0.42	0.41

Structure of the assessment

5. The assessment structure used in the 1999 Review is summarised in Table 2. The proportions of the components were estimated from State budgetary data.

Table 2 WATER AND SEWERAGE ASSESSMENT STRUCTURE, 1999 REVIEW

Expenses component	Component weight	Factors	Basis of calculation
	%		
Non-urban deficit subsidies	52.35	Input costs	General method with weights of 40% for wages, 2% for accommodation and 1% for electricity.
		Interest rate	General method.
		Physical environment	Based on data of surface and groundwater resources, climatic conditions and water consumption by River Drainage Basin.
		Socio-demographic composition	Based on the number of people in each State's population residing outside urban centres of population greater than 50 000.
Industry assistance	24.93	None	Equal per capita.
Pensioner concessions	22.44	Socio-demographic composition	Based on the number of Australian Government pensioners in each State's population.
Land rights	0.05	Land rights	General method.
Isolation	0.23	Isolation	General method.

6. Compared with an equal per capita assessment, the Water Supply and Sewerage assessment redistributed about \$45.7 million, nearly all to South Australia, in the 2003 Update.

2004 REVIEW CATEGORY DEFINITION AND STRUCTURE

Scope of the category

7. The Commission proposes to define the Water, Sanitation and Protection of the Environment category as comprising costs to the State budget sector of payments made to, or on behalf of, undertakings providing water, sanitation and protection of the environment services. More specifically, it includes all costs associated with the reimbursement of concessions, subsidies and payments of community service obligations and depreciation expenses borne by the general government sector on behalf of PTEs. Where the service operates as part of the general government sector, and does so at a loss, that loss is also included.

8. This definition differs from that used in the 1999 Review in one respect: payments made by government on behalf of PTEs for debt charges have been classified to the Debt Charges category.

9. **Specific Purpose Payments (SPPs).** In *Draft Assessment Paper CGC 2003/78, Treatment of Specific Purpose Payments*, the Commission proposed including expenses relating to the SPP for Concessions for Australian Government Seniors Health Card Holders (CSHC) in the Water, Sanitation and Protection of the Environment category for the 2004 Review.

Assessment structure

10. **1999 Review.** The assessment structure used in the 1999 Review is summarised in Table 2.

11. **State views.** States did not raise any issues specifically concerned with the assessment structure for this category, except for protection of the environment issues.

12. **2004 Review.** The Commission's decision on the component structure for all Concessions and Other Payments categories is set out in the General Issues part of *Draft Assessment Paper CGC 2003/43, Concessions and Other Payments: General Issues and Electricity and Gas*.

13. In that paper the Commission decided to use five components in the assessments of Electricity and Gas; Water, Sanitation and Protection of the Environment; and Non-urban Transport categories:

- (i) fixed costs;
- (ii) regulation;
- (iii) concessions;
- (iv) general subsidies; and
- (v) economic development.

Protection of the environment

14. **1999 Review.** Protection of the environment expenses were included in this category in the 1999 Review. However, the assessment of disabilities did not specifically identify protection of the environment issues.

15. **Staff proposals.** In *Discussion Paper CGC 2002/35, Concessions and Other Community Service Obligations*, staff proposed that the protection of water resources for domestic and agricultural purposes be assessed as part of the general water and sewerage subsidy component because those expenses benefit everyone. Staff were not certain of the materiality of the other environment protection functions and proposed an equal per capita assessment of them.

16. **State views.** Western Australia said the protection of the environment costs were significant and should be separately recognised in the factor calculations, rather than being assessed through broad factors applying to the entire category.

17. Western Australia was also concerned about the proposed equal per capita assessment of protection of the environment services unrelated to water resource management. It said such expenditures were significant, have a strong regulatory and planning element and warranted a differential assessment.

18. Tasmania supported the proposal that protection of the environment expenses for agricultural and domestic purposes be assessed in the General Subsidies component. Tasmania said these expenses, some of which are made by local government, are not material enough to warrant a separate assessment.

19. **Analysis.** In the GFS data, expenses on protection of the environment are not separately identified from sanitation expenses. Analysis of information provided by States indicates that protection of the environment expenses relate to regulation and planning services and special environmental protection projects. States operate environmental protection agencies whose main task is regulation. The assessment undertaken in the regulation component would capture any disabilities associated with these expenses.

20. Environmental protection projects are diverse. They include such projects as purchasing environmentally sensitive coastal areas and restoration of damage to special environments. Identifying expenses related to environmental protection projects would be difficult because the amounts involved are not separately identified in GFS data.

21. **Commission's decision.** The Commission does not consider, on balance, that a clear conceptual case has been made for assessing protection of the environment expenses separately within the category. The limited information provided by States is sufficiently indicative of States' protection of the environment expenses being predominately regulation and planning related. The Commission considers that the additional complexity introduced by having a separate protection of the environment component is not warranted, and does not propose to assess protection of the environment separately within the category structure.

22. The Commission's decision concerning protection of the environment related expenses are summarised in Table 3.

Table 3 COMMISSION DECISION — PROTECTION OF THE ENVIRONMENT RELATED EXPENSE

Decision	Reason
To assess the protection of the environment related expenses as part of the regulation and general subsidies components.	The expenses are mainly regulatory in nature. Additional expense on specific environmental projects is not big and does not warrant a separate component.

Component weights

23. **Analysis.** Data in States' data returns, GFS data, States' budget reports and service provider annual reports were used to help allocate the expenses in the category to the components. Table 4 summarises the data. Data provided from States' data returns and budget reports were scaled to the amounts reported in GFS.

Table 4 EXPENSE DATA USED IN CALCULATING THE COMPONENT WEIGHTS, 2004 REVIEW

Component	NSW (\$m)	Vic (\$m)	Qld (\$m)	WA (\$m)	SA (\$m)	Tas (\$m)	ACT (\$m)	NT (\$m)	Aust (\$m)
Fixed costs and regulation ^(a)	101.45	59.70	74.78	20.54	22.36	9.18	2.59	0.78	291.39
Concessions	71.02	47.76	65.86	13.21	16.81	13.24	1.00	0.05	228.95
General subsidies and economic development ^(b)	118.70	21.09	124.87	34.59	62.54	1.09	0.00	0.42	363.29
Total	291.16	128.56	265.51	68.34	101.71	23.50	3.60	1.25	883.63

(a) Fixed costs and regulation expenses for New South Wales, Victoria and the ACT were estimates based on aggregate Australian data. They include fixed costs and regulation expenses relating to protection of the environment.

(b) Includes general subsidies expense relating to protection of the environment.

Source: States data returns, GFS and States' budget papers.

24. **Commission decision.** The Commission's decisions on component weights are summarised in Table 5. These decisions are based on:

- (i) the decisions recorded in the General Issues part of *Draft Assessment Paper CGC 2003/43, Concessions and Other Payments: General Issues and Electricity and Gas*;
- (ii) decisions made in relation to administrative scale (see *Draft Assessment Paper CGC 2003/60, Administrative Scale*); and
- (iii) data in Table 4.

25. For this category fixed costs were estimated at \$2 million per State (\$16 million in total). This represented 1.79 per cent of the total category expense based on GFS expense data. The component weight for regulation was calculated as the residual using the data in Table 4.

26. The component weights for general subsidies and economic development were estimated using judgement. The estimates recognised that some of the expenses identified by the States in Table 4 as general subsidies were in fact economic development expenses.

27. Because the level of subsidies and the amount of economic development expenses may change substantially from year to year, the component weights will be reviewed in each update. This will ensure that the assessment is consistent with the current circumstances of the States.

Table 5 COMMISSION DECISIONS – CATEGORY DEFINITION, ASSESSMENT STRUCTURE AND COMPONENT WEIGHTS

Decision	Reason
Assessment structure and component weights:	States continue to provide subsidies to public trading enterprises. While these policies persist it is appropriate to continue to assess disabilities for a general subsidies component. The purpose of economic development is different from that of general subsidies, warranting a separate component. Isolation, Land Rights and Native title were considered relevant because costs affected by those disabilities are included in this category.
fixed costs: 1.79%	
regulation: 31.18%	
concessions: 25.97%	
general subsidies: 40.59%	
economic development: 0.36%	
isolation: 0.08%	
land rights: 0.03%	
native title: 0.00%	

FIXED COSTS COMPONENT

28. This component consists of expenses on core head office functions relating to the administration, planning, regulation and subsidisation of water, sanitation and protection of the environment. Administrative scale and input costs factors have been assessed for the fixed cost component of this category. This component was not separately identified in the comparable 1999 Review category because the Commission thought the costs were included in the Regulatory and Other Services category.

Administrative scale — fixed cost component

29. **2004 Review.** *Draft Assessment Paper CGC 2003/60, Administrative Scale* discusses the issues raised by the States regarding the assessment of this factor. The paper sets out the Commission’s decisions on the general method of assessment adopted for the

2004 Review and on the size of the fixed cost component in each category. The States did not raise issues specific to this category.

30. The Commission has decided that administrative scale will be assessed for this category to recognise the unavoidable costs each State would incur to have the policy and administrative infrastructure necessary to provide the service regardless of the size of the task.

31. The administrative scale factors for this category, shown in Table 6, have been calculated using the 2004 Review general method. Fixed costs for this category have been estimated to be \$2 million per State. Total fixed costs for the category are \$16 million which represents 1.79 per cent of the category standard.

Table 6 ADMINISTRATIVE SCALE FACTORS — FIXED COST COMPONENT

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
1997-98	0.36858	0.50382	0.68027	1.28668	1.56812	4.92560	7.52310	12.32319
1998-99	0.36853	0.50445	0.67767	1.28097	1.57795	4.99478	7.55742	12.25346
1999-2000	0.36854	0.50478	0.67478	1.27836	1.58830	5.05782	7.57230	12.19839
2000-01	0.36846	0.50489	0.67161	1.27768	1.60144	5.12202	7.57722	12.18130
2001-02	0.36891	0.50461	0.66745	1.27717	1.61320	5.17750	7.59249	12.25311

32. The factor, which is based on State estimated resident populations, and the component weight will be updated annually.

Input costs — fixed cost component

33. **2004 Review.** *Discussion Paper CGC 2003/04, Input Costs* sets out the issues raised by the States regarding the assessment of wages and salaries costs. The paper sets out the Commission's proposals for the general method of assessment to be adopted for the 2004 Review. *Draft Assessment Paper CGC 2003/79, Input Costs - Electricity and Accommodation* sets out the issues raised by the States regarding the assessment of input costs relating to accommodation and electricity. The paper sets out the Commission's decisions on the general method of assessment to be adopted for the 2004 Review and on the size of the standard expense proportions in each category for accommodation costs and electricity costs. The States did not raise issues specific to this category.

34. The Commission considered that the prices of labour, accommodation and electricity used in providing scale-affected services differ across States for reasons beyond the control of individual States. It has therefore decided that input costs will be assessed for this component.

35. The input costs factors for the fixed cost component of this category, shown in Table 7, have been calculated according to the 2004 Review general methods. The

standard expense proportions applied were 80 per cent for wages and salaries, 2 per cent for accommodation and 1 per cent for electricity.

Table 7 INPUT COSTS FACTORS — FIXED COST EXPENSES COMPONENT

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
1997-98	1.03086	0.98776	0.98243	0.98229	0.97405	0.93225	1.00817	1.11439
1998-99	1.03267	0.98876	0.98050	0.97883	0.97213	0.92981	1.01243	1.10979
1999-2000	1.03546	0.98791	0.97763	0.98082	0.96857	0.92317	1.01680	1.10513
2000-01	1.03603	0.98930	0.97573	0.98076	0.96738	0.92031	1.01603	1.10244
2001-02	1.03498	0.99044	0.97446	0.98186	0.97135	0.92001	1.01306	1.09897

36. The factors will be updated annually. The proportions represented by wages and salaries, accommodation and electricity will not be re-examined until the next review.

REGULATION COMPONENT

37. This component consists of costs associated with the administration, planning, regulation and subsidisation of water, sanitation and protection of the environment (not including fixed costs). The Commission considered per capita costs in this component would vary between States in accordance with the size of the task and has assessed an economic environment factor to reflect that effect. Because costs in the component are dominated by wages and the services are provided throughout each State, it has assessed input costs and dispersion cost factors.

Economic environment

38. **1999 Review.** Economic environment disabilities were not assessed for any component of this category in the 1999 Review.

39. **Preliminary State views.** Queensland said that, in the interests of simplicity and consistency, the assessment framework for the services to industry component (now the two components of fixed costs and regulation) should mirror the proposal in *Discussion Paper CGC 2001/16, Administrative Scale*, regarding fixed and variable costs.

40. **Staff proposals.** In *Discussion Paper CGC 2002/35, Concessions and Other Community Service Obligations*, staff proposed that the economic environment factor would be assessed to recognise the size of the task. It proposed that the factor would be based on the number of non-metropolitan local government areas (because water and sewerage services in non-metropolitan areas are usually centred on local government areas) plus the number of metropolitan water and sewerage authorities.

41. **Further State views.** South Australia suggested the Commission ensure that the economic environment factor accurately reflected the relative size of the administrative/regulatory task, rather than State policy regarding service provision.

42. The Northern Territory supported the use of numbers of service providers to measure economic environment. It said that the use of customer numbers would not capture users accessing dam or bore water supplies which also need to be recorded and managed.

43. **Analysis.** The economic environment factor allows for the effects on the demand for State government regulatory services arising from the size or complexity of State economies. Costs include expenses on:

- (i) ensuring the welfare of industry employees and consumers of its products; and
- (ii) ensuring the industry and its producers adhere to standards and protect State environments and natural resources for future users.

44. Finding a policy neutral measure of economic environment is difficult. The size of the regulatory task is influenced by the number of service providers and the number of users of services. While expenses are influenced by the relative numbers of water and sewerage undertakings providing the service, these numbers would not be a policy neutral measure of demand for regulating services. This is because some State governments have restructured the industry, influencing the number of water and sewerage undertakings providing services. The number of users of the service is a policy neutral measure. Monitoring services to users is an integral part of ensuring that service providers comply with regulations. Given the virtually universal application of the service, the number of dwellings combined with the number of general business locations in each State provides a good indicator of the numbers of users of the service.

45. **Commission's decision.** The Commission has concluded that a conceptual case exists for assessing an economic environment factor because State government expenses on regulatory services and planning are influenced by the size of the service being regulated. The Commission considers that the impact of inter-State differences on State budgets is material.

46. After considering the influence that States' policies have on the alternative measures of activity, the Commission has decided to use the number of businesses, plus the number of dwellings, per capita in each State as the policy neutral measure of disability. There is consistent and comparable data to measure the number of businesses and the number of dwellings in each State.

47. The Commission's decision concerning the economic environment factor is summarised in Table 8.

Table 8 COMMISSION DECISION — REGULATION COMPONENT — ECONOMIC ENVIRONMENT FACTOR

Decision	Reason
To assess the economic environment based on the relative proportion of businesses and dwellings to population in each State.	The use of the number of businesses and dwellings provides the most policy neutral method of assessment.

48. **Method and results.** The economic environment factors for this component are shown in Table 9. They have been calculated from the relative proportion of businesses and dwellings to mean resident population in each State. Data on the number of businesses was derived from the ABS publication, *Australian Business Register*, June 2001. A better indicator of the influence of businesses on the regulation expenses would be the number and size of business locations but such data are not available.

Table 9 ECONOMIC ENVIRONMENT FACTOR — REGULATION COMPONENT

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
No of businesses and dwellings ('000)	2685	1974	1540	799	650	199	127	73	8048
Total pop ('000)	6332	4669	3518	1823	1469	459	309	184	18762
No of businesses and dwellings per population	0.42403	0.42278	0.43778	0.43833	0.44250	0.43365	0.41155	0.39713	0.42895
Factor	0.98852	0.98561	1.02059	1.02186	1.03159	1.01095	0.95944	0.92583	1.00000

Sources: ABS, 2001 Census for data on dwellings and population and *Australian Business Register*, June 2001.

49. **Updateability.** The data on dwellings is Census based and will not change in updates. The data on businesses and the population are updated each year by ABS and will change in updates.

Input costs — regulation component

50. **1999 Review.** The following standard expense proportions were applied to each of the factors assessed for this category:

- (i) wages and salaries 40 per cent;
- (ii) accommodation 2 per cent; and
- (iii) electricity 1 per cent.

51. **2004 Review.** The input costs factors for the Regulation component of this category have been calculated according to the general method outlined in *Discussion Paper CGC 2003/04 Input Costs* and in *Draft Assessment Paper CGC 2003/79, Input Costs – Electricity and Accommodation*. The standard expense proportions applied were 80 per cent for wages and salaries, 2 per cent for accommodation and 1 per cent for electricity. The input costs factors shown in Table 7 have been applied in this component. The weight applied to wages has been increased (compared with the 1999 Review) because regulation costs are very labour intensive. In the 1999 review, the proportion of wages in the component was considered to be relatively low as the component contained payments to individuals.

Dispersion

52. **1999 Review.** Dispersion disabilities were not assessed for any component of the comparable category in the 1999 Review because the category was considered to consist primarily of payments to individuals and service providers.

53. **2004 Review.** *Draft Assessment Paper CGC 2003/63, Dispersion* discusses the issues raised by the States regarding the assessment of the dispersion factor. The paper sets out the Commission’s decisions on the general method of assessment adopted for the 2004 Review and on the size of the standard expense proportions estimated for each of the nine elements of dispersion-affected expenses. Western Australia said that dispersion was a key driver of regulation costs.

54. The Commission noted that the expenses incurred in providing regulation services included costs that are affected by population dispersal. It has therefore decided that a dispersion disability would be assessed.

55. The dispersion factors for regulation have been calculated according to the 2004 Review general method. There were nine indexes within the dispersion factor for the 2004 Review. Table 10 shows the proportions of standard expenses estimated for each of the nine elements of dispersion-affected expenses for this component.

Table 10 DISPERSION COST WEIGHTS - REGULATION COMPONENT, 2004 REVIEW

Telecommunication		Freight, General	Air Travel	Road Travel		Repairs and Maintenance	Remote Staff Turnover	Locality Allowances
Voice	Non-voice			Inter Regional	Local			
0.0047	0.0005	0.00	0.0024	0.0030	0.0021	0.00	0.00	0.00

56. Table 11 shows the dispersion factors assessed for the regulation component for the 2004 Review.

Table 11 DISPERSION FACTORS - REGULATION COMPONENT, 2004 REVIEW

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
1997-98	1.00021	0.99678	1.00388	1.00167	0.99744	0.99980	0.99118	1.02068
1998-99	1.00020	0.99677	1.00387	1.00166	0.99743	0.99979	0.99118	1.02067
1999-2000	1.00019	0.99677	1.00386	1.00165	0.99742	0.99978	0.99117	1.02066
2000-01	1.00019	0.99676	1.00386	1.00165	0.99742	0.99978	0.99116	1.02066
2001-02	1.00018	0.99676	1.00385	1.00164	0.99741	0.99977	0.99116	1.02065

57. Neither the factor nor the dispersion costs weights will be updated before the next review¹.

CONCESSIONS COMPONENT

58. This component consists of payments made for the benefit of specific sub-groups of the user population (for example, pensioners). A socio-demographic factor has been assessed.

Socio-demographic composition

59. **1999 Review.** In the 1999 Review, concessions were assessed on the basis of the relevant population receiving concessions on service charges. Those in receipt of an Australian Government pension were eligible for tariff concessions. The population of those in receipt of a Australian Government pension per capita was used to assess the pensioner concessions component.

60. **Preliminary State views.** South Australia and Tasmania said that the relevant population should continue to be based on the numbers of Australian Government pensioners as it reflected the relative need of States to provide concessions.

61. The Northern Territory argued that the assessment should include allowances for the different rates of consumption associated with people receiving concessions.

62. **Staff proposals.** Staff proposed that the numbers of Australian Government Pensioner recipients, as well as Health Care and Seniors Health Care Card holders should be used as the relevant population, with no differential weight for levels of use or cost differences. Staff considered that an adjustment for propensity to use services was not required because the average policy was to provide a capped level of concession.

¹ Different factor values are shown for each year because the factor is rebased to the mean resident population each year.

63. **Further State views.** Western Australia said the different costs of providing water services across States (in metropolitan and dispersed areas) had a material impact on the cost of concessions.

64. **Analysis.** It is a common policy across all States to provide concessions for certain groups of consumers, principally concession card holders. Although the Australian Government has offered funds to the States to encourage them to extend concessions to Australian Government Seniors Health Care Card Holders, we understand that the States have not yet decided to treat this group as eligible for concessions on water and sewerage services.

65. We consider that it is unnecessary to include an allowance for the impact of differences in the level of water consumption because:

- (i) most concessions are applied to fixed supply charges; and
- (ii) any concession attached to variable charges is usually capped at a maximum level, such that most concessions are paid at that level.

66. The concession expenses in each State are determined by State policies, which do not necessarily reflect the amount of water consumed. The standard policy is to apply the same criteria across the State, irrespective of regional impacts on the level of water consumed. States' expenses on concessions and net per capita household water consumption are shown in Table 12. The data indicate that, in most cases, the concession expenses per pensioner in each State do not vary with water consumption. This comparison assumes that consumption by concession users mirrors general user consumption.

Table 12 STATES' CONCESSION EXPENSES AND HOUSEHOLD WATER CONSUMPTION RATES

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Total expense on concessions ^(a) (\$m)	70	60	48	29	25	14	3	0.58
No of pensioners ^(b) ('000)	1 504	1 180	911	436	420	147	47	43
Expense per pensioner (\$)	47	51	53	67	58	96	69	14
Net per capita Household Water Consumption (HWC) ^(c) (kl)	87	91	117	117	90	68	91	169

Sources: (a) States' data returns.
 (b) Department of Family and Community Services, Special Data Request.
 (c) ABS Census 2001 and Water Account for Australia, 1993-94 to 1996-97, Table 1.23.

67. Since concession payments do not vary significantly with water consumed, we conclude that the only significant factor influencing concession costs is the proportion of concession households in each State.

68. **Commission's decision.** The Commission has concluded that a conceptual case exists for assessing the concessions component using a socio-demographic composition factor. This is because State government expenses on concessions to eligible users of services are influenced by the size of the concession population being subsidised.

The Commission considers that differences in the numbers of concession card holders across States mean that the different impact on State budgets of providing concessions is material. Reliable data are available annually to measure the number of concession card holders.

69. Since it is not as yet the States' standard policy to provide concessions to holders of Australian Government Seniors Health Care Cards, the Commission does not propose to include holders of those cards in the eligible concession population. If, at a future date, it becomes standard policy to extend the coverage of concessions to holders of Australian Government Seniors Health Care Cards, then we will include them in the eligible concession population at that time. It has decided to base the factor on numbers of Australian Government Pensioner Concession and Health Care card holders.

70. The Commission considers that a conceptual case does not exist for differentially assessing concessions on water and sewerage services based on the different costs of providing these services. The evidence indicates that it is the standard policy of States to provide a similar level of concession for each eligible concession customer in the State.

71. The Commission's decisions are summarised in Table 13.

Table 13 COMMISSION DECISIONS — SOCIO-DEMOGRAPHIC COMPOSITION, CONCESSIONS COMPONENT

Decisions	Reason
Assess a socio-demographic composition factor for the concessions component based on the number of people in receipt of a Australian Government Pensioner Concession Card or a Australian Government Health Care Card.	It is the standard policy of States to provide concessions to people in receipt of a Australian Government Pensioner Concession and Health Care card.
Not to differentially assess concessions based on the different costs of providing these services.	The different costs of providing services across States do not have a material impact on the cost of concessions for these services. Any differences in levels of concessions paid are due to State policy decisions.

72. **Method and results.** Table 14 calculates the factor for 2000-01.

Table 14 CONCESSIONS FACTOR — WATER, SANITATION AND PROTECTION OF THE ENVIRONMENT

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Health Care Card	477612	417167	339010	167306	134522	54223	17176	24607	1631623
Pensioner Concession Card	1025958	762399	572140	268480	285828	93006	30007	17893	3055711
Total concession card holders ^(a)	1503570	1179566	911150	435786	420350	147229	47183	42500	4687334
Mean Resident Population ^(b)	6640909	4854989	3670473	1918199	1518642	473177	322671	199939	19598999
Proportion	0.22641	0.24296	0.24824	0.22718	0.27679	0.31115	0.14623	0.21256	0.23916
Factor	0.94668	1.01588	1.03795	0.94992	1.15735	1.30100	0.61141	0.88879	1.00000

(a) As at 1st October 2002.

(b) ABS, 2001 Census.

Source: Department of Family and Community Services, Special Data Return and ABS 2001 Census.

73. **Updateability.** In an update, the factor will change to reflect changes in the total number of concession card holders in each State and changes in the mean resident population. The relevant information is easily accessible — mean resident population from the ABS and concession card holders from the Australian Government Department of Family and Community Services.

GENERAL SUBSIDIES COMPONENT

74. This component consists of payments in the nature of a subsidy made for the benefit of all users of a service (for example, supplying drinking water in all inhabited areas). A water and sewerage cost factor has been assessed.

Water and sewerage cost factor

75. **1999 Review.** In the 1999 Review assessment, a socio-demographic composition factor was assessed based on the proportions of total population in each State residing outside urban centres with populations of 50 000 or more. A physical environment factor was also assessed using State populations in different major river catchments to

reflect the additional costs of extracting and treating groundwater in those catchments, and the additional costs of piping water to locations distant from water sources.

76. ***Preliminary State views.*** Victoria commented that a differential assessment for subsidies was not necessary because of the move to full cost-recovery by water authorities. Western Australia and South Australia said that not all States were moving to full cost recovery and that this was permissible under National Competition Policy.

77. South Australia supported the updating or continuation of the 1999 Review assessment, arguing that despite its limitations, the factors gave a realistic outcome.

78. Queensland said the assessment should capture the full range of factors that influenced costs. This was because these factors would influence the level of CSOs required to provide an average level of service.

79. The specific issues raised and information provided by States related to:

- (i) remoteness;
- (ii) community size;
- (iii) water quality;
- (iv) water availability;
- (v) sewerage disposal; and
- (vi) the impact of physical environment on asset life.

80. On *remoteness*, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory cited services to remote communities as requiring subsidies.

81. On *community size*, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory said that services to smaller communities required subsidies.

82. Tasmania supported the inclusion of a disability assessment based on the population outside larger urban centres. It said that the costs of water, sanitation and environmental protection services in the larger metropolitan centres could be fully recovered on a user pays basis, so that State governments only need to incur costs for services to small rural population centres.

83. Western Australia said that low economies of scale (reflecting low customer densities) for water and sewerage infrastructure, servicing hundreds of small towns and communities spread over a vast geographic area, contributed to the cost.

84. On *water quality*, Queensland, Western Australia, South Australia and the Northern Territory indicated that low water quality added to the cost of water supply.

85. Western Australia indicated that the quality of some local/regional water supplies was marginal, and required expensive treatment to meet drinking water standards (that is, to ensure compliance with the 1996 Australian Drinking Water Guidelines). It suggested that the Commission use the Australian Government's distribution of funds under the *National Action Plan for Salinity and Water Quality* guidelines as a measure of needs.

86. South Australia indicated that most of South Australia suffers from poor water quality, necessitating extensive treatment to reach health standards. It said that the salinity and other problems of the River Murray have been well documented.

87. On *water availability*, Western Australia, South Australia and the Northern Territory indicated that low availability of surface and ground water added to the cost of water supply because supplies had to be either pumped from underground or piped in from external sources.

88. Tasmania argued that the cost of water supply represented only a relatively small proportion of the total expenses because water supply costs were more easily recovered than sanitation costs. As a result, Tasmania suggested that the current physical environment factor, which related to water supply cost, should either be discounted or applied to a smaller proportion of the expenditure component.

89. On *sewerage disposal in fragile environments*, Queensland and South Australia indicated that the need for sewerage disposal near or in fragile environments added to the cost of service. Queensland said that the proximity of the Great Barrier Reef added to its cost of sewerage treatment.

90. South Australia indicated that fragile environments included residential water supply catchments. It said that the assessment structure should be able to account for disabilities relating to the costs of sewerage treatment in urban, as well as non-urban, locations. It said that Adelaide's sewerage treatment cost is relatively high because of its location near a sheltered marine environment and because of saline water intrusion.

91. On *the impact of physical environment on asset life*, Queensland said that tropical environments increased subsidies because climate influenced asset life and thus depreciation costs.

92. **Staff proposals.** In *Discussion Paper CGC 2002/35, Concessions and Other Community Service Obligations*, staff set out its understanding that the standard policy of States was to cover metropolitan costs with an appropriate tariff structure.

93. Staff proposed to investigate the possibility of assessing general subsidies based on the additional costs required to provide services in non-metropolitan areas. Staff identified the size, location and physical environment of communities as major influences on these increased costs. A data request was sent to States asking for information regarding the impact of these influences on the delivery of services. Specifically, the request sought details of costs associated with:

- (i) community size;

- (ii) location;
- (iii) marginal water quality;
- (iv) bore water supplied;
- (v) pipeline water supplied; and
- (vi) sewerage disposal in fragile environments.

94. **Further State views.** Victoria said the Commission should take into consideration the additional costs faced by Victoria due to the specific environmental characteristics of Port Phillip Bay, in respect of the disposal of sewerage from metropolitan Melbourne.

95. Queensland supported the proposed physical environment factor. However, it suggested that where practicable, locations with unique disabilities should receive additional weighting whether or not they were within metropolitan or non-metropolitan areas. Queensland said it experienced unique disabilities in the provision of water, sewerage and protection of the environment services which should be recognised in the assessment.

96. Western Australia said the assessment of general subsidies for water needs to reflect the factors contributing to costs in each State.

97. South Australia said the general subsidies component of the Water, Sanitation and Protection of the Environment assessment must at the very least include a physical environment factor that allows for water quality and water availability.

98. Tasmania reiterated the argument in its main submission, that the general subsidy factor should be based on the population outside larger urban centres because the costs of water, sanitation and environmental protection services in the major centres would be fully recovered on a user pays basis. Tasmania was not aware of any unique disabilities impacting on the cost of these services in metropolitan areas and accordingly such services should be beyond the scope of the assessment. Tasmania supported the argument that inland areas experience similar problems to coastal regions adjacent to marine parks when disposing of sewerage.

99. The ACT supported a differential assessment of the dispersal of sewerage in fragile environments. The ACT said it experienced additional costs in treating sewerage because of the ACT's location near the headwaters of the major river system of south eastern Australia.

100. The Northern Territory supported the measurement of disabilities associated with water quality, water availability, and sewerage disposal in fragile environments in the Water, Sanitation and Protection of the Environment category.

101. **Analysis.** The States suggested a wide range of non-policy influences on the cost of water and sewerage services. The key assessment question is the extent to which these influences affect the levels of subsidy which each State would provide if standard

policies operated. From the information provided by the States it appears that subsidies are commonly provided for services in non-metropolitan areas. They are not commonly provided in large urban areas. This sets the boundaries for the assessment of disabilities.

102. Because they are not generally subsidised, influences affecting the cost of provision of metropolitan services, such as the effects of salinity on water quality and of fragile environments on the costs of metropolitan sewerage disposal, would therefore be beyond the scope of the assessment.

103. From the information provided by the States, we have concluded that subsidies are not targeted to specific elements of the operating costs of water and sewerage in non-metropolitan areas. They are aimed at keeping costs for consumers at a reasonable level. On this basis, subsidy levels will reflect either:

- (i) the standard difference between the cost of providing the service and a standard metropolitan cost; or
- (ii) a range of factors contributing to that difference:
 - costs associated with the provision of services to small population centres (service delivery scale);
 - technology required in different areas because of differences in the availability or quality of water, and discharge environments;
 - population dispersion;
 - input costs; and
 - physical environment affects on rates of depreciation of assets.

104. Queensland, Western Australia and the Northern Territory provided the requested data. Their responses are summarised in Attachment A. The ACT does not have relevant conditions.

105. Data provided by States² indicate that, in most States, tariffs are set at levels that cover the cost of supply of services to urban centres where populations exceed 50 000. Data also indicate that costs of supply to population centres with 50 000 or less are subsidised and that the level of subsidy is influenced by the relative size and remoteness of the population centre. Based on this information the relevant population for the assessment of general subsidies can be defined as the non-metropolitan population in centres which are smaller than 50 000.

106. Outside major city regions, a population centre's size and its level of remoteness are highly correlated. Measuring a cost weight for either adequately accounts

² Table A3 of *Discussion Paper CGC 2002/35, Concessions and Community Service Obligations*, summarises State data.

for the costs associated with both. The average centre size by each Accessibility and Remoteness Index of Australia (ARIA) region is shown below:

- (i) major cities 129 804;
- (ii) inner regional 3 582;
- (iii) outer regional 2 580;
- (iv) remote 1 379; and
- (v) very remote 438.

107. States' data suggested general subsidies differ because of:

- (i) the general costs of supplying water to, or disposing of sewerage for, non-metropolitan centres with populations less than 50 000 people (the general costs include the effects of service delivery scale, dispersion and input costs); and
- (ii) the physical environment costs which are specific to particular areas due to the different technology in treatments associated with processing water of poor quality or to overcome the low availability of water.

108. *Subsidies by region.* Table 15 shows relative cost weights for subsidies classified by the relative accessibility of the regions in which people live. Those weights were calculated using State data on service costs per customer (see Attachment A). They show that major cities recover costs and no subsidies are provided. They also show that subsidies are provided in more remote regions.

Table 15 COST WEIGHTS FOR SUBSIDIES BY STATE AND REGION

ARIA region	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Weighted average	Regional weights ^(a)
Major city	0	0	0	0	0	0	0	0	0	0.00
Inner regional	0	0	0	0.16	0.1	0	0	0.2	0.02	1.00
Outer regional	0.35	0.35	0.33	0.43	0.4	0.35	0.35	0.6	0.36	18.00
Remote	1	1	1.75	1.02	1	1	1	1.18	1.21	60.50
Very remote	1.5	1.5	3.12	1.02	1.5	2	1.5	1.53	1.80	90.00

(a) Calculated by expressing the weighted average for each region as a proportion of the weighted average for the inner region.

Source: Data supplied by States (see Attachment A). Where data was not supplied directly by States or not directly applicable, the regional cost weights were imputed from the aggregate of States' data.

109. Table 15 also shows the weighted average cost of subsidies and regional cost weights applicable, given those cost weights. The weighted average for each region classification was calculated using the regional population data shown in Table 16.

Table 16 RELEVANT POPULATION DISTRIBUTION, 2001

Region	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
	('000)	('000)	('000)	('000)	('000)	('000)	('000)	('000)	('000)
Major city	4421	3269	1897	1269	1043	155	310	97	12461
Inner regional	722	812	674	160	141	186	0	6	2701
Outer regional	626	138	504	134	102	18	0	10	1532
Remote	25	2	43	71	16	0	0	22	179
Very remote	3	0	17	23	3	1	0	10	57
Total ^(a)	5797	4221	3136	1657	1305	360	310	145	16931

(a) The relevant population includes the population residing in centres with greater than 200 people and excludes Indigenous populations in remote and very remote areas.

Source: ABS 2001 Census data and ARIA special data set.

110. *Sewerage disposal.* States indicated that in most regions, sewerage disposal contributed significantly to the cost of service. Data provided indicated that sewerage disposal accounted for 40 per cent of the total cost of water and sewerage services. We have assumed a similar level of influence on subsidy levels. Regional and physical environment influences impact on the cost of subsidising sewerage services. While the regional influences can be measured, the influence of the variety of unique physical environments is not measurable.

111. *Water quality and water availability.* The States' data demonstrated that where water quality was such that it required additional treatment, additional subsidy expenses were required. Similarly, where water availability was such that it required supplementation through either importing water via pipelines or using bores to access artesian supplies, additional subsidy expenses were required.

112. The data supplied by States indicated that varying water availability and water quality in river drainage basins have a differential impact on State budgets. The Commission considers these impacts to be material. A satisfactory method of calculating a disability factor is available. Standard drainage basin cost weights, which cover the additional costs of subsidies because of the differences in the costs of supplying adequate water of acceptable quality, can be estimated. These can be applied to State populations residing in the respective river drainage divisions. Data on Australia's major river drainage divisions indicate that the availability and quality of water differ between basins.

113. *Summary.* Calculating a composite disability factor would incorporate the disabilities due to location and physical environment. The disabilities of respective Urban Centre /Locality (UC/L) can be measured using location weights for assessing sewerage services disabilities and using location and physical environment weights for assessing water services disabilities.

114. **Commission's decision.** The Commission has concluded that a conceptual case exists for assessing a water and sewerage cost factor because consumers outside the major city regions are generally subsidized. State costs vary depending on the population in centres of less than 50 000, the size of population centres they live in, where they are located and the quality and availability of water supplies they can access. The Commission notes that the impacts, particularly for some States, are material.

115. The conceptual case is supported by data that establish how subsidies vary, on average, with where people live, the remoteness of the regions in which they live and the water quality and availability of those regions. The Commission is satisfied the data are representative and provide a reasonable basis for measuring States' relative disabilities in the provision of general subsidies.

116. The Commission's decision is summarised in Table 17.

Table 17 COMMISSION DECISION — GENERAL SUBSIDIES EXPENSES — SOCIO-DEMOGRAPHIC COMPOSITION FACTOR

Decisions	Reason
<p>A water and sewerage cost factor will be assessed based on a composite factor which measures the influence of:</p> <ul style="list-style-type: none"> • community size and location; • water quality and availability; and • the community location influences on sewerage disposal costs. 	<p>In areas of 50 000 or more people, States are able to recover costs of providing water of adequate quality through applying appropriate tariffs.</p> <p>The data on regional based expenses indicate that the accessibility of populations impacts on subsidies required to provide services.</p> <p>States experience additional expenses specific to supplying water to regions where water quality and water availability are below adequate standards and the economies of scale are such that the additional costs cannot be recouped through applying reasonable tariffs.</p> <p>Regional differences in costs for sewerage disposal are apparent and measurable, however unique physical environment influences are not.</p>

117. **Method and results.** The water and sewerage cost factor was calculated as a cost weighted relevant population for each State expressed as a proportion of the total population in each State.

118. The cost influences recognised were:

- (i) UC/L size and location;
- (ii) water quality; and
- (iii) water availability.

119. Sewerage costs for each UC/L were estimated to be 40 per cent of total costs. This estimate was based on data supplied by States.

120. *Relevant population.* The relevant population was defined as the population in UC/Ls that were less than 50 000. UC/Ls with populations greater than or equal to 50 000 were excluded. Indigenous people residing in remote and very remote regions were excluded because the expenses relevant to them are assessed in the Services to Indigenous Communities category (see *Draft Assessment Paper CGC 200/34, Services to Indigenous Communities*).

121. *Location.* Each UC/L population was weighted according to its location. Location by remoteness region was also used as a proxy for centre size. The location weights used were those shown in Table 15.

122. *Water quality and water availability.* UC/Ls were weighted according to the quality and availability of water in their respective river drainage divisions. Data on quality and availability of water was sourced from *The Macquarie World Atlas*³. An index for each river drainage division was calculated using indices of water quality and surface water and groundwater supplies.

³ Macquarie Library, *The Macquarie World Atlas, 1996 ed.*, pp158-9.

Table 18 WATER QUALITY AND WATER AVAILABILITY

River Drainage Basin	Surface water availability level ^(a)	Groundwater availability level ^(b)	Total water availability level ^(c)	Water quality level ^(d)
North-East Coast	1	1	1	1
South-East Coast	1	1	1	1
Tasmanian	1	1	1	1
Murray-Darling	1	1	1	2
South Australian Gulf	3	2	4	2
South -West Coast	2	1	2	2
Indian Ocean	2	2	3	2
Timor Sea	1	1	1	1
Gulf of Carpentaria	1	1	1	1
Lake Eyre	2	1	2	2
Bulloo-Bancania	3	2	4	2
Western Plateau	3	1	3	2

- (a) Surface water availability levels: 1 = low; 2 = medium; 3 = high. The levels were based on mean annual quantity of surface water in each drainage division. Low surface water availability was indicated by runoff less than one million megalitres. Medium surface water availability was indicated by runoff between one million megalitres and 10 million megalitres. High surface water availability was indicated by runoff greater than 10 million megalitres .
- (b) Groundwater availability levels: 1 = low; 2 = adequate. The levels were based on possible annual yield of all groundwater in each drainage division. Adequate availability was indicated by a yield greater than one million megalitres.
- (c) Total water availability was determined by the combination of surface and ground water available. Total water availability level = surface water availability level + groundwater availability level – 1.
- (d) Adequate water quality levels: 1 = inadequate; 2 = adequate. Adequate water quality was determined by at least 50 per cent of the region not having at least 10 000 megalitres per km² of water containing less than 1 000 milligrams per litre of dissolved solids.

Source: Macquarie Library, *The Macquarie World Atlas, 1996*, pp158-9.

123. The cost weights for water quality and water availability were derived from data supplied by States. Towns in specific drainage divisions were identified. The average cost associated with water quality and water availability to those towns was used as the basis for determining the cost weights for the water quality and water availability levels that applied in those drainage divisions. These cost weights were used across all drainage divisions as the standard cost weights for the respective water quality and water availability levels. Queensland, Western Australia and the Northern Territory provided the relevant data in deriving the cost weights. The weights are sensitive to data and will be reviewed in the light of any additional data provided. The derived weights are shown in Table 19.

Table 19 COST WEIGHTS FOR WATER QUALITY AND WATER AVAILABILITY

Water Availability		Water Quality	
Level	Weight	Level	Weight
1	1	1	1
2	1.2	2	2
3	2		
4	3		

124. The derived drainage division cost weights for water availability and water quality are shown in Table 20.

Table 20 DRAINAGE DIVISION COST WEIGHTS

Index Number	Drainage Division Name	Weights		
		Availability (a)	Quality (q)	Physical Environment (=a+q-1)
1	North-East Coast	1	1	1
2	South-East Coast	1	1	1
3	Tasmanian	1	1	1
4	Murray-Darling	1	2	2
5	South Australian Gulf	3	2	4
6	South -West Coast	1.2	2	2.2
7	Indian Ocean	2	2	3
8	Timor Sea	1	1	1
9	Gulf of Carpentaria	1	1	1
10	Lake Eyre	1.2	2	2.2
11	Bulloo-Bancania	3	2	4
12	Western Plateau	2	2	3

125. *Factor calculation.* The location of each UC/L was identified, both in terms of its accessibility/remoteness region and its drainage division. Its accessibility/remoteness region determined its relevant regional weight. Its drainage division determined its relevant physical environment weight. The regional weights used are shown in Table 15. The physical environment weights used are shown in Table 20. The weighted population for each UC/L with a population less than 50 000 was derived using the following equation:

$$\text{WEIGHTED POPULATION} = \text{Population} * (0.6 * \text{WATER WEIGHT} + 0.4 * \text{SEWERAGE WEIGHT}),$$

where WATER WEIGHT = (Physical Environment Weight + Regional Weight -1)

and SEWERAGE WEIGHT = Regional Weight.

126. The weighted population was divided by the Census population to calculate the factors. The factors are shown in Table 21.

Table 21 WATER AND SEWERAGE COST FACTOR

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
1997	0.92068	0.33140	0.65665	2.36260	2.68686	0.19973	0.00000	3.79545
1998	0.92068	0.33140	0.65665	2.36260	2.68686	0.19973	0.00000	3.79545
1999	0.92068	0.33140	0.65665	2.36260	2.68686	0.19973	0.00000	3.79545
2000	0.92068	0.33140	0.65665	2.36260	2.68686	0.19973	0.00000	3.79545
2001	0.92068	0.33140	0.65665	2.36260	2.68686	0.19973	0.00000	3.79545

127. **Reality check.** The factors for South Australia, Western Australia and the Northern Territory are higher than the other States because of the general lack of readily available water of reasonable quality in the rural areas of those States. The Northern Territory has additional costs associated with its high proportion of remote population.

128. **Updateability.** The factor calculations include population data in each drainage division. These data can only be estimated from Census data. The relative water quality of water available in the respective drainage is not expected to change. However, the sources of data will be monitored and data updated when possible.

ECONOMIC DEVELOPMENT COMPONENT

129. This component consists of expenses intended to improve the market position and/or the financial circumstances of industries, specific firms or regions.

130. **1999 Review.** Economic development (termed industry assistance) represented 24.93 per cent of the standard for this category. It was assessed equal per capita.

131. **Preliminary State views.** No State commented.

132. **Staff proposals.** In *Discussion Paper CGC 2002/35, Concessions and Other Community Service Obligations*, staff proposed that any decision the Commission made in relation to the assessment of economic development would be applied in this component.

133. **Analysis.** *Discussion Paper CGC 2003/5, Economic Development*, was distributed to States on 18 June 2003. It said the Commission staff would recommend to the Commission that economic development expenses continue to be assessed by the equal per capita method.

134. **Commission decision.** Based on the conclusions in *Discussion Paper CGC 2003/5, Economic Development*, the Commission proposes to assess the economic development component equal per capita, as shown in Table 22.

Table 22 COMMISSION DECISION —ECONOMIC DEVELOPMENT EXPENSES

Decision	Reason
Economic development expenses will be assessed equal per capita.	This treatment is consistent with the general approach adopted for economic development expenses.

ISOLATION

135. **1999 Review.** The isolation factor was assessed in the 1999 Review to account for differences in per capita costs of service provision for some States because of their economic and geographical isolation from the main interstate sources of supply in south eastern Australia. It reflected the combined effect of isolation on labour-related costs, interstate freight costs, professional infrastructure costs, commercial goods costs, airfares, travel allowances and other travel-related subsidies. The isolation-affected expenses component represented 0.23 per cent of expenses in this category.

136. **2004 Review.** *Draft Assessment Paper CGC 2003/65, Isolation* discusses the issues raised by the States regarding the assessment of isolation. The paper sets out the Commission's decisions on the general method of assessment adopted for the 2004 Review and on the size of the isolation-affected expenses component for relevant categories. The States did not raise issues specific to this category.

137. The isolation factors for the isolation component, shown in Table 23, have been calculated according to the 2004 Review general method. Isolation-affected expenses for this category have been estimated to be 0.08 per cent of the category standard.

Table 23 ISOLATION FACTORS — ISOLATION COMPONENT

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
All years	0.05107	0.10737	0.17783	0.74776	0.56469	3.49490	1.51842	68.27218

138. The factor and component weight will not be updated until the next review. This means that isolation-affected expenses will grow at the same rate as category expenses.

LAND RIGHTS

139. **1999 Review.** The land rights factor was assessed to take account of the additional costs incurred by the Northern Territory arising from the operation of the Commonwealth *Aboriginal Land Rights (Northern Territory) Act 1976 (ALRA)*.

140. **2004 Review.** *Draft Assessment Paper 2003/69, Land Rights*, discusses the issues raised by the States regarding the assessment of this factor. The paper sets out the Commission's decisions on the general method of assessment adopted for the 2004 Review and the categories in which the factor would be assessed.

141. Land rights-affected expenses for this category have been estimated to be \$0.21 million, which represents 0.0026 per cent of the category standard. Table 24 shows the 2004 Review disability factors implied by those levels of costs.

142. The factors and the component weight determined by the expense proportion will be updated annually.

Table 24 LAND RIGHTS FACTORS

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
1997-98	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	98.58552
1998-99	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	98.02771
1999-2000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	97.58712
2000-01	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	97.45037
2001-02	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	98.02489

NATIVE TITLE

143. **1999 Review.** Native title factors were assessed to allow for the additional costs incurred by the States arising from the operation of the Commonwealth *Native Title Act 1993*.

144. **2004 Review.** *Draft Assessment Paper CGC 2003/70, Native Title Assessment*, discusses the issues raised by the States regarding the assessment of this factor. The paper sets out the Commission's decisions on the general method of assessment adopted for the 2004 Review and the categories in which the factor has been assessed.

145. Native title-affected expenses for this category in 2001-02 have been estimated to be \$0.034 million, which represents 0.000038 per cent of the category standard. Table 25 shows the 2004 Review calculation of the factor for 2001-02 implied by those expenses.

146. The factors and the component weight determined by the expense proportion will be updated annually.

Table 25 NATIVE TITLE FACTORS, 2001-02

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Administration expenses – actual (\$'000)	500	2480	20206	14859	6718	204	204	4853	50024
Compensation expenses – actual (\$'000)	765	0	0	34	0	0	0	4650	5449
Total expenses	1265	2480	20206	14893	6718	204	204	9503	55473
Factors	0.06730	0.18047	1.94495	2.74309	1.56301	0.15232	0.22312	16.79242	1.00000

TREATMENT OF USER CHARGES

147. Expenses for this category are net of user charges. Any dividend receipts, tax equivalent payments or licence fees deemed to be tax equivalents have been allocated to the Contributions by Trading Enterprises category.

SUMMARY OF RESULTS

148. Table 26 summarises the assessment structure for the draft assessment for the 2004 Review.

Table 26 WATER, SANITATION AND PROTECTION OF THE ENVIRONMENT,
PROPOSED ASSESSMENT STRUCTURE FOR THE 2004 REVIEW

Expenses component	Component weight	Factors	Basis of calculation
	%		
Fixed costs	1.79	Administrative scale	General method.
		Input costs	General method with weights of 80% for wages, 2% for accommodation and 1% for electricity.
Regulation	31.18	Economic environment	Based on the relative proportion of businesses and dwellings to population in each State.
		Input costs	General method with weights of 80% for wages, 2% for accommodation and 1% for electricity.
		Dispersion	General Method.
Concessions	25.97	Socio-demographic composition	Based on the proportion of people who have a Australian Government Health Care Card or a Pensioner Card.
General Subsidies	40.59	Water and sewerage cost	Based on the relative proportion of the weighted populations of each State. State populations are weighted using a cost weighted index of size, location, water availability and water quality applied to UCL populations.
Economic Development	0.36	Equal per capita assessment.	
Isolation	0.08	Isolation	General method.
Land rights	0.03	Land rights	General method.
Native title	0.00	Native title	General method.

Calculating the category factor

149. Table 27 summarises the components, component weights and disability factors assessed for this category for 2001-02. It shows the calculation of the category factor.

Table 27 DERIVATION OF CATEGORY FACTOR — WATER, SANITATION AND PROTECTION OF THE ENVIRONMENT

Factors	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Fixed Costs (fc_comp) (component weight =1.79%)								
Administrative Scale (s)	0.36891	0.50461	0.66745	1.27717	1.61320	5.17750	7.59249	12.25311
Input Costs (ic_fc)	1.03498	0.99044	0.97446	0.98186	0.97135	0.92001	1.01306	1.09897
Component factor	0.38252	0.50072	0.65162	1.25634	1.56990	4.77221	7.70596	13.49087
Cont. to category factor	0.00685	0.00896	0.01166	0.02249	0.02810	0.08542	0.13794	0.24149
Regulation (reg_comp) (component weight =31.18%)								
Dispersion (d)	1.00018	0.99676	1.00385	1.00164	0.99741	0.99977	0.99116	1.02065
Input Costs (ic_fc)	1.03498	0.99044	0.97446	0.98186	0.97135	0.92001	1.01306	1.09897
Economic Environment	0.98852	0.98561	1.02059	1.02186	1.03159	1.01095	0.95944	0.92583
Component factor	1.02387	0.97355	0.99902	1.00558	0.99994	0.93038	0.96403	1.03717
Cont. to category factor	0.31919	0.30350	0.31145	0.31349	0.31173	0.29005	0.30054	0.32334
Concessions (conc_comp) (component weight =25.97%)								
Socio-demographic Composition (sdc)	0.94668	1.01588	1.03795	0.94992	1.15735	1.30100	0.61141	0.88879
Component factor	0.94668	1.01588	1.03795	0.94992	1.15735	1.30100	0.61141	0.88879
Cont. to category factor	0.24588	0.26385	0.26958	0.24672	0.30059	0.33790	0.15880	0.23084
General Subsidies (gensub_comp) (component weight =40.59%)								
Water and sewerage cost (water_sewer_cost)	0.92068	0.33140	0.65665	2.36260	2.68686	0.19973	0.00000	3.79545
Component factor	0.92068	0.33140	0.65665	2.36260	2.68686	0.19973	0.00000	3.79545
Cont. to category factor	0.37374	0.13453	0.26656	0.95907	1.09070	0.08108	0.00000	1.54072
Economic Development (ecodev_comp) (component weight =0.36%)								
EPC Factor (epc)	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
Component factor	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
Cont. to category factor	0.00363	0.00363	0.00363	0.00363	0.00363	0.00363	0.00363	0.00363
Land Rights (lr) (component weight =0.03%)								
Land Rights Factor (lr)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	98.02489
Component factor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	98.02489
Cont. to category factor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.02549
Native Title (nt) (component weight =0.00%)								
Native Title Factor (nt)	0.06730	0.18047	1.94495	2.74309	1.56301	0.15232	0.22312	16.79242
Component factor	0.06730	0.18047	1.94495	2.74309	1.56301	0.15232	0.22312	16.79242
Cont. to category factor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Isolation (iso) (component weight =0.08%)								
Isolation Factor (iso)	0.05107	0.10737	0.17783	0.74776	0.56469	3.49490	1.51842	68.27218
Component factor	0.05107	0.10737	0.17783	0.74776	0.56469	3.49490	1.51842	68.27218
Cont. to category factor	0.00004	0.00009	0.00014	0.00060	0.00045	0.00280	0.00121	0.05462
CATEGORY FACTOR	0.94932	0.71456	0.86302	1.54599	1.73520	0.80087	0.60212	2.42011

Calculation formula

150. The following formulas were used to calculate the contribution of each expenses component to the overall category factor. In each case, the contributions are calculated as the expenses component weight multiplied by the component factor (the bracketed terms in the formulas). Each contribution to category factor was rescaled to ensure that the sum of standardised expenses equals the sum of actual expenses.

$$\begin{aligned}
 \text{fc_comp} &= 0.0179 (s * \text{ic_fc}) \\
 \text{reg_comp} &= 0.3118 (e * [\text{d} + \text{ic_fc} - 1]) \\
 \text{conc_comp} &= 0.2597 (\text{sd}) \\
 \text{gensub_comp} &= 0.4059 (\text{water_sewer_cost}) \\
 \text{ecodev_comp} &= 0.0036 (\text{epc}) \\
 \text{iso} &= 0.0008 (\text{iso}) \\
 \text{lr} &= 0.0003 (\text{lr}) \\
 \text{nt} &= 0.0000 (\text{nt}) \\
 \text{Category factor} &= \text{fc_comp} + \text{reg_comp} + \text{conc_comp} + \text{gensub_comp} + \\
 &\quad \text{ecodev_comp} + \text{iso} + \text{lr} + \text{nt}
 \end{aligned}$$

Comparison of category factors

151. Table 28 shows the category factors calculated for the Draft Assessment for the 2004 Review compared with the category factors assessed for this category in the 2003 Update.

Table 28 COMPARISON OF CATEGORY FACTORS, 2003 UPDATE AND THE DRAFT ASSESSMENT FOR THE 2004 REVIEW

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2003 Update	0.93046	0.84500	0.84559	1.01847	2.27413	0.98523	0.40814	1.04345
Draft Assessment - 2004 Review	0.94932	0.71456	0.86302	1.54599	1.73520	0.80087	0.60212	2.42011

Standardised expenses

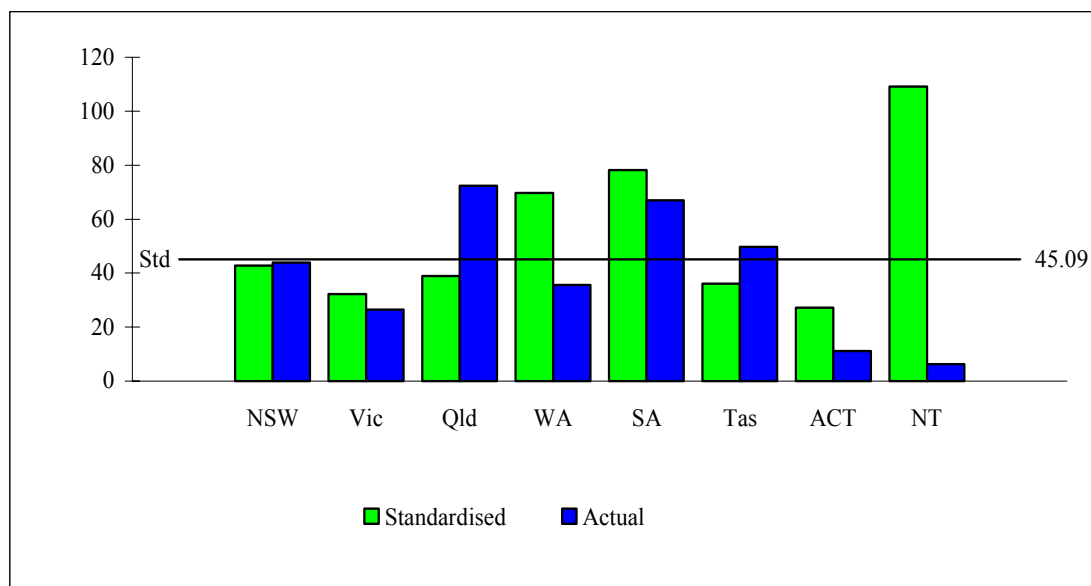
152. Table 29 shows the standardised expenses assessed for this category for 2001-02 in the draft assessment compared with those assessed in the 2003 Update.

Table 29 ACTUAL AND STANDARDISED EXPENSES

	Standard	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2003 Update -									
Estimated expenses									
\$m		100.41	3.57	26.89	128.56	139.42	0.02	0.89	7.35
\$ per capita	20.77	15.12	0.73	7.33	67.02	91.80	0.04	2.77	36.78
Standardised expenses									
\$m		128.35	85.21	64.47	40.58	71.74	9.68	2.74	4.33
\$ per capita	20.77	19.33	17.55	17.56	21.16	47.24	20.46	8.48	21.67
2004 Review									
Estimated expenses									
\$m		291.16	128.56	265.51	68.34	101.71	23.50	3.60	1.25
\$ per capita	45.09	43.84	26.48	72.34	35.63	66.97	49.67	11.14	6.25
Standardised expenses									
\$m		284.23	156.41	142.82	133.70	118.81	17.09	8.76	21.82
\$ per capita	45.09	42.80	32.22	38.91	69.70	78.23	36.11	27.15	109.11

153. Figure 1 shows the gross expenses per capita for 2001-02 in terms standardised, estimated and gross standard expenses.

Figure 1 WATER, SANITATION AND PROTECTION OF THE ENVIRONMENT
— GROSS EXPENSES PER CAPITA — STANDARDISED, ESTIMATED
AND STANDARD, 2001-02



ANALYSIS

154. Table 30 shows the change in the redistribution of grants between the assessment in the 2003 Update and in the draft assessment for the 2004 Review.

155. Compared with an equal per capita assessment, the 2004 Review assessment redistributed about \$124.3 million away from New South Wales, Victoria, Queensland, Tasmania and the ACT to Western Australia, South Australia and the Northern Territory, \$76.9 million more than in the 2003 Update.

156. The main reasons for the change in grants were:

- (i) the increase in the size of the category because of the inclusion of depreciation;
- (ii) the EPC component weight being reduced from 24.93 per cent to 0.36 per cent, which has increased the notional grants for States which have a disadvantage in providing services — notably Western Australia, South Australia and the Northern Territory;
- (iii) the inclusion of costs weights reflecting the larger subsidies paid in the more remote areas of States, which has increased the notional grants for States which have higher proportions of their population living in remote areas — most notably the Northern Territory, but also, to a lesser extent, Western Australia; and
- (iv) changes to the method of assessing the impact of water quality and water availability, which has increased the notional grants for States which have higher proportions of their population living in drainage divisions where the provision of water requires additional subsidies — notably Western Australia, South Australia and the Northern Territory.

Table 30 EFFECT OF ASSESSMENT ON GRANT DISTRIBUTION — WATER, SANITATION AND PROTECTION OF THE ENVIRONMENT

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total ^(a)
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Contribution to 2003 Update relativities^(b)	-10.7	-18.2	-13.7	0.9	46.3	-0.2	-4.7	0.2	47.4
Composition	-11.8	-19.9	-14.9	1.0	50.7	-0.2	-5.1	0.2	51.9
Assessment	2.3	-15.7	1.5	24.8	-19.5	-2.0	1.8	6.9	37.2
Interaction	3.1	-17.0	1.7	27.0	-21.5	-2.3	1.7	7.3	40.8
Contribution to 2004 Review draft assessments relativities^(b)	-17.1	-70.9	-25.4	53.6	56.1	-4.6	-6.3	14.6	124.3
Total Change	-6.4	-52.7	-11.8	52.7	9.7	-4.5	-1.6	14.4	76.9

(a) Total redistribution.

(b) Assuming same pool and a constant population.

(c) This figure shows the change in the amount redistributed among the States between the 2003 Update and the 2004 Review Draft Assessment. It does not necessarily equal the difference in the total contributions to the relativities between the two inquiries.

ATTACHMENT A

INFORMATION PROVIDED BY STATES

1. A summary of the regional data provided by States is shown in Table 31.

Table 31 REGIONAL COST DATA PROVIDED BY STATES^(a)

Town	Queensland		Western Australia ^(b)		Northern Territory ^(b)		
	Water Cost per service Town	Sewerage Cost per service Town	Water Town	Cost Cost	Water Town	Cost Cost	
	(\$)	(\$)		(\$/ML)		(\$/ML)	
Brisbane	200	Brisbane	122	Perth	1 446	Darwin	659
Beaudesert	352	Gold Coast	156	Albany	2 264	Pine Creek	980
Caboolture	132	Noosa	179	Brunswick	1 411	Katherine	1 665
Caloundra	130	Redcliffe	97	Narrogin	2 069	Alice Springs	1 662
Gold Coast	104	Miriam Vale	484	Esperance	1 793	Daly Waters	1 555
Noosa	176	Bundaberg	181	Norseman	4 301	Larrimah	2 153
Bundaberg	182	Cairns	154	Yalgoo	5 407	Mataranka	1 410
Cairns	131	Balonne	216	Kalbarri	1 472	Timber Creek	3 058
Banana	417	Burdekin	341	Kalgoorlie	3 446	Boorooloa	1 654
Dalrymple	923	Hervey Bay	319	Fitzroy Crossing	2 032	Elliott	768
Mount Isa	517	Mount Isa	185	Karratha	2 005	Newcastle Waters	1 034
Barcoo	1 006	Aramac	421			Tennant Creek	1 749
Diamantina	1 760	Barcaldine	407			Ti Tree	1 605
Ilfracombe	409	Bulloo	540				
Isisford	632	Diamantina	280				
Longreach	372	Torres	618				
Torres	1 059						

(a) States' data were weighted independently to eliminate differences in States' cost accounting procedures.

(b) Sewerage data provided by Western Australia and the Northern Territory were at variance to normal operating cost structures and were not used.