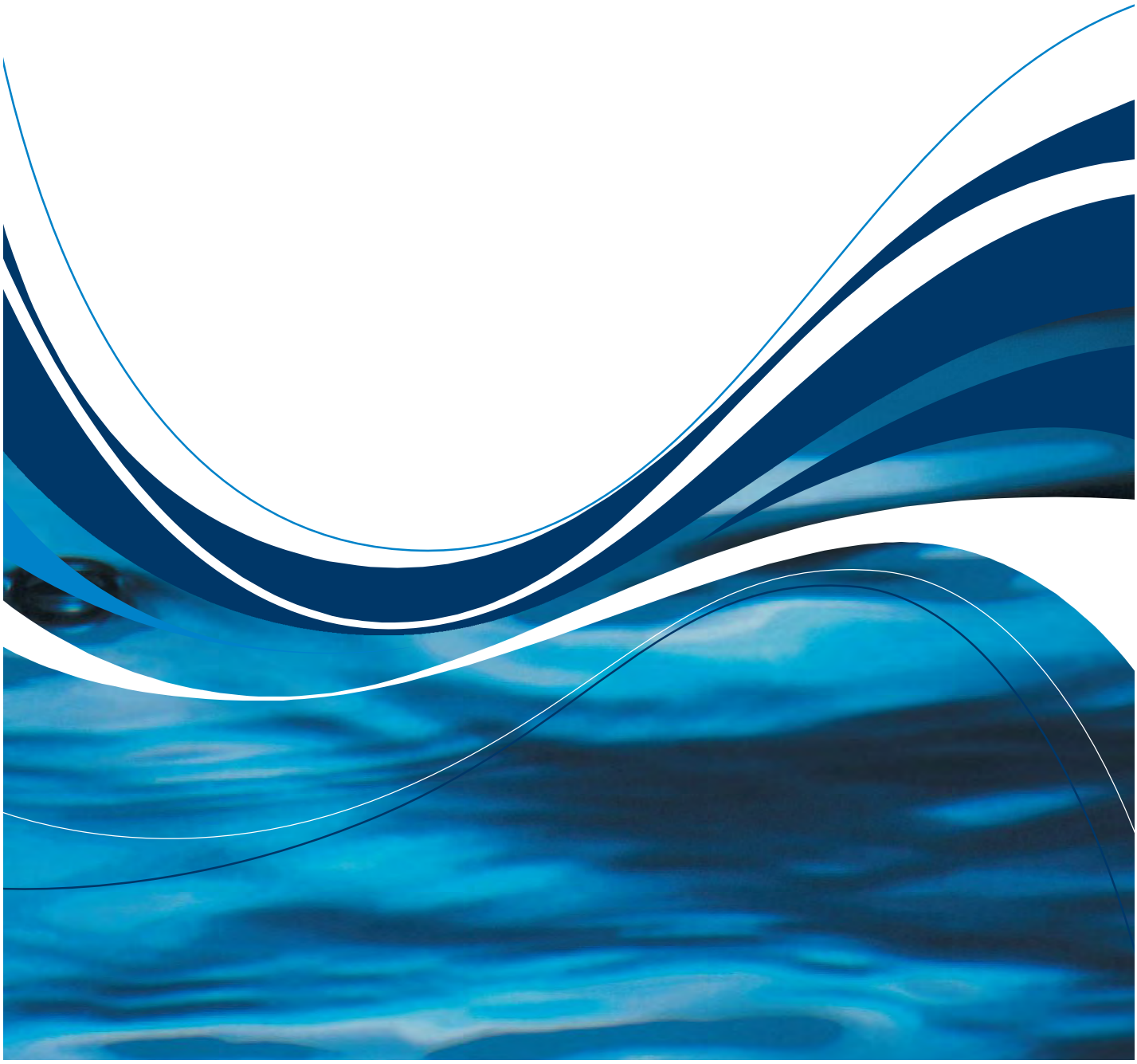
2003/04

WATER SUPPLY AND SEWERAGE

NSW BENCHMARKING REPORT



New South Wales Government

DEPARTMENT OF ENERGY, UTILITIES AND SUSTAINABILITY
NEW SOUTH WALES GOVERNMENT

BEST PRACTICE MANAGEMENT

Local Government Association of NSW

Shires Association of NSW

2003/04 NSW
WATER SUPPLY AND SEWERAGE

BENCHMARKING REPORT

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FOREWORD

The State Government encourages continuous improvement in the performance of water utilities with the aim of improving the quality and efficiency of services to all NSW residents.

Performance monitoring and benchmarking enable each water utility to monitor trends both in its performance indicators and its relative performance. Utilities can thus identify and rectify any areas of under-performance.

Performance monitoring and benchmarking are required under *National Competition Policy* and the *National Water Initiative*, are important for public accountability to the community and have been strongly endorsed by the Independent Pricing and Regulatory Tribunal[1].

The overall performance of NSW water utilities, together with interstate comparisons, is provided in the *2003/04 NSW Water Supply and Sewerage Performance Monitoring Report*.

This *NSW Water Supply and Sewerage Benchmarking Report* discloses the full suite of NSW performance indicators and benchmarking data for all NSW water utilities, including Sydney and Hunter Water Corporations. This enables each Local Water Utility (LWU) to benchmark its performance against that of similar LWUs.

To facilitate comparisons, the Minister for Energy and Utilities has made both the *Performance Monitoring Report* and the *Benchmarking Report* available on the Department of Energy, Utilities and Sustainability (DEUS) website (www.deus.nsw.gov.au/water). These reports have been prepared by DEUS.

To provide a balanced view of the long-term sustainability of NSW water utilities, a Triple Bottom Line (TBL) accounting focus has been adopted, with performance reported on the basis of social, environmental and economic performance indicators.

NSW performance monitoring and benchmarking also provide valuable data for determining the present position and assessing future water supply and sewerage needs for non-metropolitan NSW. This ensures an appropriate focus and targeting of programs to assist LWUs.

[1] *Pricing Principles for Local Water Authorities*, Independent Pricing and Regulatory Tribunal' NSW, 1996

ACKNOWLEDGMENTS

The strong and continuing support of the Local Government Association of NSW and the Shires Association of NSW (LGA and SA) for the NSW annual water supply and sewerage performance reporting system since its commencement in 1986 is acknowledged.

The contribution of NSW Health is acknowledged for providing additional water quality data (from the NSW water quality database) and water quality monitoring compliance data. This data has been incorporated into Tables 5 and 12 and Appendix D1.

The NSW Local Government Water Directorate is also acknowledged for permitting use of its *Technical Guidelines for Drought Management*.

The success of the NSW performance reporting system is contingent on full participation by all NSW Local Water Utilities (LWUs). The continuing participation of each LWU in the reporting system and each LWU's significant efforts in providing current, accurate and timely data on its performance for each of the last 4 years are therefore particularly acknowledged.

Council Amalgamations

In July 2003 there were 126 LWUs providing water supply and sewerage in non-metropolitan NSW. However, during 2003/04 there were several amalgamations resulting in the number of LWUs reducing to 107 in June 2004. The amalgamations were:

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

The report discloses performance on the basis of the 126 LWUs existing in July 2003. Tables 1 to 18 also report the performance of the amalgamated LWUs by aggregating the reported data from their constituent LWUs. For clarity, Figures 1 to 81 report results for the amalgamated LWUs, but not those of their constituent LWUs over the last 5 years.

The basis for aggregating the results of amalgamated LWUs is shown in Appendix E.

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APPENDICES

1 INTRODUCTION

This *NSW Water Supply and Sewerage Benchmarking Report* discloses the full suite of NSW water supply and sewerage performance indicators and benchmarking data for all NSW non-metropolitan Local Water Utilities (LWUs). The data is presented in the form of figures and tables and provides comparative information to enable each LWU to benchmark its performance against that of similar LWUs. A companion report, the *2003/04 NSW Water Supply and Sewerage Performance Monitoring Report*, provides a summary of the key performance indicators together with a Statewide performance summary and interstate comparisons. To avoid duplication, the Statewide performance summary and interstate comparisons are not repeated in this *Benchmarking Report*. To view the Statewide performance summary refer to pages v, vi and 1 to 8 of the *Performance Monitoring Report,* while for interstate comparisons refer to Appendix A of this report and also to page 9 of the *Performance Monitoring Report*.

2 PARTICIPATING LOCAL WATER UTILITIES

As noted on page ii, this report discloses performance on the basis of the 126 LWUs existing in July 2003 except for the 2004/05 water supply and sewerage tariffs which are on the basis of the 107 LWUs operating in July 2004. The following 126 LWUs[1] participated in the NSW Annual Water Supply and Sewerage Performance Reporting System in 2003/04.

This represents 100% participation by LWUs. Financial data was obtained from Special Schedule Nos 3 to 7 to the councils' 2003/04 financial statements and advice from LWUs on their charging structures.

Albury	Central Tablelands	Gilgandra	Lachlan	Oberon	Tallaganda
Armidale Dumaresq	Cobar	Glen Innes	Leeton	Orange	Tamworth
Australian Inland	Cobar WB	Gloucester	Lismore		Temora
	Coffs Harbour	Goldenfields Water	Lithgow	Parkes	Tenterfield
Ballina	Coolah	Gosford	Lockhart	Parry	Tumbarumba
Balranald	Coolamon	Goulburn		Pristine Waters	Tumut
Barraba	Cooma-Monaro	Grafton	Maclean		Tweed
Bathurst	Coonabarabran	Griffith	Manilla	Queanbeyan	
Bega Valley	Coonamble	Gundagai	Merriwa	Quirindi	Uralla
Bellingen	Cootamundra	Gunnedah	MidCoast Water		Urana
Berrigan	Copmanhurst	Gunning	Moree Plains	Richmond Valley	
Bingara	Corowa	Guyra	Mudgee	Riverina Water	Wagga Wagga
Bland	Cowra		Mulwaree	Rous Water	Wakool
Blayney	Crookwell	Harden	Murray	Rylstone	Walcha
Bogan	Culcairn	Hastings	Murrumbidgee		Walgett
Bombala		Hay	Murrurundi	Scone	Warren
Boorowa	Deniliquin	Holbrook	Muswellbrook	Severn	Weddin
Bourke	Dubbo	Hume		Shoalhaven	Wellington
Brewarrina	Dungog		Nambucca	Singleton	Wentworth
Byron		Inverell	Narrabri	Snowy River	Wingecarribee
	Eurobodalla		Narrandera		Wyong
Cabonne		Jerilderie	Narromine		
Carrathool	Fish River	Junee	North Coast Water		Yallaroi
Central Darling	Forbes		Nundle		Yarrowlumla
		Kempsey			Yass
		Kyogle			Young

[1] *Hawkesbury Council has also reported the performance of its sewerage system.*

3 HOW TO USE THIS REPORT

3.1 Performance Reporting

Performance monitoring and benchmarking are required under National Competition Policy and the National Water Initiative, are important for public accountability and have been strongly endorsed by the Independent Pricing and Regulatory Tribunal.

The State Government promotes continuous performance improvement to improve the quality and efficiency of services to the NSW community. Performance monitoring provides valuable comparative data which enables each Local Water Utility (LWU) to review and improve its performance by examining trends in its performance indicators and by benchmarking its performance against that of similar utilities. LWUs are required to lodge their annual performance reports for water supply and sewerage with DEUS by 31 October each year in order to comply with the *2004 Best-Practice Management of Water Supply and Sewerage Guidelines*.

Factors Impacting on Performance

When comparing reported performance, utilities should take account of the wide range of factors which can impact on their performance and on their ***typical residential bill*** which is the ***principal indicator of the overall cost*** of a water supply or sewerage system (refer to page 4 and Note 5 on page 10). Such factors can produce a fundamental difference in performance.

For example, in the case of water supply, a utility which provides the full water supply system will perform differently to one which only provides components of the system (eg. Reticulation or Bulk supply). Each utility can improve its performance by taking account of such factors and comparing its performance with utilities having similar characteristics (refer to pages 4 to 9).

3.2 Performance Indicators

Triple Bottom Line Focus

To provide a balanced view of the long-term sustainability of NSW water utilities, a Triple Bottom Line (TBL) accounting focus has been adopted, with performance reported on the basis of social, environmental and economic performance indicators. The reported performance indicators have been grouped under the following categories:

- Utility Characteristics
- Social (Charges/Bills, Health, Levels of Service)
- Environmental (Natural Resource Management)
- Economic (Financial, Efficiency)

Figures and Tables

Performance benchmarking is provided in this report in the form of figures and tables showing performance indicators for each LWU. An outline of the figures and tables and the General Notes for this data is provided in section 7 on page 10.

Statewide Performance

Statewide performance indicators are calculated on a *'percentage of connected properties basis'*. This best indicates Statewide performance by giving due weight to larger LWUs and reducing the effect of smaller LWUs on the data.

To facilitate comparisons, the performance indicators in this report have been prepared for each LWU's aggregated water supply businesses and aggregated sewerage businesses, rather than for individual water supply and sewerage systems.

3.3 Benchmarking

Each LWU can improve its performance in areas of apparent under-performance by benchmarking its key work processes in these areas with the work processes of 1 or 2 high-performing similar LWUs and implementing the best-practices thus identified. This will provide better customer service, reduced environmental impact and better value-for-money for the community.

In addition, each LWU should undertake "Syndicate Benchmarking" with a group of LWUs with similar characteristics in order to determine current best-practice and to identify existing practices which each LWU can improve.

The results of the syndicate benchmarking pilot project indicate that such process benchmarking should be highly cost-effective for all NSW LWUs. Over 40 NSW LWUs have advised they wish to proceed with syndicate benchmarking of their water supply and sewerage businesses. DEUS will be working with these LWUs to facilitate appropriate syndicate benchmarking projects and will disseminate the results.

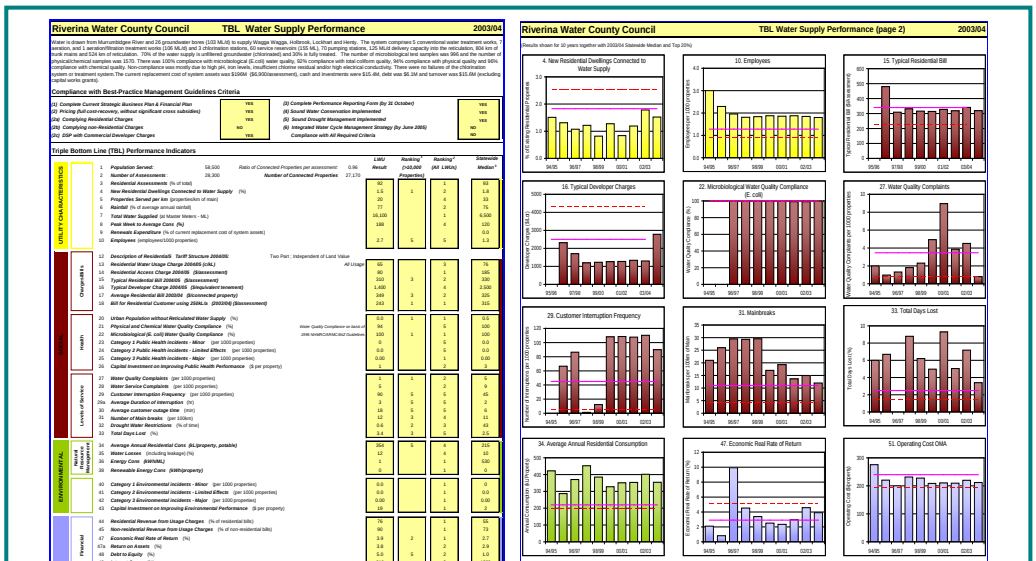
3.4 TBL Performance Reports

DEUS provides each utility and also IPART with an annual Triple Bottom Line (TBL) Performance Report for each utility's water supply and sewerage businesses (a sample report is shown on pages 8 and 9).

The *2003/04 LWU TBL Performance Reports* indicate the status of each LWU's compliance with each of the criteria in the *Best-Practice Management of Water Supply and Sewerage Guidelines*, 2004. LWUs that comply with these guidelines will have demonstrated long-term financial sustainability of their water supply and sewerage businesses and compliance with National Competition Policy (refer to section 4).

To assist each LWU to gain a quick appreciation of its performance relative to similar sized LWUs, the *LWU TBL Performance Report* provides a ranking of each LWU's performance for each performance indicator (second shaded column). These rankings are based on the top 20% of LWUs for each indicator being ranked 1 and the bottom 20% being ranked 5 (LWUs in the range 40% to 60% are ranked 3). In addition, rankings are provided for each LWU's performance relative to all LWUs (third shaded column).

LWUs will appreciate that each of the performance indicators is a "partial" indicator only and therefore cannot be interpreted in isolation. In addition, the rankings are indicative only and do not take into account the wide range of factors that can impact on an LWU's performance, as discussed on pages 4 and 5. The aim of ranking each LWU's performance is to assist the LWU in identifying any areas of under-performance in comparison with similar sized LWUs.



4 BEST-PRACTICE MANAGEMENT

The community and governments are demanding increased accountability by utilities, together with increased levels of service and efficiency. The Minister for Energy and Utilities has published *Best-Practice Management of Water Supply and Sewerage Guidelines* to encourage continuing improvement in performance and to assist LWUs in efficiently and sustainably delivering water supply and sewerage services to their community.

The Guidelines identify the key criteria for best-practice management of water supply and sewerage businesses. LWUs which comply with the *Best-Practice Management Guidelines* and achieve these criteria will have achieved healthy and sustainable water supply and sewerage businesses, such LWUs comply with National Competition Policy, are eligible to pay an annual dividend from the surplus of their water supply and sewerage businesses to the council's general revenue and are eligible for financial assistance towards the capital cost of backlog infrastructure under the *Country Towns Water Supply and Sewerage* program.

The six criteria of the *Best-Practice Management Guidelines* are:

(1) strategic business planning,
(2) pricing and developer charges (including trade waste approvals),
(3) water conservation,
(4) drought management,
(5) performance reporting,
(6) integrated water cycle management.

The reported LWU compliance with the *Guidelines* is shown in Table 3 on page 114 of this report. It can be seen from Table 3 that only 15 LWUs have reported that they complied with all the required criteria for water supply businesses (only 9 LWUs complied for sewerage). Of these 15 LWUs, 10 are large utilities (businesses with a water supply and sewerage annual turnover of $10M or more). The highest reported water supply compliances are for pricing with full cost-recovery (70% - column 2) and performance reporting (87% - column 3), while the lowest reported compliances are for non-residential charges (35% - column 2b) and water conservation (35% - column 4). The highest reported sewerage compliances are for residential charges (69% - column 2a) and performance reporting (80% - column 3), while the lowest reported sewerage compliances are for non-residential charges (21% - column 2b) and developer charges (40% - column 2d). Compliance is also low for drought management, liquid trade waste approvals, trade waste policy and integrated water cycle management but these are not required until June 2005.

All LWUs should address these criteria. Particular attention is required for residential water supply revenue from usage charges [page 21 of *Performance Monitoring Report* and Table 6 on page 126], non-residential water supply and sewerage charges [Table 6B on page 133 and Table 7B on page 148], trade waste fees and charges [Table 7 on page 142] and developer charges [Figure 3 on page 17, Figure 12 on page 29 and Figure 51 on page 75].

5 IMPROVING YOUR LWU'S PERFORMANCE

5.1 Performance Review

A utility's overall aim for its water supply and sewerage businesses should be to provide the levels of service negotiated with its community at the lowest sustainable cost. After setting cost-reflective developer charges, non-residential charges and liquid trade waste fees and charges, each utility should minimise its typical residential bill in current dollars on a sustainable basis [Figure 1 on page 15, Figure 10 on page 27 and Figure 50 on page 74].

In practice this means reviewing whether your performance indicators under "Health", "Levels of Service" and "Environmental" are satisfactory. If they are not, you need to develop options to raise your levels of service and consult the community to establish the option which provides the best value for money.

As noted on page 2, the ***typical residential bill*** is the ***principal indicator of the overall cost*** of a water supply or sewerage system and is the annual bill paid by a residential customer using the utility's average annual residential water consumption. A critical element in minimising the typical residential bill and providing value for money for the community is to ensure each utility's operating cost (OMA) is efficient [Figure 37 on page 57 and Figure 74 on page 102].

To assess performance, you should:

(1) ***Review your performance*** using your *2003/04 TBL Performance Report* for each of water supply and sewerage (sample review is on page 7, sample reports are on pages 8 and 9).

(2) ***Identify any trends*** in your performance indicators over the last 10 years using the second page of the 2003/04 *TBL Performance Report* [page 9], and compare the performance indicators with the Statewide median values and the top 20%.

(3) ***Compare selected performance indicators*** with those of similar sized utilities using the Figures showing performance trends for 4 utility size ranges over the last 5 years [eg. Figure 28 on page 49].

(4) ***Review Operating Cost*** - the ***operating cost*** (OMA – operation, maintenance and administration) per property is a prime indicator of the performance of an LWU and should be reviewed carefully by each LWU to ensure it has an efficient operating cost [Figure 37 on page 57 and Figure 74 on page 102].

The components of operating cost are:

(4a) ***Management cost*** [Figure 40 on page 61 and Figure 77 on page 105] – this includes administration, engineering and supervision and is typically almost 40% of the total operating cost.

(4b) ***Treatment cost (water)*** [Figure 41 on page 62] – this is dependent on the type and quality of the water source and the extent of treatment provided. In addition, there are great economies of scale for the operation of water treatment works (ie. facilities involving at least filtration and disinfection).

Treatment cost (sewage) [Figure 78 on page 106] – this is dependent on the type of treatment and the discharge requirements. Where the discharge licence conditions are stringent, involving for example a low level of phosphorus, treatment costs will be high. There are significant economies of scale for operation of treatment works.

(4c) ***Pumping cost (water)*** [Figure 42 on page 63] – this is dependent on topography and, for water supply, the location of the water source. For example, Australian Inland has a high pumping cost due to the distance required to pump from the water source, while Fish River is almost a fully gravitational supply, with negligible pumping costs. For water supply, there are significant economies of scale in pumping cost/property.

(4d) ***Energy cost*** [Table 13 on page 180] – this is mainly a consequence of pumping requirements and is a component of pumping cost for water supply. Energy cost may be reduced by maximising pumping in off-peak periods or by obtaining a competitive energy rate from the energy supplier (eg. maximising off-peak pumping has provided annual savings in energy costs of over $200,000 for large water supplies).

For sewerage [Table 18 on page 200], energy cost is a component of pumping and treatment costs and significant cost savings may be available by optimising energy use in the treatment process (eg. such optimising of energy use has provided annual savings of over $100,000 for a number of large treatment works).

(4e) ***Water and Sewerage mains cost*** [Figure 43 on page 64 and Figure 80 on page 108] – this is dependent on the age and condition of the mains, the ground conditions and the number of connected properties per km of mains.

(5) ***Undertake process benchmarking*** for selected indicators for areas of apparent under-performance, eg. where an LWU has a ranking of 3 to 5 relative to LWUs with similar characteristics [Table 13 on page 180 and Table 18 on page 200].

5.2 Factors Impacting Performance

A number of factors will impact on a utility's performance. These include the extent of the services provided by each utility, properties served per km of main, climate etc. Each utility should compare its performance with utilities having similar characteristics. For example, in the case of a *water supply* system, the following factors are likely to increase the typical residential bill:

(1) ***Low number of properties served per km of main*** [Figure 6 on page 23] - tends to increase both the typical residential bill and the operating (OMA) cost per property.

(2) ***Bulk storage and/or long transfer systems*** [Note 16 on page 11] – can incur significant capital and operating costs for these facilities. Such costs would not apply for utilities relying on groundwater or those receiving a regulated supply from a State Water dam.

(3) ***Filtered supply*** [Note 17 on page 11] – will incur a high treatment cost per property for small water supply systems (utilities without *'unfiltered'* or *'groundwater'* after their name in Figures 1 to 44 and Tables 5 to 13 have water treatment involving at least filtration and disinfection for over 50% of their water supply).

(4) ***High residential consumption per property*** [Figure 28 on page 49 and Table 10 on page 168] - such utilities should examine opportunities for reducing consumption through water demand management and implementation of best-practice water pricing.

(5) ***High loan payment per property*** [Figure 36 on page 57] - indicates a relatively high capital cost per property, recent construction of significant capital works or use of short-term loans.

(6) ***High pumping cost*** [Figure 42 on page 63] - is influenced mainly by topography and geography. As noted on page 4, the LWU may be able to achieve significant savings in energy cost.

(7) ***Small size of LWU*** – there are significant economies of scale, particularly the capital cost of infrastructure and operation of water treatment works [Figure 41 on page 62]. The tables below highlight the median operating costs for 4 sizes of LWUs.

For LWUs which outsource little of their operation, maintenance and administration work (which is presently the case for the vast majority of LWUs), there is strong correlation between the operating cost (OMA) per property and the number of employees[+] per 1000 properties [Figure 9 on page 26 and Figure 48 on page 72].

Similar considerations to those listed in this section apply to ***sewerage.*** In addition, a significant cost impactor is whether the LWU is operating nutrient removal facilities at its treatment works.

Median Performance Indicators for 4 Sizes of LWUs – Water Supply 2003/04

Size of LWU / *Performance Indicator*	*Over 10,000 Connected Properties (24 LWUs)*	*3,001 to 10,000 Connected Properties (36 LWUs)*	*1,501 to 3,000 Connected Properties (36 LWUs)*	*200 to 1,500 Connected Properties (18 LWUs)*
Operating Cost/property ($)	220	325	305	325
Operating Cost (c/kL)	70	60	45	60
Operating Cost/ 100 km ($'000)	980	765	670	575
Management Cost/property ($)	95	95	100	75
Treatment Cost[1]/property ($)	28	70	82	108
Pumping Cost/property ($)	19	26	40	55
Energy Cost[2]/property ($)	14	18	10	24
Water Main Cost/property ($)	41	51	52	58
No. of Employees/1000 properties	1.4	1.6	1.9	2.4

Notes: 1. Only LWUs with a treatment works with at least filtration & disinfection for over 50% of supply have been considered.
2. A component of pumping cost.

Median Performance Indicators for 4 Sizes of LWUs – Sewerage 2003/04

Size of LWU / *Performance Indicator*	*Over 10,000 Connected Properties (17 LWUs)*	*3,001 to 10,000 Connected Properties (37 LWUs)*	*1,501 to 3,000 Connected Properties (38 LWUs)*	*200 to 1,500 Connected Properties (26 LWUs)*
Operating Cost/property ($)	270	260	215	230
Operating Cost (c/kL)	110	105	115	105
Operating Cost/ 100 km ($'000)	1150	895	700	535
Management Cost/property ($)	100	95	80	59
Treatment Cost/property ($)	87	78	82	92
Pumping Cost/property ($)	43	27	40	31
Energy Cost[1]/property ($)	12	8	9	7
Sewer Main Cost/property ($)	34	33	20	20
No. of Employees/1000 properties	1.4	1.6	1.5	2.1

Note: 1. A component of pumping and treatment costs.

6 REVIEW OF PERFORMANCE

6.1 Example Water Supply Business – Riverina Water

An example Performance Report is shown on pages 8 and 9 for Riverina Water County Council which has 5 water treatment works and 10 aerators/chlorination stations.

Summary

The performance of Riverina Water County water supply is very good. Riverina Water is commended for achieving 76% of residential revenue from water usage charges. In addition to continuing to monitor and improve its performance, Riverina Water should introduce a step price increase for discretionary water usage by residential customers and best-practice non-residential charging as indicated in the action for indicator 12 and Note 5 below.

INDICATOR[+]	*ISSUE*	*ANALYSIS / ACTION PLAN*
Compliance with Best-Practice Management Guidelines		
	Compliance with the Best-Practice Management Guidelines.	*Riverina Water complies with the Best-Practice Management (BPM) Guidelines except for items (2b) Water Supply Tariff and (6) Integrated Water Cycle Management Strategy.* *Riverina Water should revise its non-residential charges and substantially commence an IWCM Strategy by June 2005 in order to comply with the BPM Guidelines.*
12	*Residential water supply - Riverina Water has a two part tariff with an access charge of $80 for a 20mm connection in Wagga Wagga. The usage charge is 65 c/kL.*	*Residential tariff structure is generally satisfactory. However, Riverina Water should introduce a step price increase of at least 50% for incremental residential water usage above a specified threshold. This threshold should not exceed 450kL/a per household.*
Note 5	*Non-residential water supply - Riverina Water has a uniform Access Charge of $120 for non-residential connections in Wagga Wagga.*	*Riverina Water should revise its non-residential access and usage charges to comply with the BPM Guidelines. This would involve:* • *Basing access charges for larger than 20mm service connections on their capacity requirements* • *Abolition of the lower usage charge for usage over 36 ML/a.*
	Integrated Water Cycle Management (IWCM) Strategy	*Riverina Water should substantially commence an IWCM strategy by June 2005 and complete and implement the strategy by June 2006.*
Performance Improvement		
15, 18	*Typical residential bill. High ranking[#] of 2(1). The bill for a residential customer using 250 kL/a is low (ranking of 1(1)).*	*Performance is satisfactory (page 27). Typical residential bill is lower than the statewide median. Recent movement to commercial developer charges (Indicator 16) may further improve this indicator.*
10	*Employees. Low ranking of 5(5).*	*Acceptable due to the low number of properties per km of main (pages 23 and 26).*
23	*Public health incidents. Ranking of 1.*	*No incidents reported.*
27	*Water Quality Complaints. High ranking of 2(2).*	*Riverina Water is commended for significantly reducing the water quality complaints (page 40). There has been a vast improvement in this parameter over the last 3 years.*
28	*Service complaints. High ranking of 2(2).*	*Satisfactory performance (page 42).*
29	*Customer Interruption frequency. Low ranking of 5(5).*	*Analyse options for improvement. This parameter is double the statewide median of 45.*
31	*Number of Main Breaks was 12 per 100 km of main (ranking of 3(3)).*	*Satisfactory Performance (page 44). Examine options for further improvement.*
33	*Total Days Lost was high (ranking of 3(5)).*	*There was a significant improvement in this parameter from 2002/03 (page 65). However, further improvement should be targeted.*
34	*Average Annual Residential Consumption at 354 kL/a was significantly higher than the Statewide median (ranking of 5(4)).*	*Performance satisfactory in view of Riverina Water's inland location (page 49).*
35	*Water losses relatively high (ranking of (4)).*	*Analyse the components to determine options for improvement (page 50).*
40, 41, 42, 43	*Environmental incidents ranking of 1.*	*No incidents reported.*
44	*Residential Revenue from usage charges. High ranking of 1(1).*	*Excellent performance (page 126).*
45	*Economic Real Rate of Return is 3.9% with ranking of 2(1).*	*Good performance (page 55).*
50, 51, 52	*The operating cost (OMA) per property & per 100km of Main and operating (OMA) cost/kL was low (ranking of 1(1), 2(1) & 1(1) respectively).*	*Performance is satisfactory (pages 58 and 59). A lower than average operating cost should be expected as Riverina Water has access to good quality groundwater and only needs to provide conventional water treatment for 30% of its supply.*
55, 57	*Pumping cost was high ($68 per property, ranking of 5(4)). Water main cost was low (($22 per property, ranking of 1(1)).*	*The cost for Indicators 55 (page 63) and 57 (page 64) is mitigated by the low number of properties per km of main (page 23) and Riverina water's 98 bores and pumping stations.*

[#] *The ranking relative to similar size LWUs is shown first, followed by the ranking relative to all LWUs within brackets*

[+] *Riverina Water's results for each indicator are shown on page 8. Performance trends for key indicators over the last 10 years are shown on page 9.*

Performance Trends

The figures on page 9 indicate a higher number of employees per 1000 properties than the Statewide median (Fig 10) – this is not unreasonable in view of Riverina Water's 39 groundwater bores and 26 pumping stations. The typical residential bill is slightly lower than the Statewide median (Fig 15), and typical developer charges are now slightly higher than the Statewide median (Fig 16).

Microbiological compliance (Fig 22) is excellent at 100% and water quality complaints (Fig 27) are significantly lower than the Statewide median. Mainbreaks were slightly higher than the Statewide median in 2003/04 (Fig 31). The operating cost (Fig 51) and management cost (Fig 53) were consistently at about the top 20% level while pumping costs (Fig 55) were consistently much higher than the Statewide median – these pumping costs are considered reasonable in view of Riverina Water's 98 bores and pumping stations.

Riverina Water (TBL Performance Report Page 1)

Riverina Water County Council — TBL Water Supply Performance — 2003/04

Water is drawn from Murrumbidgee River and 26 groundwater bores (103 ML/d) to supply Wagga Wagga, Holbrook, Lockhart and Henty. The system comprises 5 conventional water treatment works, 7 aeration, and 1 aeration/filtration treatment works (106 ML/d) and 3 chlorination stations, 60 service reservoirs (155 ML), 70 pumping stations, 125 ML/d delivery capacity into the reticulation, 804 km of trunk mains and 524 km of reticulation. 70% of the water supply is unfiltered groundwater (chlorinated) and 30% is fully treated. The number of microbiological test samples was 996 and the number of physical/chemical samples was 1570. There was 100% compliance with microbiological (E.coli) water quality, 92% compliance with total coliform quality, 94% compliance with physical quality and 96% compliance with chemical quality. Non-compliance was mostly due to high pH, iron levels, insufficient chlorine residual and/or high electrical conductivity. There were no failures of the chlorination system or treatment system.The current replacement cost of system assets was $196M ($6,900/assessment), cash and investments were $15.4M, debt was $6.1M and turnover was $15.6M (excluding capital works grants).

Compliance with Best-Practice Management Guidelines Criteria

(1) Complete Current Strategic Business Plan & Financial Plan	YES	*(3) Complete Performance Reporting Form (by 31 October)*	YES
(2) Pricing (full cost-recovery, without significant cross subsidies)	YES	*(4) Sound Water Conservation Implemented*	YES
(2a) Complying Residential Charges	YES	*(5) Sound Drought Management Implemented*	YES
(2b) Complying non-Residential Charges	NO	*(6) Integrated Water Cycle Management Strategy (by June 2005)*	NO
(2c) DSP with Commercial Developer Charges	YES	*Compliance with All Required Criteria*	NO

Triple Bottom Line (TBL) Performance Indicators

						LWU Result	Ranking [1] (>10,000 Properties)	Ranking [2] (All LWUs)	Statewide Median [3]
UTILITY CHARACTERISTICS		1	***Population Served:***	58,500	*Ratio of Connected Properties per assessment:* 0.96				
		2	***Number of Assessments*** :	28,300	***Number of Connected Properties*** 27,170				
		3	***Residential Assessments*** (% of total)			92		1	93
		4	***New Residential Dwellings Connected to Water Supply*** (%)			1.5	4	2	1.8
		5	***Properties Served per km*** (properties/km of main)			20		4	33
		6	***Rainfall*** (% of average annual rainfall)			77		2	75
		7	***Total Water Supplied*** (at Master Meters - ML)			16,100		1	6,500
		8	***Peak Week to Average Cons (%)***			188		4	120
		9	***Renewals Expenditure*** (% of current replacement cost of system assets)						0.0
		10	***Employees*** (employees/1000 properties)			2.7	5	5	1.3
SOCIAL	Charges/Bills	12	***Description of Residential5 Tariff Structure 2004/05:***		Two Part ; Independent of Land Value				
		13	***Residential Water Usage Charge 2004/05 (c/kL)***		*All Usage*	65		3	76
		14	***Residential Access Charge 2004/05 ($/assessment)***			80		1	185
		15	***Typical Residential Bill 2004/05 ($/assessment)***			310	3	2	330
		16	***Typical Developer Charge 2004/05 ($/equivalent tenement)***			1,400		4	2,500
		17	***Average Residential Bill 2003/04 ($/connected property)***			349	3	2	325
		18	***Bill for Residential Customer using 250kL/a (2003/04) ($/assessment)***			243	1	1	315
	Health	20	***Urban Population without Reticulated Water Supply*** (%)			0.0	1	1	0.5
		21	***Physical and Chemical Water Quality Compliance*** (%)		*Water Quality Compliance on basis of*	94		5	100
		22	***Microbiological (E. coli) Water Quality Compliance*** (%)		*1996 NHMRC/ARMCANZ Guidelines*	100	1	1	100
		23	***Category 1 Public Health incidents - Minor*** (per 1000 properties)			0		5	0.0
		24	***Category 2 Public Health incidents - Limited Effects*** (per 1000 properties)			0.0		5	0.0
		25	***Category 3 Public Health incidents - Major*** (per 1000 properties)			0.00		1	0.00
		26	***Capital Investment on Improving Public Health Performance*** ($ per property)			1		2	3
	Levels of Service	27	***Water Quality Complaints*** (per 1000 properties)			1	1	2	5
		28	***Water Service Complaints*** (per 1000 properties)			5		2	9
		29	***Customer Interruption Frequency*** (per 1000 properties)			90	5	5	45
		29a	***Average Duration of Interruption*** (hr)			3	5	5	2
		30	***Average customer outage time*** (min)			18	5	5	6
		31	***Number of Main breaks*** (per 100km)			12	3	4	11
		32	***Drought Water Restrictions*** (% of time)			0.6	2	3	43
		33	***Total Days Lost*** (%)			3.4	3	5	2.5
ENVIRONMENTAL	Natural Resource Management	34	***Average Annual Residential Cons (kL/property, potable)***			354	5	4	215
		35	***Water Losses*** (including leakage) (%)			12		4	10
		36	***Energy Cons (kWh/ML)***			1		1	530
		38	***Renewable Energy Cons (kWh/property)***			0		1	0
		40	***Category 1 Environmental incidents - Minor*** (per 1000 properties)			0.0		1	0
		41	***Category 2 Environmental incidents - Limited Effects*** (per 1000 properties)			0.0		1	0.0
		42	***Category 3 Environmental incidents - Major*** (per 1000 properties)			0.00		1	0.00
		43	***Capital Investment on Improving Environmental Performance*** ($ per property)			19		1	2
ECONOMIC	Financial	44	***Residential Revenue from Usage Charges*** (% of residential bills)			76		1	55
		45	***Non-residential Revenue from Usage Charges*** (% of non-residential bills)			90		1	73
		47	***Economic Real Rate of Return*** (%)			3.9	2	1	2.7
		47a	***Return on Assets*** (%)			3.8		2	2.9
		48	***Debt to Equity*** (%)			5.0	5	2	1.0
		49	***Interest Cover*** (%)			610		3	1300
		49a	***Loan Payment*** ($/property)			50		2	22
	Efficiency	50	***Operating Cost (OMA) per 100km of main*** ($'000)			419	1	1	880
		51	***Operating Cost (OMA) per property*** [6] ($/property)			212	2	1	255
		52	***Operating Cost (OMA) per kL*** (c/kL)			36	1	1	73
		53	***Management Cost*** ($/property)			61	1	2	100
		54	***Treatment Cost*** ($/property)			26	3	2	27
		55	***Pumping Cost*** ($/property)			68	5	4	20
		56	***Energy Cost*** ($/property)			39	5	4	15
		57	***Water Main Cost*** ($/property)			22	2	1	43

Notes:

1 *Ranking for LWUs with (>10,000) connected properties is based on dividing the results for LWUs in this group into 5 equal divisions of 20%:*
ie. a ranking of 1 indicates the LWU is in the top 20% of LWUs; a ranking of 5 indicates the LWU is in the bottom 20% of LWUs. (Relevant for comparison with LWUs of similar size).

2 *Ranking (1 to 5) for all LWUs is on a percentage of LWUs basis . (Relevant for comparing performance with all other LWUs).*

3 *The Statewide Median is on a percentage of connected properties basis (Table 1 of 2003/04 NSW Water Supply and Sewerage Benchmarking Report) as this is the most appropriate basis for statewide comparisons.*

4 *Annual review of the key projections and actions in LWU's SBP are required, together with annual updating of LWU's financial plan. The Business Plan should be updated after 3 years.*

5 *Non-residential Tariff: Uniform Access Charge ($120); Declining Block ; For usage Up to 36,000 kL = 65 c/kL; for usage >36,000 kL = 56 c/kL.*
Water consumption by non-residential customers was 39% of potable water consumption excluding unaccounted-for-water.
2003/04 revenue from non-residential customers was 28% of annual rates and charges.This indicates a large cross-subsidy to non-residential customers and failure to comply with best practice pricing.

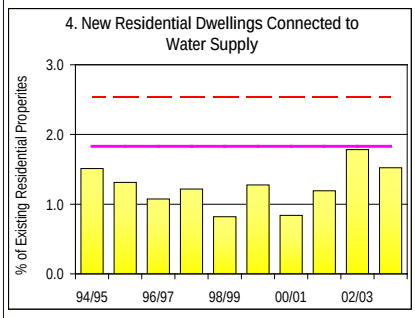
6 *The operating cost (OMA)/property was $212.The components of operating cost/property were: management ($61), operation ($36), maintenance ($57), energy ($39) and chemical ($17).*

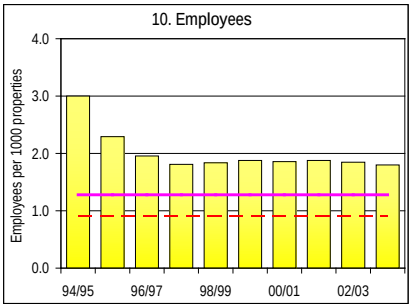
7 *70% of the supply is a good quality unfiltered groundwater supply and 30% is fully treated river flows.*

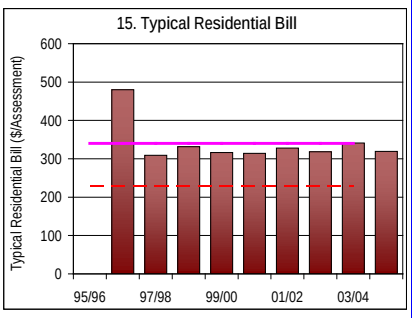
Riverina Water (TBL Performance Report Page 2)

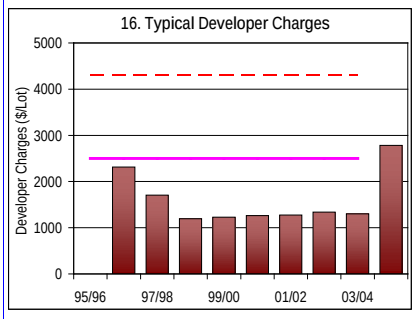
Riverina Water County Council | **TBL Water Supply Performance (page 2)** | **2003/04**

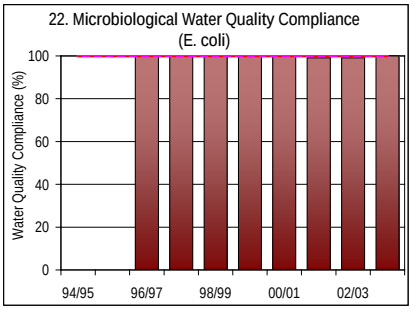
(Results shown for 10 years together with 2003/04 Statewide Median and Top 20%)

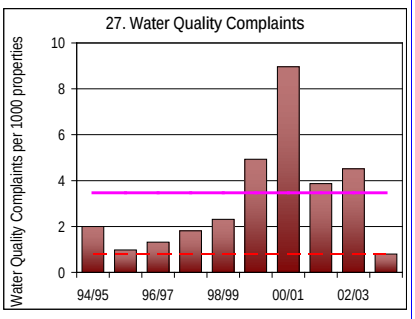


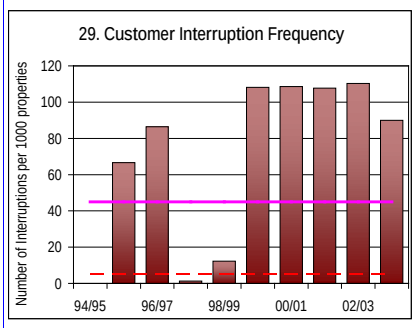


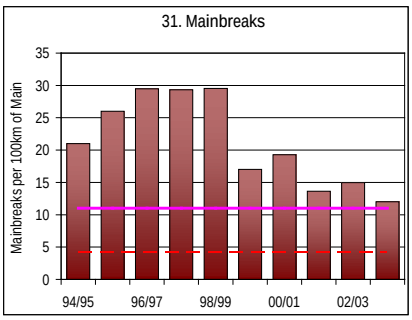


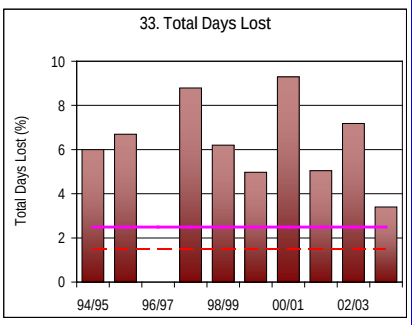


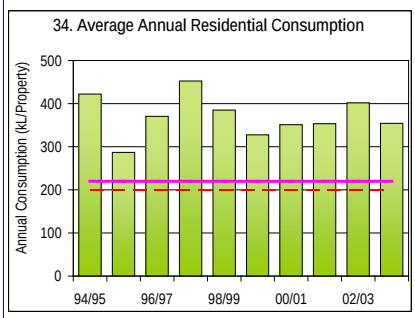


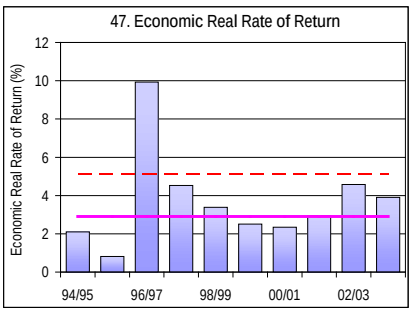


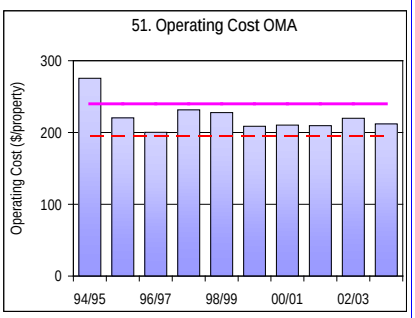


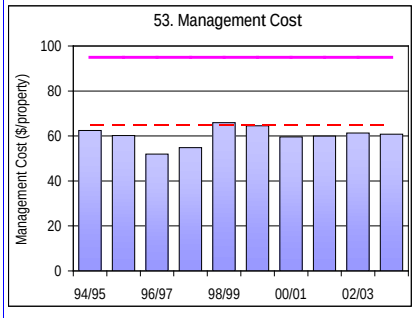


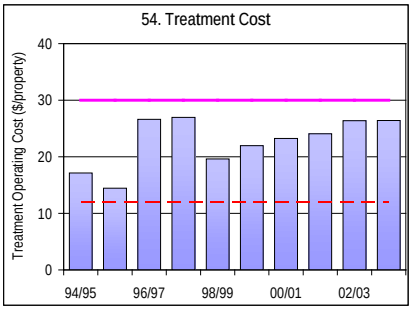


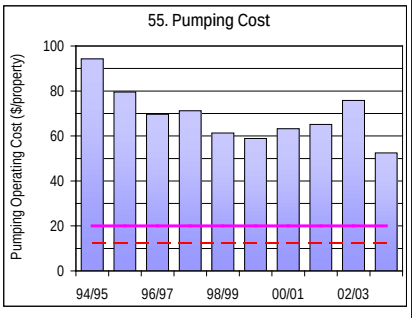












Notes:

1 *Costs are in Jan 2004$.*

2 *Microbiological water quality compliance for 1998/99 to 2003/04 was on the basis of E.coli in the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines. Compliance prior to 1998/99 was on the basis of the 1987 NHMRC/AWRC Guidelines.*

LEGEND

2003/04 State Median

2003/04 Top 20%

7 FIGURES AND TABLES

7.1 Figures

Most of the figures in this report show performance indicators for each of the last 5 years to enable review of trends and to facilitate benchmarking and 'yardstick' comparisons. The figures show ranked results for LWUs grouped into 4 size ranges in order to enable each LWU to compare its performance against similar sized LWUs. The better performing LWUs are shown at the left of each group and the 4 groups are:

- Over 10,000 connected properties
- 3,001 to 10,000 connected properties
- 1,501 to 3,000 connected properties
- 200 to 1,500 connected properties

For clarity, the figures provide the results for amalgamated LWUs but not those of their constituent LWUs. The basis for aggregating LWUs is shown in Appendix E. Where no data is available for some of the constituent LWUs, the results for the largest constituent LWU have been reported; such results are shown in italics bold in the relevant Table 5 to 18.

7.2 Tables

Table 5 on page 120 and Tables 6 to 18 on pages 125 to 203 show water supply and sewerage performance indicators for each of the 129 NSW water utilities (126 LWUs plus Sydney Water and Hunter Water Corporations and Hawkesbury Council) for the last 4 years. The final page of each table also provides performance indicators for the 15 LWUs that have been formed as a result of amalgamations of councils since July 2003.

7.3 General Notes for Figures and Tables

1. To provide a balanced view of the long-term sustainability of Local Water Utilities (LWUs), a triple bottom line (TBL) accounting focus has been adopted in this report, with performance reported on the basis of **Utility Characteristics**, **Social**, **Environmental** and **Economic** indicators. As noted on page ii, this report discloses performance on the basis of the 126 LWUs existing in July 2003, except for the 2004/05 water supply and sewerage tariffs which are on the basis of the 107 LWUs operating in July 2004. Tables 5 to 18 also report the performance of the amalgamated LWUs by aggregating their constituent LWUs. For clarity, Figures 1 to 81 report results for the amalgamated LWUs but not of their constituent LWUs.
2. Where an LWU has not reported an item for 2003/04, the value previously reported has been used where available, otherwise an estimate has been used based on results for similar utilities. Such values are shown in ***italics bold*** in Tables 5 to 18. These values are also shown in the relevant figures.
3. This report has been prepared on a "per connected property" basis for consistency with national performance reporting. A connected property is a property that is connected to the system, as opposed to an assessment which is a bill issued by a water utility. Factors that influence this indicator are the number of vacant blocks (with no connection but which are billed as an assessment) and the number of multiple dwellings (eg. blocks of flats or units) with a single assessment.
4. The number of connected properties is generally not well reported by LWUs. A common error is to report the number of flats served rather than the number of blocks of flats in Question 2b of the Performance Reporting forms. A detailed review for three large coastal LWUs with a significant incidence of flats found the number of connected properties per assessment to be 0.95, 0.96 and 0.98 respectively. An LWU with about 10% vacant lots could expect this value to be about 0.90 while an LWU with few vacant lots and a high incidence of company title flats could expect this value to approach 0.98. DEUS has therefore estimated this ratio for many utilities.
5. The typical residential bill per assessment is the annual bill paid by a residential customer using the LWU's average annual residential water consumption and is the principal indicator of the overall cost of a water supply or sewerage system. Pensioners pay a lower amount due to the $87.50 pensioner rebate as do owners of vacant lots as they pay no water usage charges.
6. The 2004/05 typical residential bill is based on a customer of the LWU's principal water supply or sewerage system using the LWU's 2003/04 average annual residential water consumption. These bills and tariff details are shown in Table 6 on page 126 (water supply) and Table 7 on page 142 (sewerage). The typical residential bill for 2003/04 and previous years is based on the reported average annual residential potable water consumption for that year (2003/04 residential consumptions are shown in column 14 of Table 6).

For the amalgamated LWUs (shown as Nos 131 to 145 in Tables 5 to 18), the typical residential bill for each of water supply and sewerage (column 8 on Tables 6 and 7) has been calculated on the basis of the residential tariff for the largest constituent LWU and the average annual residential water consumption for the amalgamated LWU (2003/04 consumptions are shown in column 14 in Table 6).

7. The average residential bill per connected property (column 9 on Tables 6 and 7) comprises the LWU's revenue from residential rates and charges, including residential sales of water, divided by the number of connected residential properties. Except for utilities with an inclining block tariff or an annual water allowance, and those with access charges not independent of land value, the average residential bill is less than the typical residential bill due to pensioner rebates and vacant lots.

8. The typical developer charges reported for Sydney Water Corporation and Hunter Water Corporation are for new release areas.

9. Drinking water quality guidelines have become more stringent. This report reports compliance with the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines (National Health and Medical Research Council/Agriculture and Resource Management Council of Australia and New Zealand).

10. The average annual residential potable water consumption per connected property is shown in Table 6 as indicated in Note 6 above. Where an LWU has not separately reported its residential water consumption, such consumption has been estimated using the Statewide average of 57% of the LWU's total potable water consumption [column 1 of Table 8 on page 159].

11. 10 LWUs had a dual water supply to over 50% of their residential customers in June 2004 (ie. With a potable supply for indoor use and a non-potable supply for outdoor use).

    The total annual residential water consumption (ie. potable + non-potable) for those LWUs with a dual water supply in 2003/04 is shown below, together with their potable residential water consumption in brackets. The total and potable residential consumptions were: Balranald 1,170 (179), Berrigan 490 (152), Bourke 1,580 (340), Central Darling 590 (108), Hay 790 (200), Jerilderie 370 (154), Murray 520 (193), Walgett 700 (146), Warren 480 (199) and Wentworth 1,050 (204).

    Note that as the potable residential consumption shown above for Berrigan, Central Darling and Murray is calculated only for those towns with a dual supply (ie. excluding towns with only a potable water supply), it is lower than the values reported in column 14 of Table 6.

12. For consistency with national performance reporting, water losses include apparent losses (unbilled unmetered consumption, unauthorized consumption, under-registration of meters) plus real losses (leakage).

13. A review of water losses for NSW water utilities responsible for reticulating water supply to residential customers has indicated a minimum of 10% of total potable water supplied. The values for any such utilities reporting less than 10% water losses have been increased to 10% and the reported values for total water supplied have been increased accordingly. Similarly, as minimum real losses (ie. leakage) for such utilities have been found to be at least 6% of the potable water supplied, reported values of real losses of less than 6% have been increased to 6%. The adjusted values are shown in italics bold in columns 8 and 9 of Table 8 on page 156.

14. Total annual water supplied comprises the sum of the potable water supplied plus the non-potable water supplied less the recycled water [column 12 of Table 8 on page 156]. Recycled water is a component of the non-potable supply which also includes raw water [columns 13 and 14 of Table 8].

15. The operation, maintenance and administration (OMA) costs for water supply reticulators include the OMA cost for the bulk supplier on the basis of the volume of water supplied to the reticulator divided by the total volume supplied by the bulk supplier to all customers. For example for Cootamundra, the OMA cost of $364/property comprises $220/property for the bulk supply from Goldenfields (bulk supplier) plus $144 for the reticulator (Cootamundra).

16. **Bulk Storage** - utilities that provide bulk storage dams for their water supply incur significant capital and operating costs for these facilities, resulting in a higher typical residential bill and operating cost per property (refer to section 3.2 (2) on page 5). The following non-metropolitan utilities provided such bulk storage: Armidale, Australian Inland, Ballina, Bathurst, Bega Valley, Bourke, Brewarrina, Byron (Mullumbimby), Cabonne, Central Tablelands, Cobar, Coffs Harbour, Coonabarabran, Crookwell, Eurobodalla, Fish River, Glen Innes, Gosford, Goulburn, Guyra, Hastings, Inverell, Kempsey, Kyogle, Lachlan, Lithgow, MidCoast, Moree, Mudgee, Mulwaree, Murrurundi, Orange, Parkes, Parry, Rous, Rylstone, Shoalhaven, Tallaganda, Tamworth, Tenterfield, Tweed, Uralla, Wingecarribee, Wyong, Yarrowlumla, Yass.

17. **Unfiltered** - refers to a utility with over 50% of its supply comprising unfiltered surface water ie. the utility does not have a water treatment works involving at least filtration and disinfection for over 50% of its supply.
    Groundwater - refers to a utility with over 50% of its supply comprising good quality unfiltered groundwater.
    Reticulator - refers to a utility which purchases over 70% of its source water from a bulk supplier and reticulates water to householders in its area.
    Bulk Supplier - refers to a utility whose main task is to provide a piped bulk water supply to other utilities, rather than reticulating water to householders.

Dual Supply - refers to a utility with a potable reticulated water supply for indoor uses and a separate non-potable supply reticulated for outdoor uses to over 50% of its residential customers (refer to Note 11 above).

18. The performance indicators shown for Sydney Water Corporation and Hunter Water Corporation were obtained from *WSAA facts 2004*.

19. The performance of amalgamated LWUs has been determined by aggregating the reported data from constituent LWUs as shown in Appendix E. Where no data is available for some of the constituent LWUs, the results for the largest constituent LWU have been reported; such results are shown in italics bold in the relevant Table 5 to 18.

7.4 Contents of Tables 5 to 18

8 WATER SUPPLY AND SEWERAGE FIGURES

This section contains the following Figures for water supply and sewerage:

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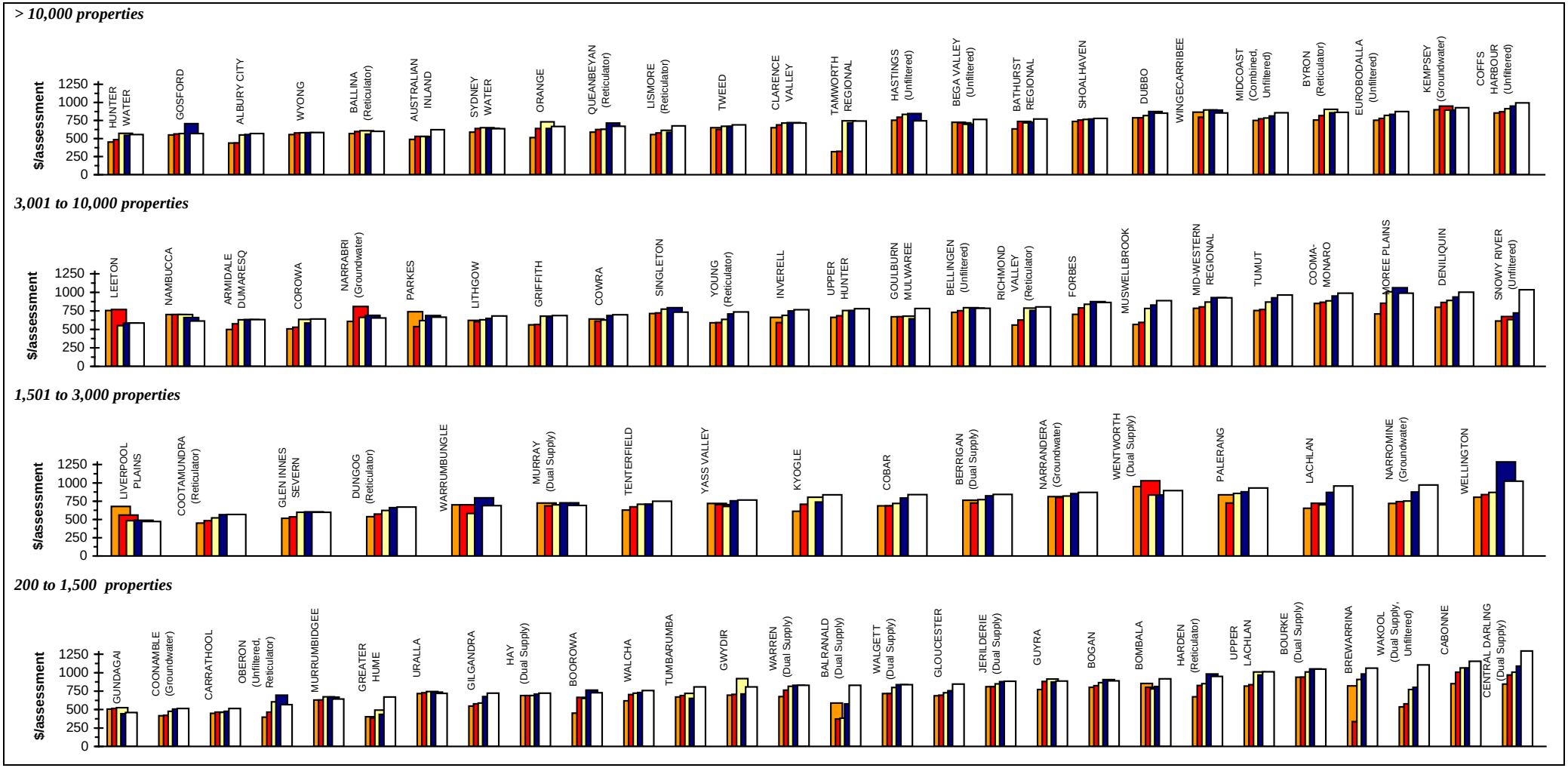
1 Typical Residential Bill – Water Supply and Sewerage

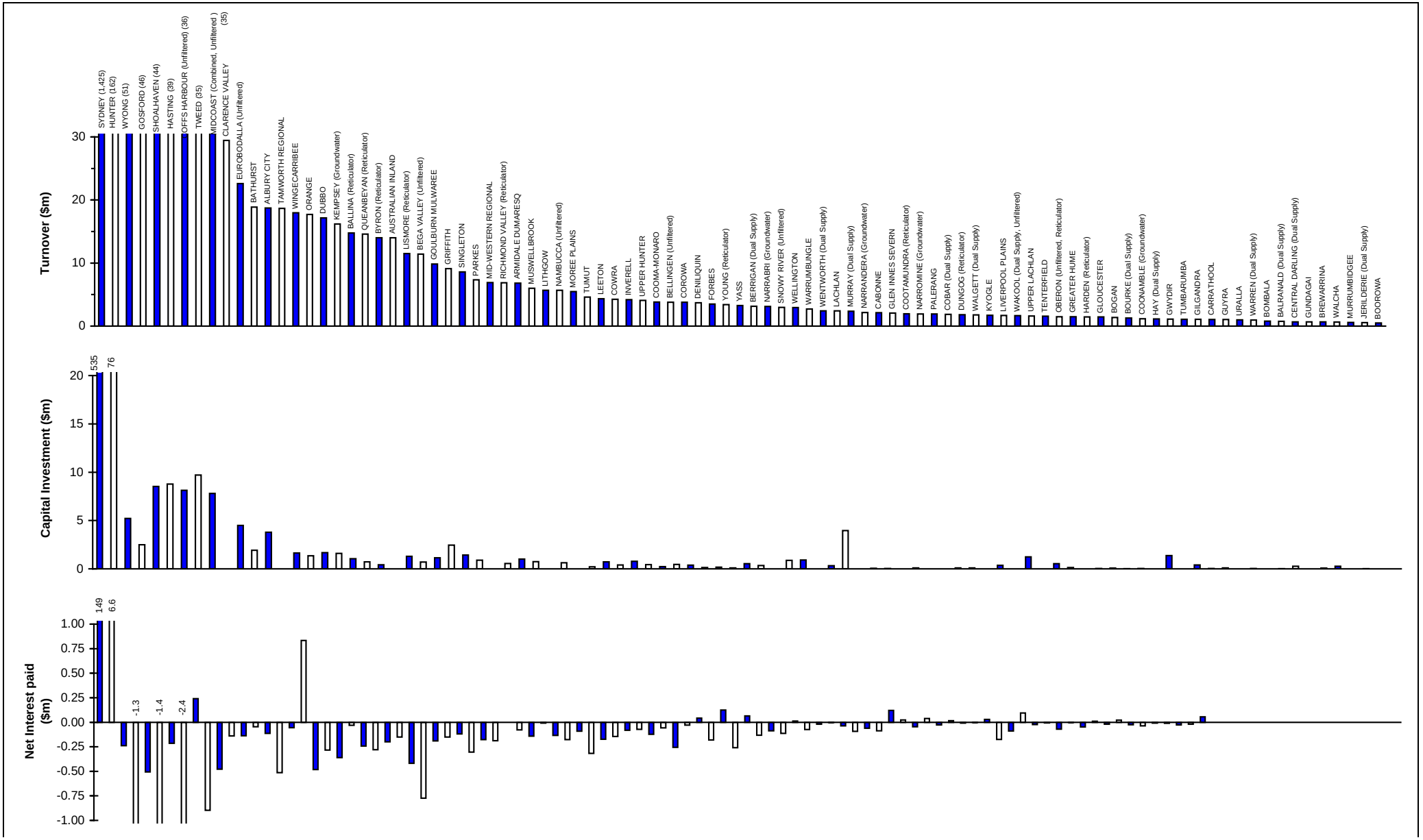


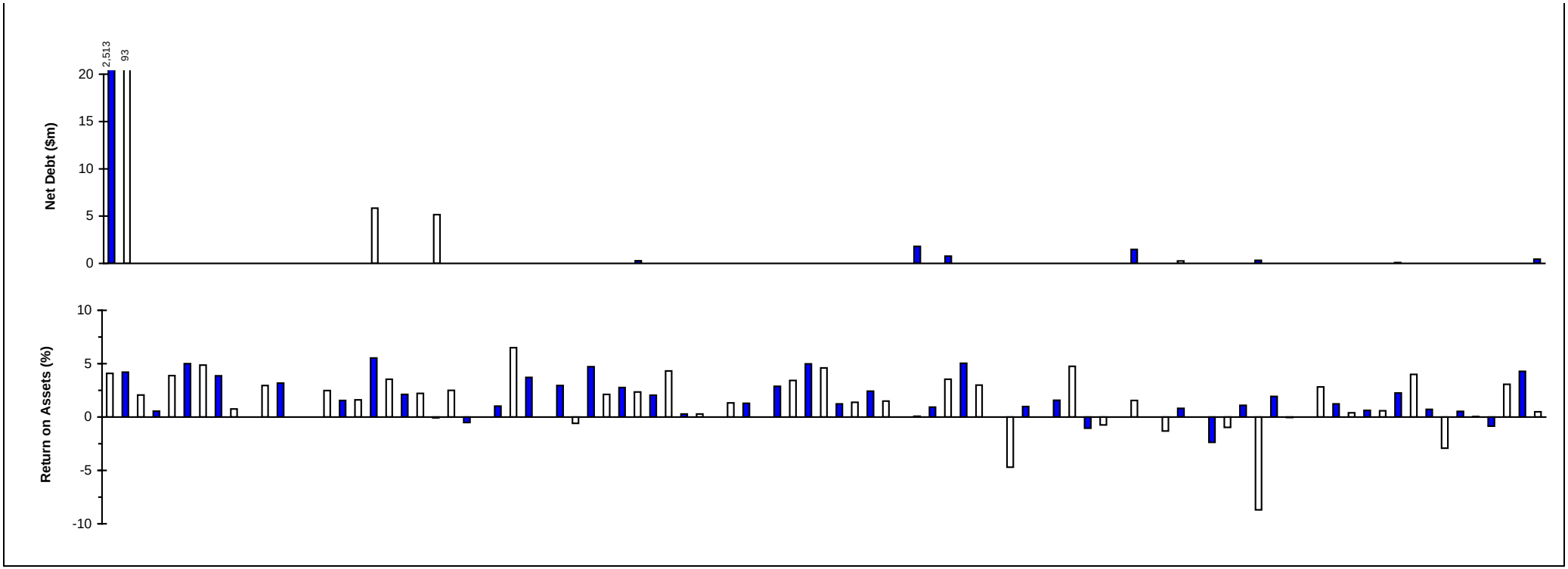
Parameter: Typical Water Supply Residential Bill (Fig. 10) + Typical Sewerage Residential Bill (Fig. 50)

Notes:

1. This figure shows ranked values of the 2004/05 typical residential bill for water supply and sewerage for each Local Water Utility (LWU) in 4 groups based on the number of water supply connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the typical residential bills for water supply and sewerage for the 24 LWUs shown ***range*** from about ***$585 to $1,035*** per assessment. Results for the previous 4 years are also shown in Jan 2005$.
2. The Statewide 2004/05 median typical residential bill for water supply and sewerage is $705 per assessment.
3. For general notes see page 10.

2 Turnover, Capital Investment, Net interest paid, Net Debt, Return on Assets – Water Supply and Sewerage





Parameter: [Total Revenue (W13 + S14) - Grants for Acquisition of Assets (W11a + S12a)] ÷ 1,000,000

Parameter: Acquisition of Fixed Assets (W16 + S17)

Parameter: Interest Expense (W4a + S4a) - Interest Income (W9 + S10)

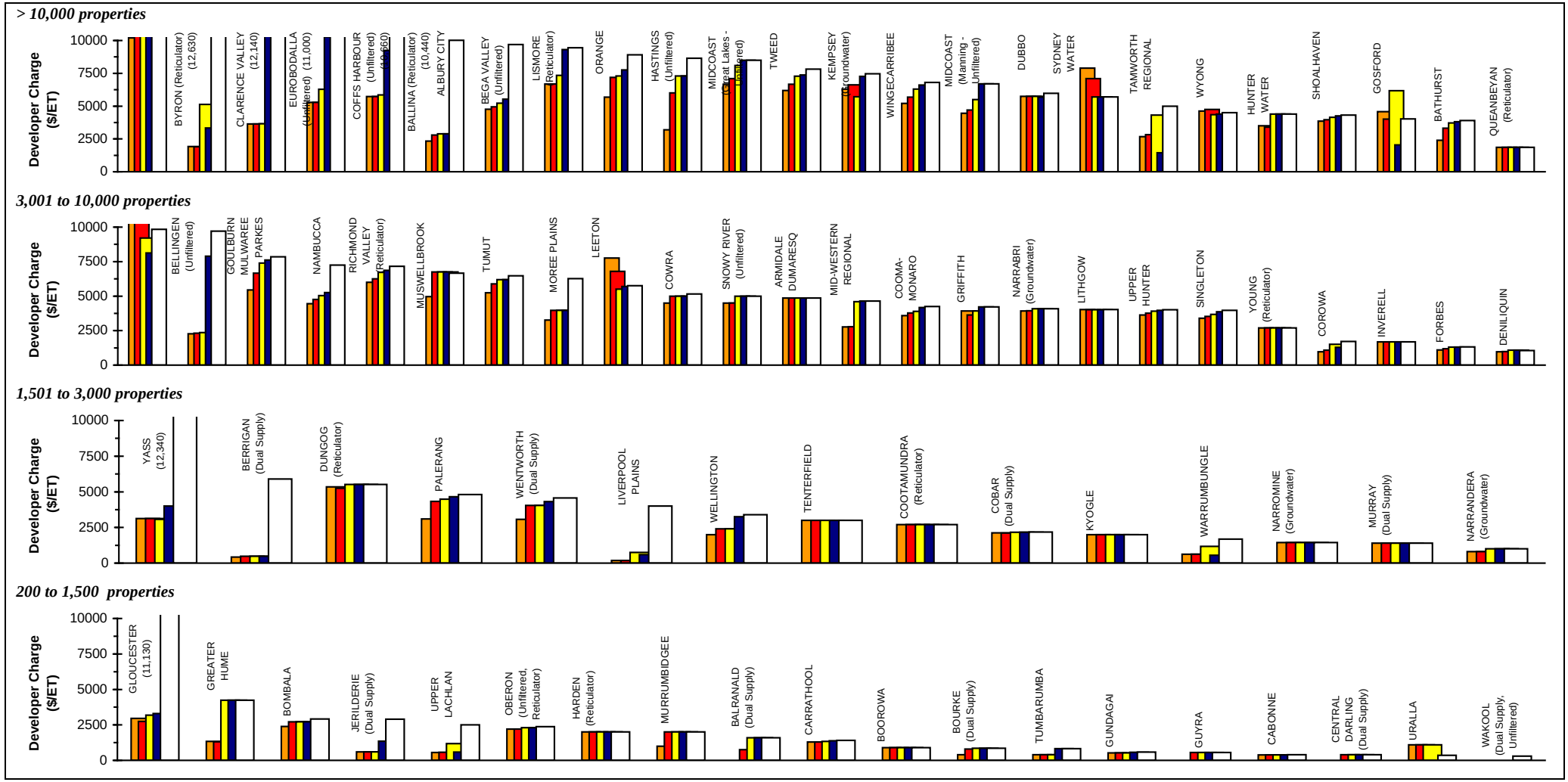
Parameter: [Borrowings (W39 + S40) + Bank Overdraft (W37 + S38)] – Cash and Investments (W30 + S31)

Parameter:
$$\frac{\text{[Total Revenue (W13 + S14) – Grants for Acquisition of Assets (S12a – W11a) – Total Expenses (W5 + S5)] x 100}}{\text{Total Equity (W44 + S45)}}$$

Note:

1. For general notes see page 10.

3 Typical Developer Charge – Water Supply and Sewerage



Parameter: Typical Water Supply Developer Charge (Q36) + Typical Sewerage Developer Charge (Q36)

Notes:

1. This figure shows ranked values of the 2004/05 typical developer charge for water supply and sewerage for each Local Water Utility (LWU) in 4 groups based on the number of water supply connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the typical developer charge for water supply and sewerage for the 26 LWUs shown ***range*** from about $9,836 to $1,050 per (equivalent tenement) ET. Results for the previous 4 years are also shown in Jan 2005$. Developer charges for the last 2 years for water supply and sewerage are shown in Tables 6 and 7 respectively..
2. The Statewide median typical developer charge for water supply and sewerage was about $5,400 per ET.
3. For general notes see page 10.

9 WATER SUPPLY FIGURES

This section contains the following Figures for water supply:

UTILITY CHARACTERISTICS

4 Population, Assessments Served
5 New Residential Dwellings Connected
6 Properties Served per km of Main, Length of Main
7 Rainfall, Temperature
8 Total Water Supplied
9 Employees

SOCIAL – *CHARGES/BILLS*

10 Typical Residential Bill - Water Supply
11 Residential Water Allowance, Usage Charge and Access Charge
12 Typical Developer Charge for Water Supply

SOCIAL – *HEALTH*

13 Urban Population without Water Supply
14 Physical Water Quality Compliance
15 Chemical Water Quality Compliance
16 E. coli Water Quality Compliance
17 Compliance with 1996 Australian Drinking Water Guidelines
18 Public Health Incidents, Capital Investment

SOCIAL – *LEVELS OF SERVICE*

19 Turbidity and Colour for Filtered Supplies
20 Turbidity and Colour for Unfiltered Supplies
21 Water Quality Complaints
22 Total Complaints, Water Quality Complaints, Service Complaints, Billing Complaints, Other Complaints
23 Number of Water Main Breaks
24 Service Connection Failures
25 Drought Water Restrictions
26 Chlorination System Malfunction
27 Treatment Works Malfunction

ENVIRONMENTAL – *NATURAL RESOURCE MANAGEMENT*

28 Annual Residential Consumption
29 System Water Loss, Unaccounted-for-water
30 Energy Consumption per ML
31 Energy Consumption per property
32 Environmental Incidents, Management Systems, Capital Investment

ECONOMIC – *FINANCIAL*

33 Revenue from Usage Charges, Access and Other
34 Economic Real Rate of Return
35 Operating Sales Margin, Return on Assets, Debt Service Ratio, Interest Cover
36 Loan Payment

ECONOMIC – *EFFICIENCY*

37 Operating Cost (OMA) per property
38 Operating Cost (OMA) per 100 km of main
39 Operating Cost (OMA) per kL
40 Management Cost per property
41 Treatment Cost
42 Pumping Cost
43 Water Main Cost
44 Total Days Lost

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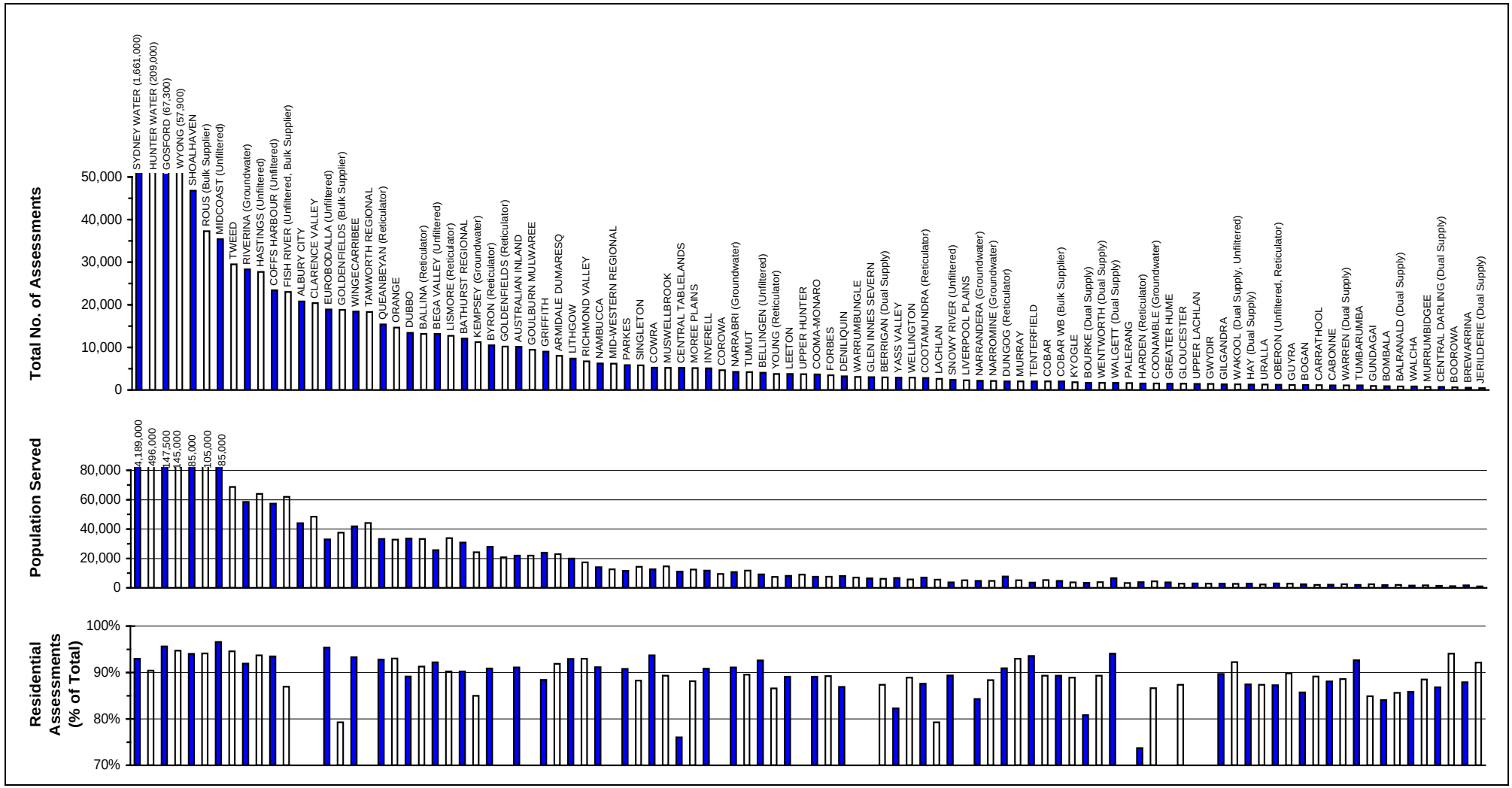
4 Population, Assessments Served – Water Supply



Parameter: No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)

Parameter: Population Served (Q1a)

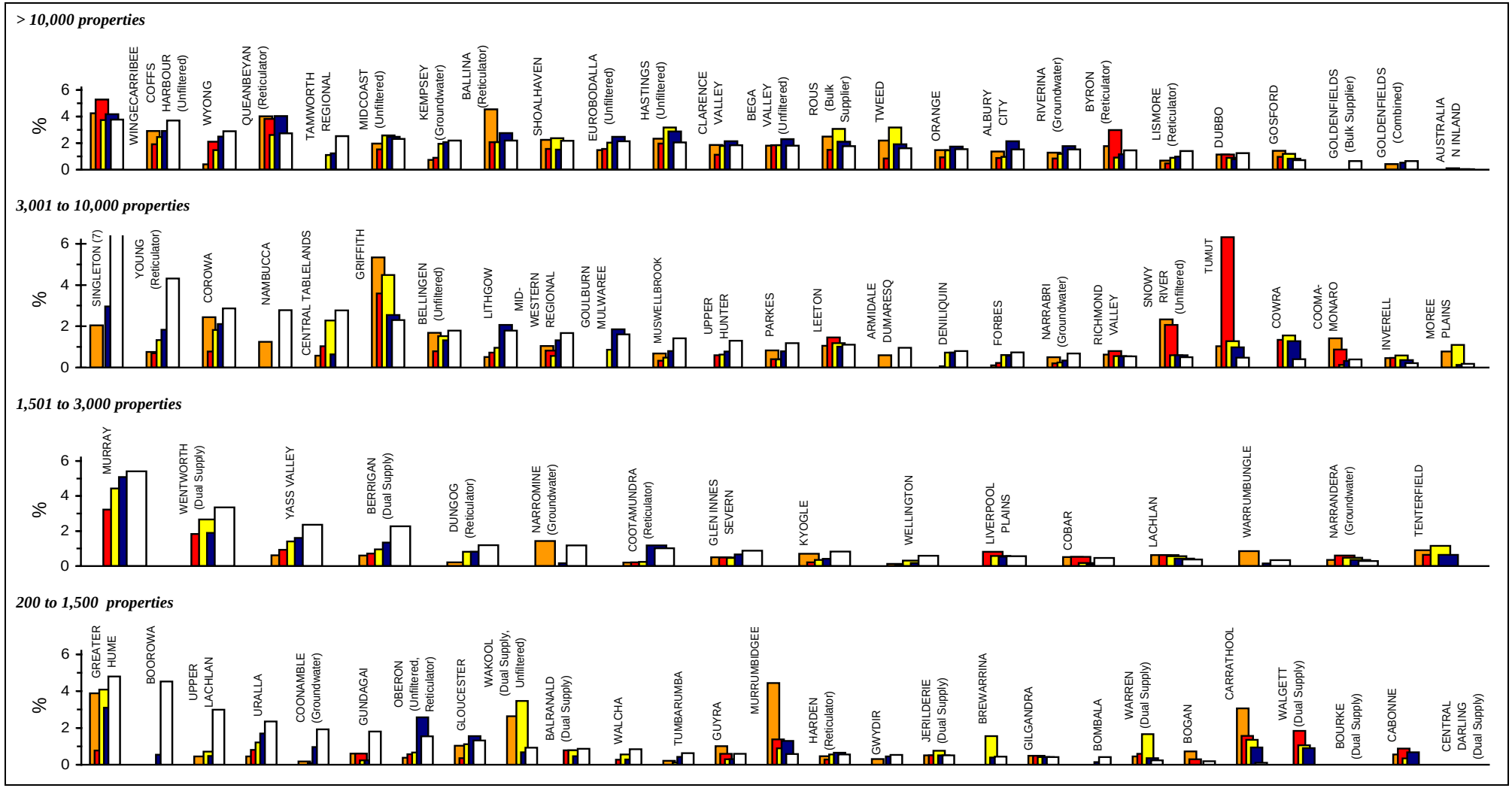
Parameter:

$$\frac{\text{No. of Residential Assessments (Q4a) x 100}}{\text{No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)}}$$

Note:

1. For general notes see page 10.

5 New Residential Dwellings Connected – Water Supply

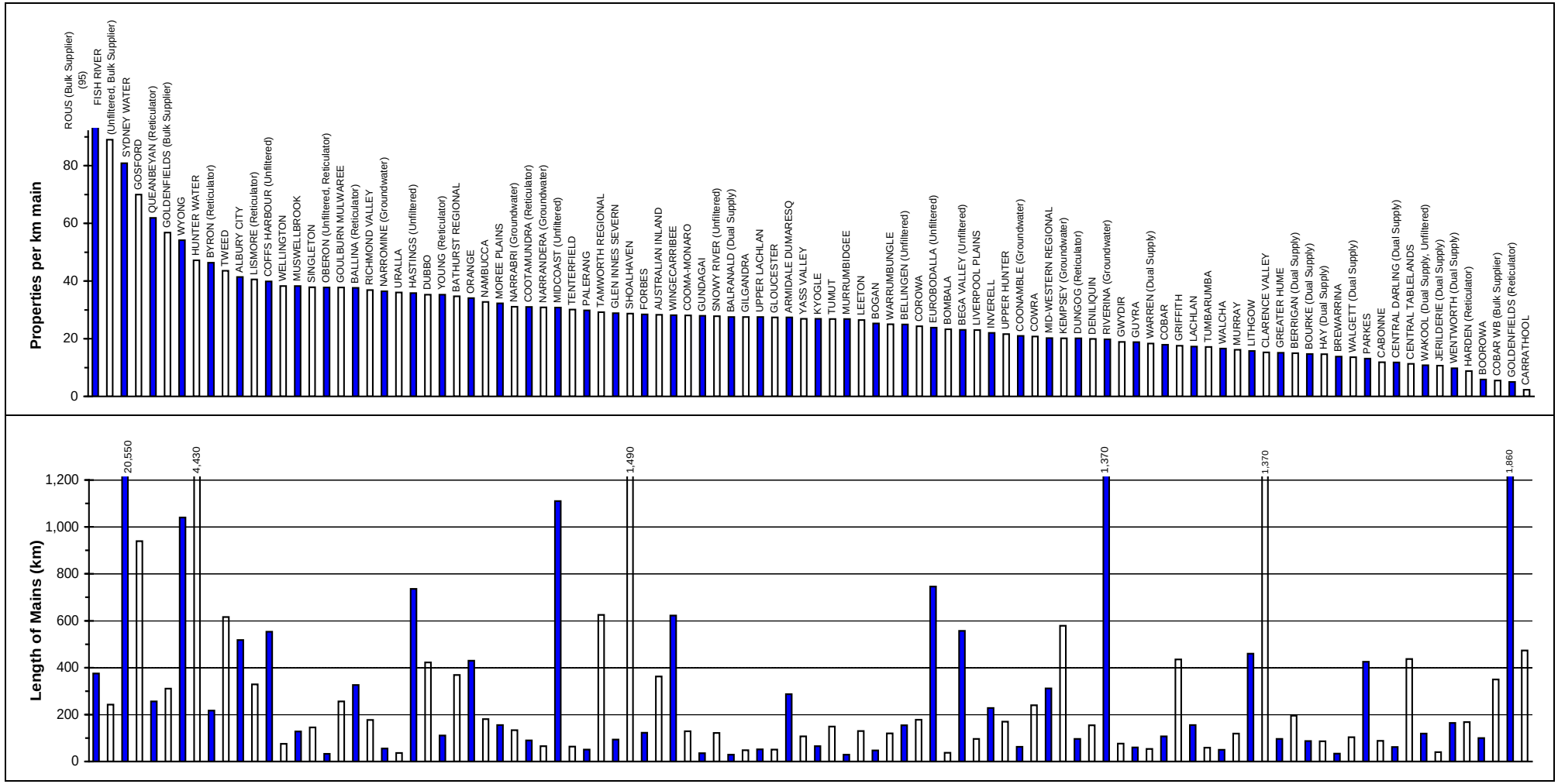


Parameter: $\dfrac{\text{No. of New Residential Dwellings Connected in Year (Q6) x 100}}{\text{No. of Residential Assessments (Q4a) x No. of connected Residential Properties per Residential Assessment}}$

Notes:

1. This figure shows 2003/04 ranked values of the percentage of new residential dwellings connected to water supply for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the percentage of new connections for the 26 LWUs shown ***range*** from about 7.1% to 0.2%. The LWU on the right did not report this parameter for 2003/04. Results for the previous 4 years are also shown.
2. The Statewide median percentage of new residential dwellings connected to water supply is 1.8% of the existing number of connected residential properties.
3. For general notes see page 10.

6 Properties Served per km of main, Length of Mains – Water Supply



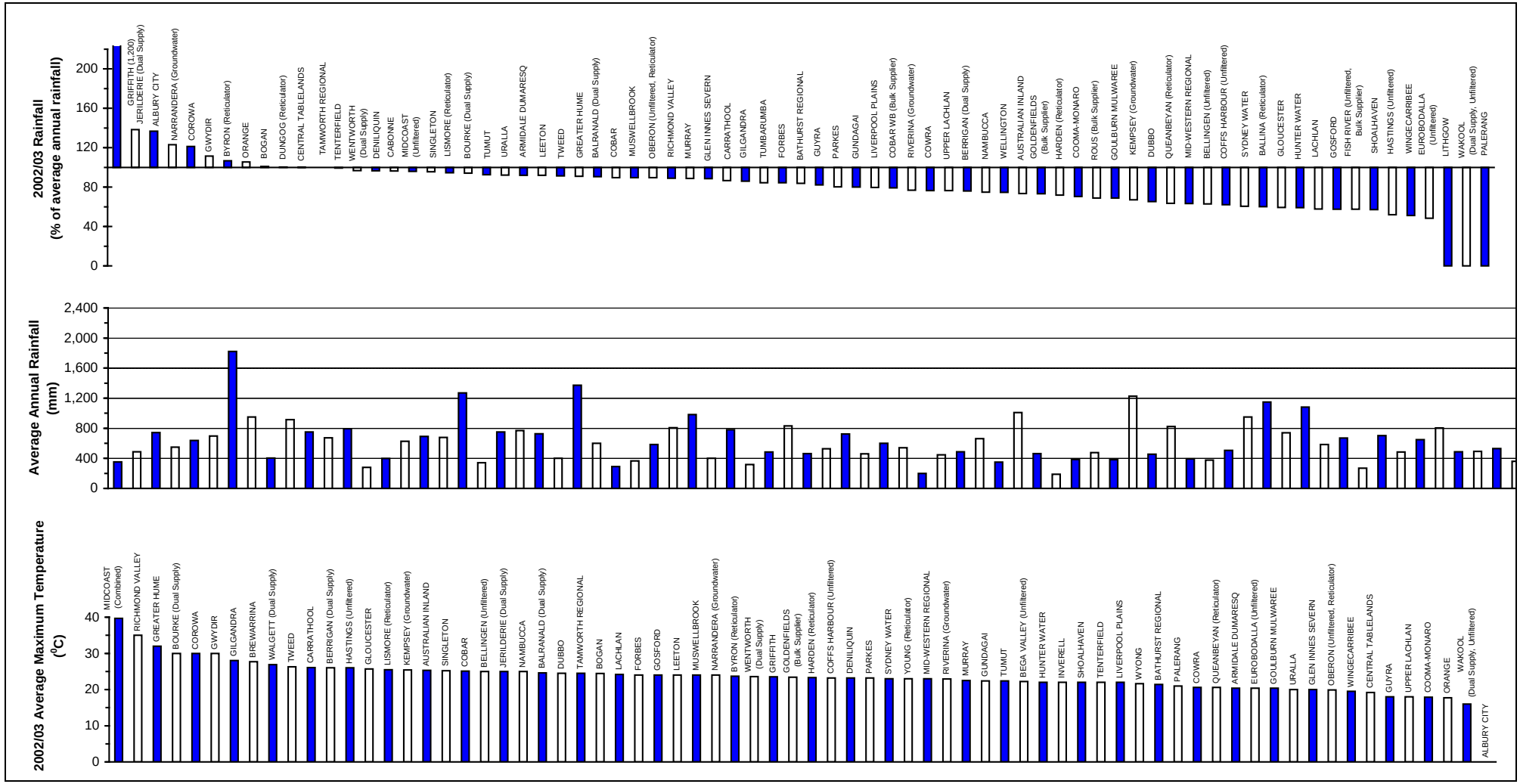
Parameter: $\frac{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of connected Properties per Assessment}}{\text{Length of Trunk Mains (Q10a) + Length of Reticulation Mains (Q10b)}}$

Parameter: Length of Trunk Mains (Q10a) + Length of Reticulation Mains (Q10b)

Notes:

1. The top graph shows the ranked values of number of connected properties per km of water main for each Local Water Utility (LWU). Each bar represents one LWU. The bottom graph of this figure shows the total length of mains for the corresponding LWUs.
2. The Statewide median water supply connected properties per km of main is 33.
3. For general notes see page 10.

7 Rainfall, Temperature – Water Supply



Parameter: $\frac{\text{2003/04 Rainfall (Q17a) x 100}}{\text{Average Annual Rainfall (Q17b)}}$

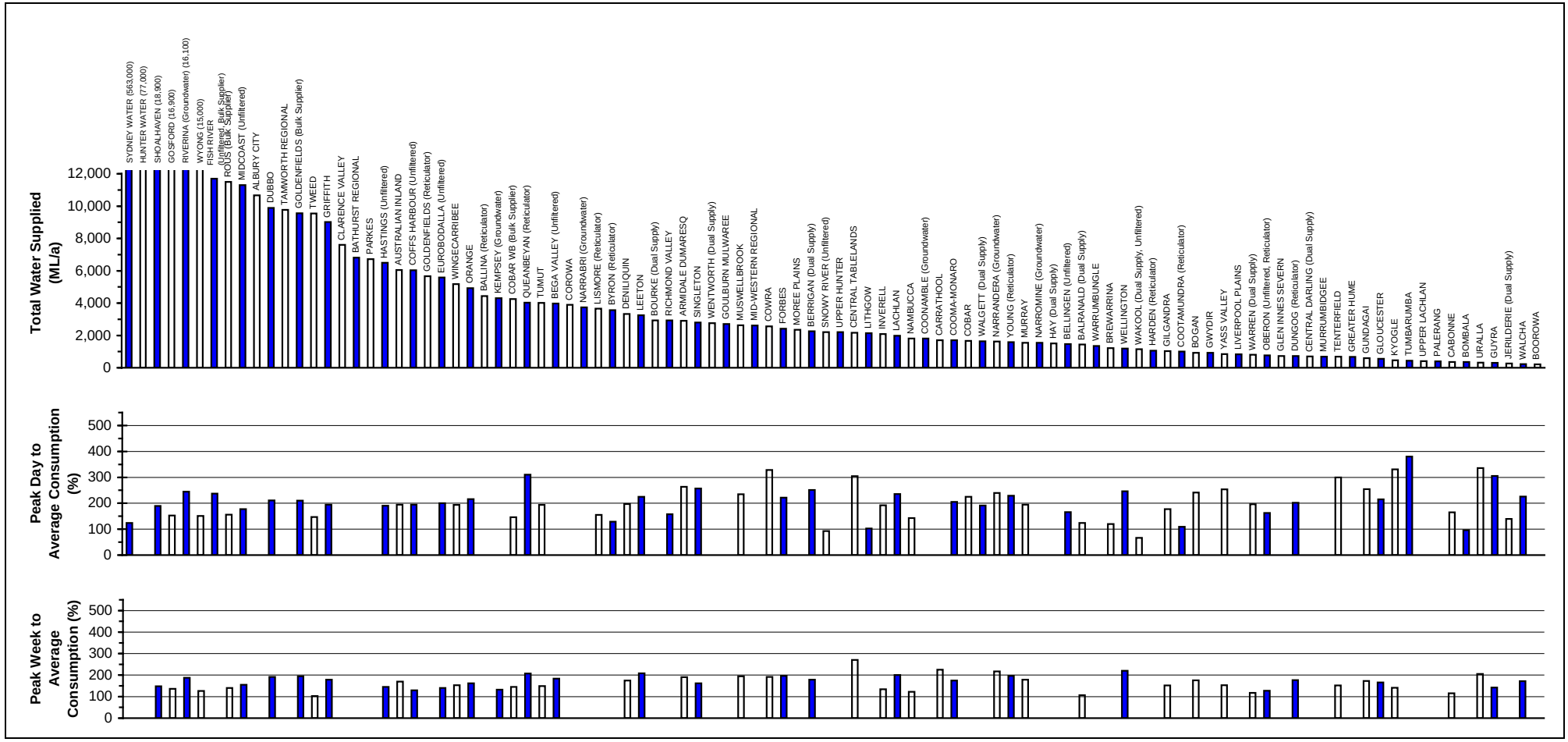
Parameter: Average Annual Rainfall (Q17b)

Parameter: 2003/04 Average Maximum Temperature (Q17c)

Note:

1. For general notes see page 10.

8 Total Water Supplied – Water Supply



Parameter: Total Potable Water Supplied (Q12i) + Non-Potable Water Supplied (Q14a) – Recycled Water (15f)

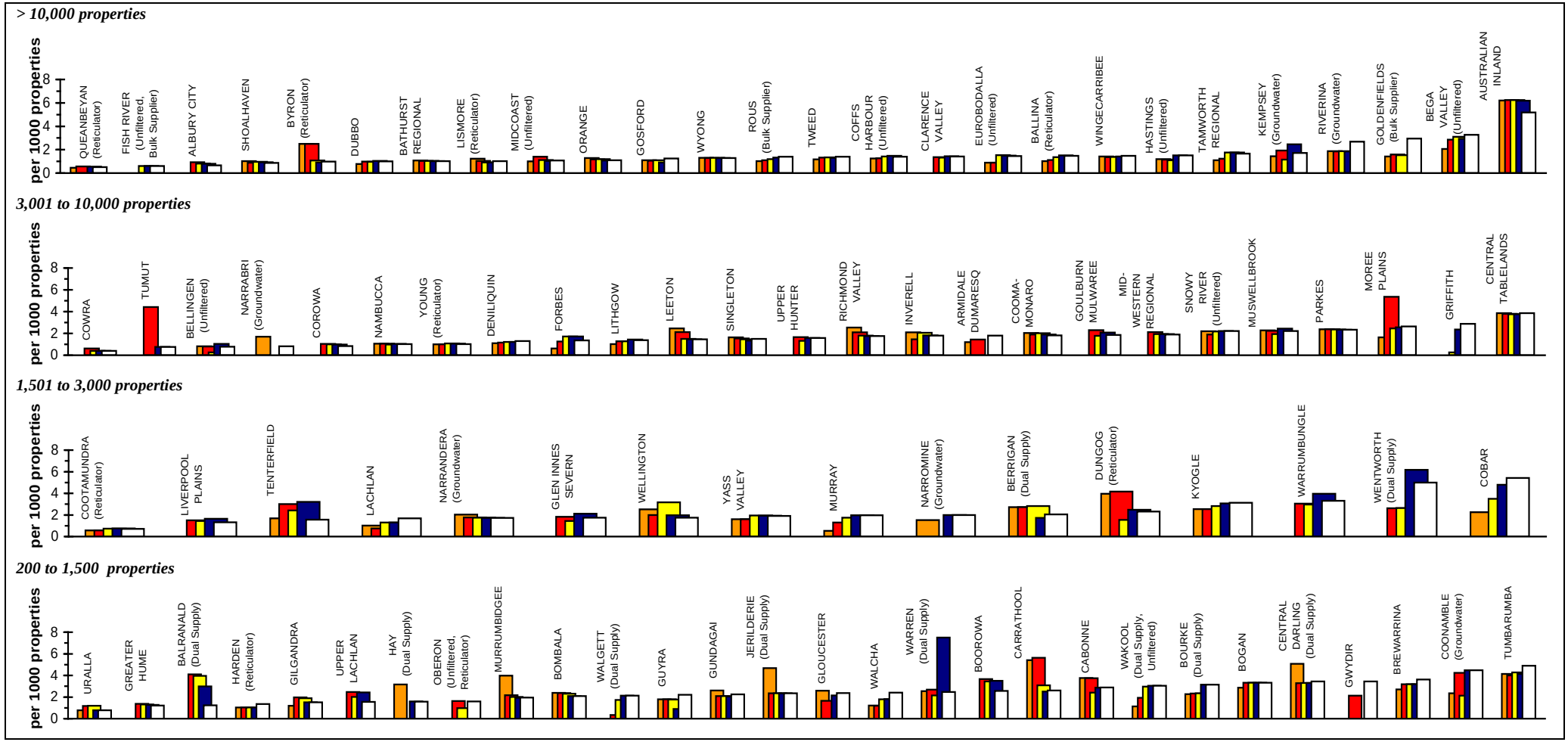
Parameter: $\frac{\text{Peak Day Consumption (Q13a) x 365 x 10}}{\text{Total Potable Water Supplied (Q12i)}}$

Parameter: $\frac{\text{Peak Week Consumption (Q13b) x 52 x 100}}{\text{Total Potable Water Supplied (Q12i)}}$

Note:

1. The top graph shows the total water supplied. The second graph shows the percentage of peak day to average potable water consumption for each Local Water Utility (LWU). Each bar represents one LWU. The third graph shows the percentage peak week to average potable water consumption.
2. For general notes see page 10.

9 Employees per 1000 properties – Water Supply



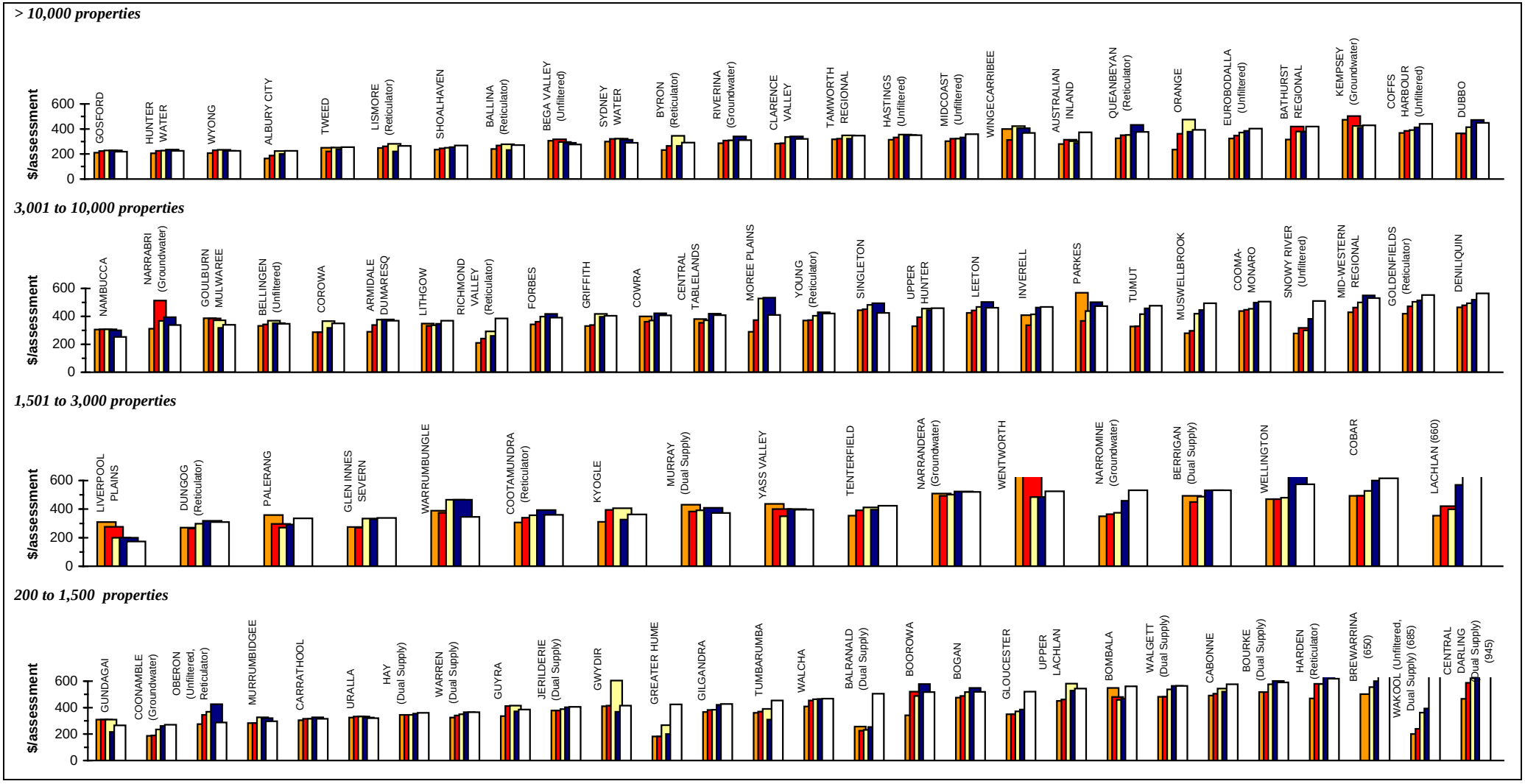
Parameter:

$$\frac{\text{Equivalent Full-time Employees (Q30a) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2003/04 water supply employees per 1000 properties for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the water supply employees per 1000 connected properties for the 26 LWUs shown ***range*** from about 0.4 to 3.9 per connected property. The LWU on the right did not report this indicator for 2003/04. Results for the previous 4 years are also shown.
2. The Statewide median number of water supply employees is 1.3 per 1000 connected properties.
3. For general notes see page 10.

10 Typical Residential Bill – Water Supply

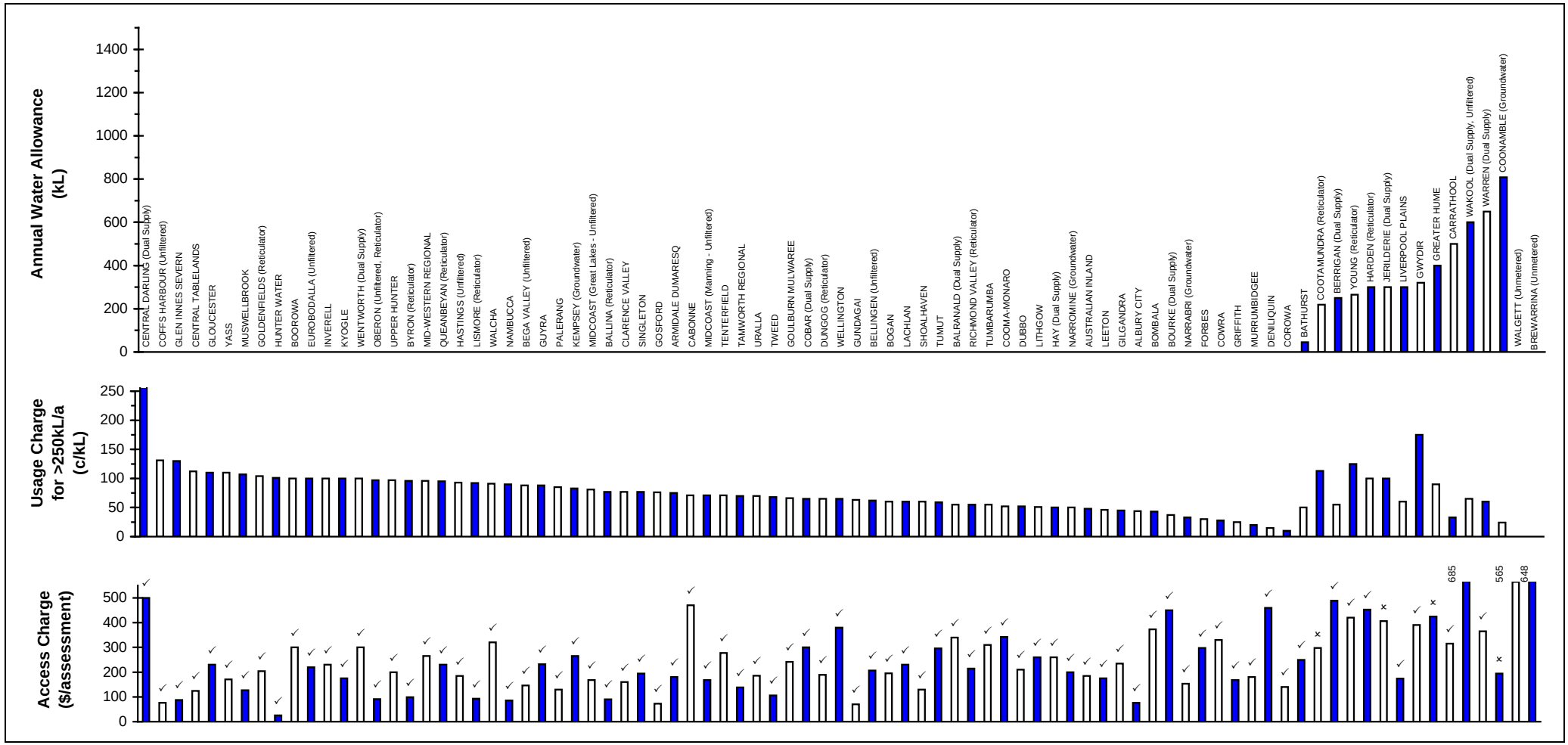


Parameter: (2003/04 Average Residential Water Consumption x 2004/05 Usage Charge) + 2004/05 Access Charge

Notes:

1. This figure shows ranked values of the 2004/05 typical residential bill for water supply for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the typical residential bill in 2004/05 for the 26 LWUs shown ***ranges*** from about ***$254*** to ***$591*** per assessment. Results for the previous 4 years are also shown in Jan 2005$.
2. The 2004/05 Statewide median typical residential bill for water supply is $330 per assessment.
3. For general notes see page 10.

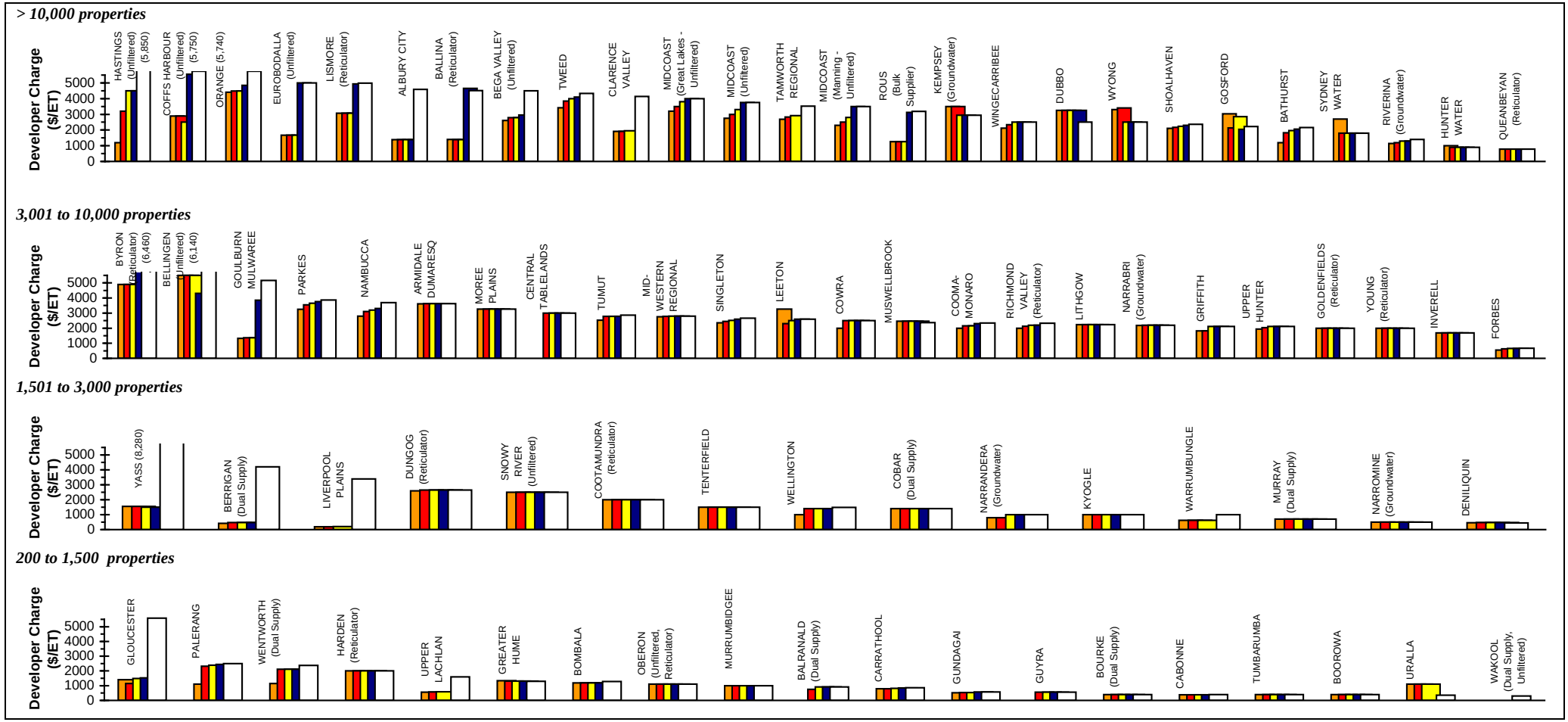
11 Residential Water Allowance, Usage Charge and Access Charge 2004/05 – Water Supply



Note:

1. The top graph shows that 82 Local Water Utilities (LWUs) had a two-part tariff or an inclining block tariff with no water allowance. 15 LWUs had an annual water allowance and 2 LWUs did not have domestic water metering.
2. The residential water usage charge shown is for usage in excess of 250 kL/a or any water allowance. Local Water Utilities (LWUs) with a two-part tariff have the usage charge shown for all water usage. Further information on water supply tariff structures is shown in Tables 6, 6A and 6B.
3. The Statewide median water usage charge was 76 c/kL. 48% of LWUs had a usage charge greater than 90 c/kL. 94% of LWUs had a usage charge greater than 50 c/kL.
4. The residential water access charge for the LWUs with a water allowance is the minimum charge or rate.
5. 93 LWUs had a residential access charge independent of land value. Such utilities are indicated with a "✓" on the bottom graph.
6. For general notes see page 10.

12 Typical Developer Charge – Water Supply

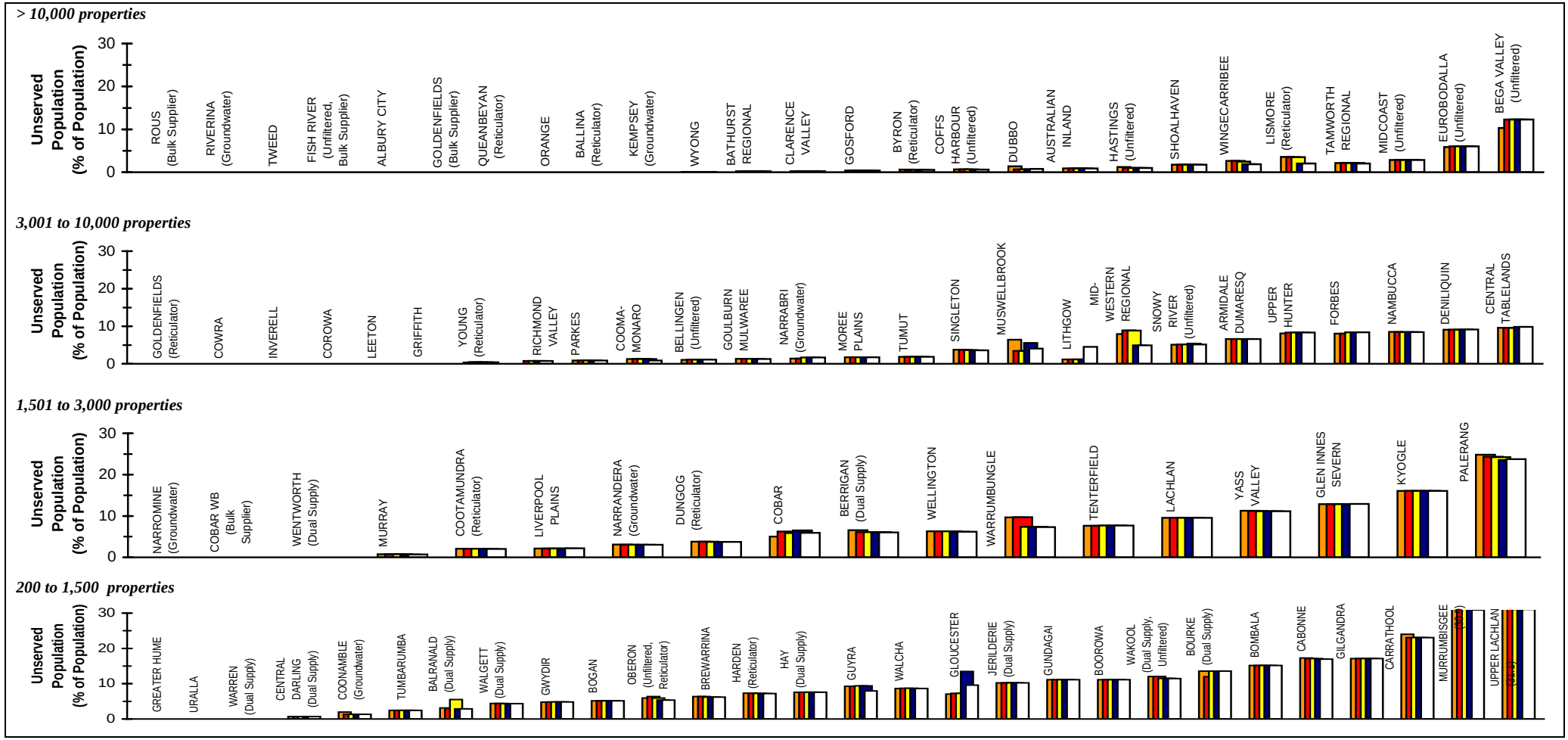


Parameter: Typical Water Supply Developer Charge (Q36)

Notes:

1. This figure shows ranked values of the 2004/05 typical developer charge for water supply for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the typical developer charge for water supply for the 25 LWUs shown ***range*** from about $6,460 to $440 per (equivalent tenement) ET. Results for the previous 4 years are also shown in Jan 2005$.
2. The Statewide median typical water supply developer charge was about $2,500 per equivalent tenement (ET).
3. 84 LWUs levied water supply developer charges. Most of the 14 LWUs which did not levy water supply developer charges had a growth rate of under 5 lots/a.
4. For general notes see page 10.

13 Urban Population Without Water Supply – Water Supply

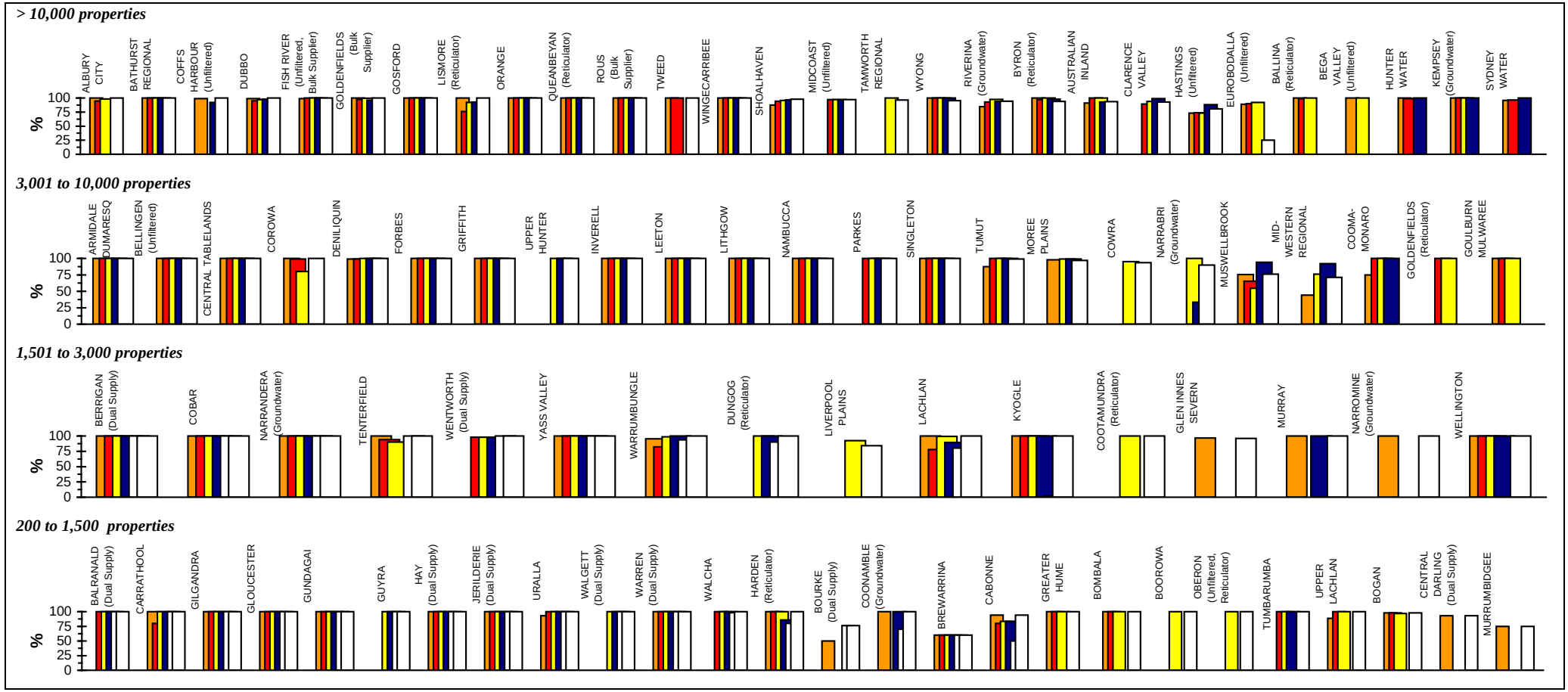


Parameter: $\frac{\text{Unserved Urban Population in LWU Area (Q7b) x 100}}{\text{Population Served (Q1a) + Unserved Population (Q7b)}}$

Notes:

1. This figure shows 2003/04 ranked values of the percentage of urban population without a reticulated public water supply service for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the percentage of urban population without a reticulated public water supply for the 26 LWUs shown ***range*** from about 0 to 9.8%. Results for the previous 4 years are also shown.
2. The Statewide median urban population without a reticulated public water supply was 0.5%.
3. 22% of LWUs had an urban population of at least 500 without a reticulated public water supply; 6% of LWUs had a population of at least 1000 without a reticulated water supply.
4. The percentage of urban population without a reticulated public water supply for the median LWU was 3.1%.
5. 81% of LWUs had over 90% of their urban population served by a reticulated public water supply. Overall, 1.73 million people in non-metropolitan NSW (97.7% coverage) received a reticulated public water supply service.
6. For general notes see page 10.

14 Physical Water Quality Compliance – Water Supply

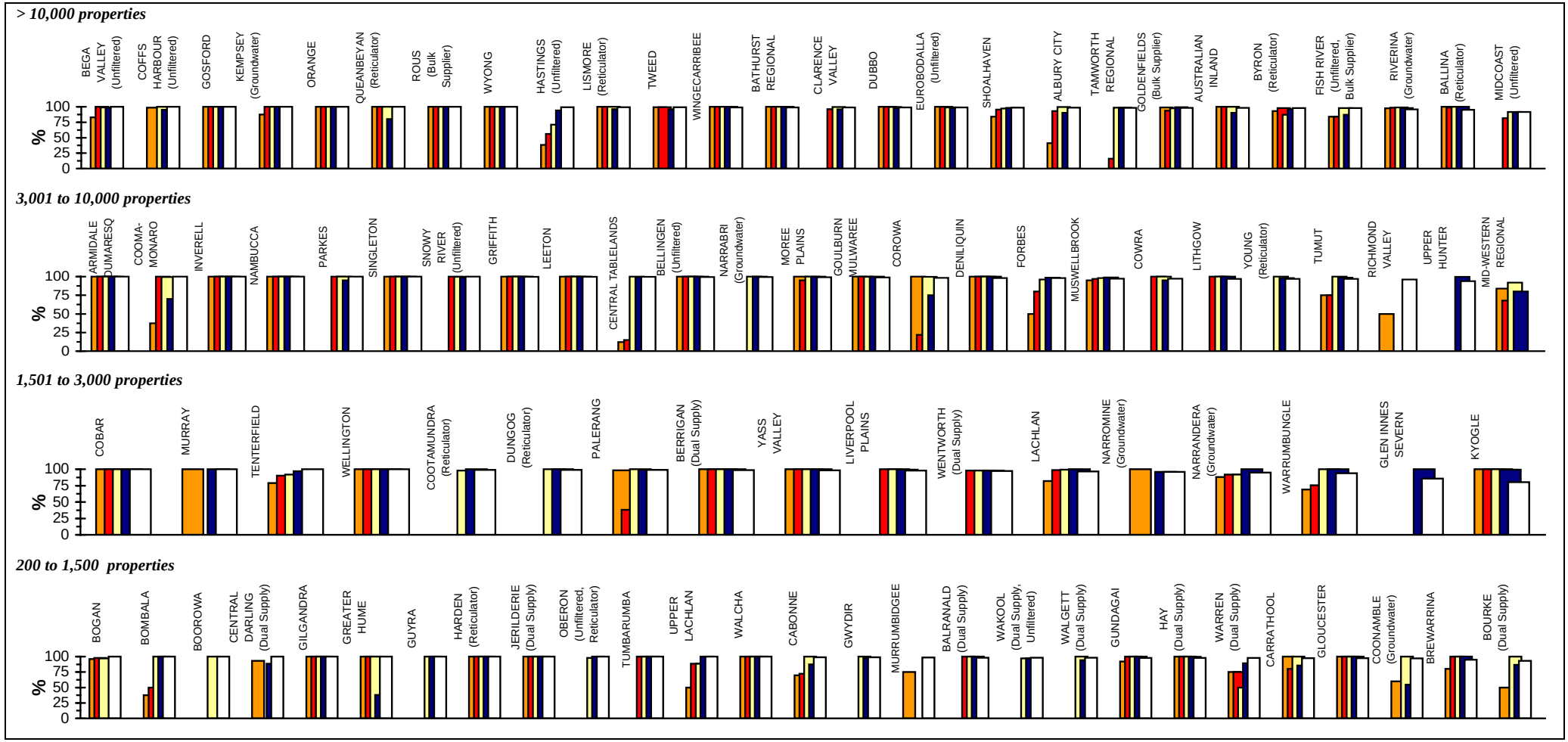


Parameter: Percentage of distribution system water samples complying with physical criteria of the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines (Q42a and Q42b).

Notes:

1. This figure shows the 2003/04 ranked values of distribution system compliance with the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines for physical water quality for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), for the property range from 2,001 to 10,000, the physical water quality compliance for the 26 LWUs shown ***range*** from about 100 to 71%. The 7 LWUs on the right did not report compliance for 2003/04. Results for the previous 4 years are also shown.
2. Results for 1999/00 to 2001/02 are also on the basis of the 1996 Guidelines. 95% of all physical samples tested in 2003/04 achieved 100% compliance with these guidelines. 79% of LWUs complied with the guidelines in 2003/04.
3. For LWUs with more than one water treatment works, the reported compliance has been pro-rated on the basis of the number of samples tested at each treatment works.
4. The Statewide median physical water quality compliance is 100 %.
5. For general notes see page 10.

15 Chemical Water Quality Compliance – Water Supply

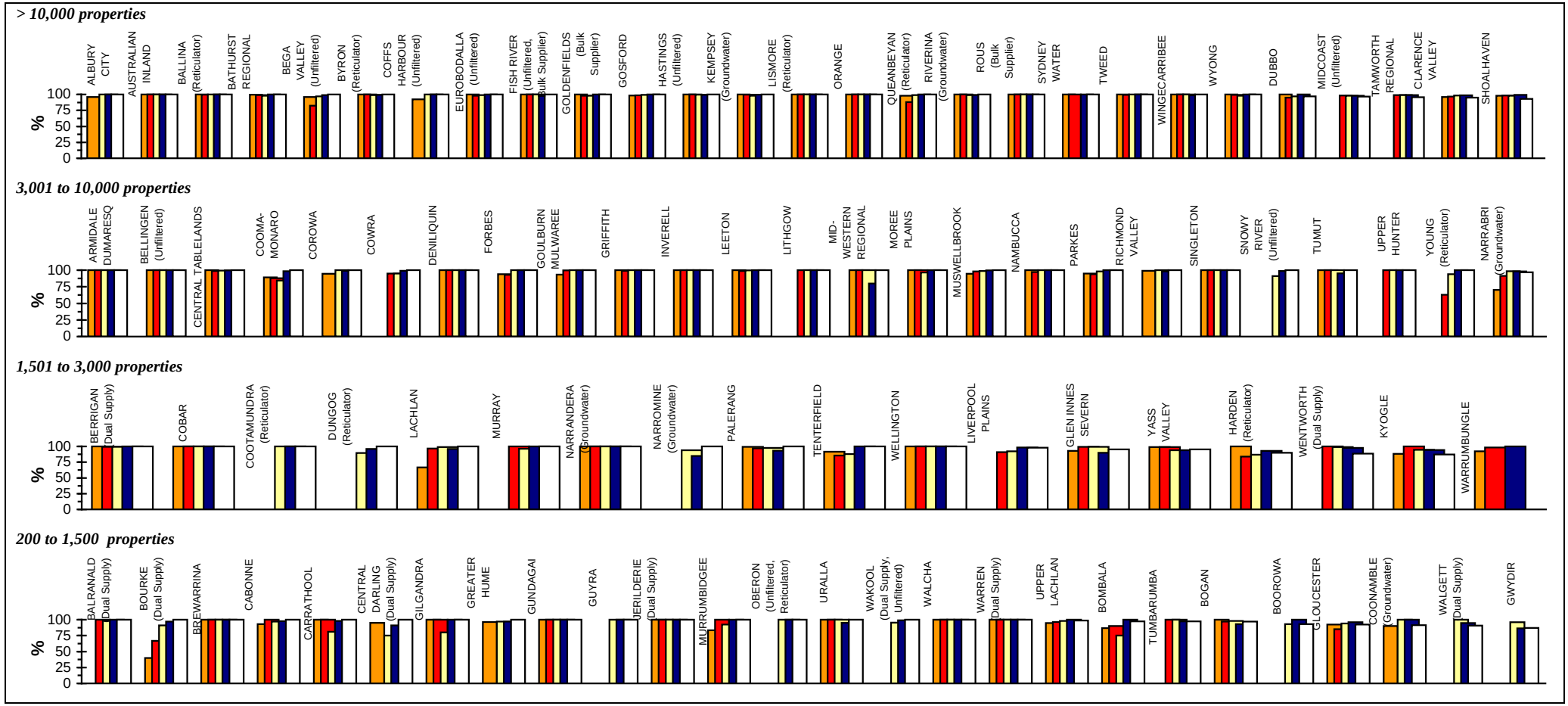


Parameter: Percentage of distribution system water samples complying with chemical criteria of the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines

Notes:

1. This figure shows the 2003/04 ranked values of distribution system compliance with the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines for chemical water quality for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the chemical water quality compliance for the 26 LWUs shown ***range*** from about ***100 to 62%***. Results for the previous 4 years are also shown. The LWU on the right did not report this indicator for 2003/04.
2. 98% of all chemical samples tested in 2003/04 achieved 100% compliance with these guidelines. 81% of the LWUs complied with the guidelines in 2003/04.
3. For LWUs with more than one water treatment works, the reported compliance has been pro-rated on the basis of the number of samples tested at each treatment works.
4. The Statewide median chemical water quality compliance is 100%.
5. For general notes see page 10.

16 E. coli Water Quality Compliance – Water Supply

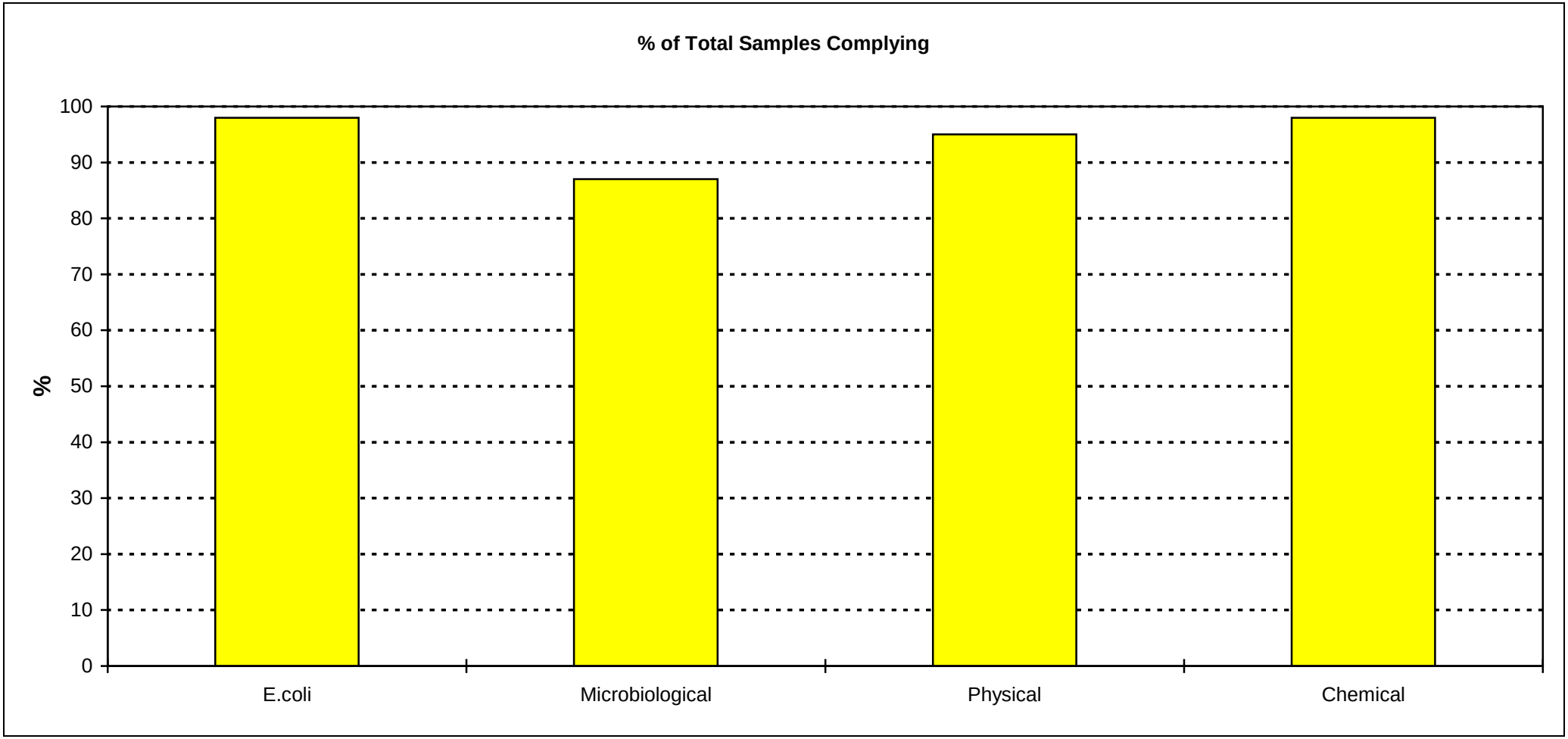


Parameter: Percentage of distribution system water samples complying with E. coli criteria of the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines

Notes:

1. This figure shows the 2003/04 ranked values of distribution system compliance with the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines for E. coli for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the E. coli water quality compliance for the 26 LWUs shown ***range*** from about ***100 to 83%***. Results for the previous 4 years are also shown. The 4 LWUs on the right did not report this indicator for 2003/04.
2. Microbiological compliance covers both E. coli and total coliforms. The health-related parameter is E. coli – 98% of all samples tested in 2003/04 contained no E. coli. 68% of the LWUs complied the 1996 Guidelines for E. coli in 2003/04. The detailed performance of each treatment works or chlorination station in non-metropolitan NSW is shown in Appendix D1.
3. For LWUs with two or more treatment works, the reported compliance has been pro-rated on the basis of the number of samples tested at each treatment works.
4. The Statewide median microbiological water quality compliance is 100%.
5. For general notes see page 10.

17 Compliance with 1996 Australian Drinking Water Guidelines – Water Supply



Notes:

1. E. coli Water Quality Guidelines (health related) – 98% of the 27,300 samples tested for non-metropolitan NSW contained no E. coli. 68% of Local Water Utilities (LWUs) complied with the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines for E. coli.
2. Total Coliforms Water Quality Guidelines (1996) – 87% of the 32,300 samples tested for non-metropolitan NSW contained no coliforms. 29% of LWUs complied with the 1996 Guidelines for total coliforms. Total coliforms is not longer a health related parameter in the 2004 Australian Drinking Water Guidelines. NSW Health has advised LWUs accordingly.
3. Physical Water Quality Guidelines (1996) – 95% of the 26,900 samples tested for non-metropolitan NSW achieved 100% physical compliance. 72% of LWUs complied with the 1996 Guidelines for physical water quality.
4. Chemical Water Quality Guidelines (1996) – 98% of the 44,900 samples tested for non-metropolitan NSW achieved 100% chemical compliance. 93% of LWUs complied with the 1996 Guidelines for chemical water quality.
5. 28% of LWUs did not report on physical water quality compliance and 5% did not report on chemical compliance. All LWUs, including those responsible only for reticulation, should carry out the necessary water quality sampling and report thereon in future.
6. For general notes see page 10.

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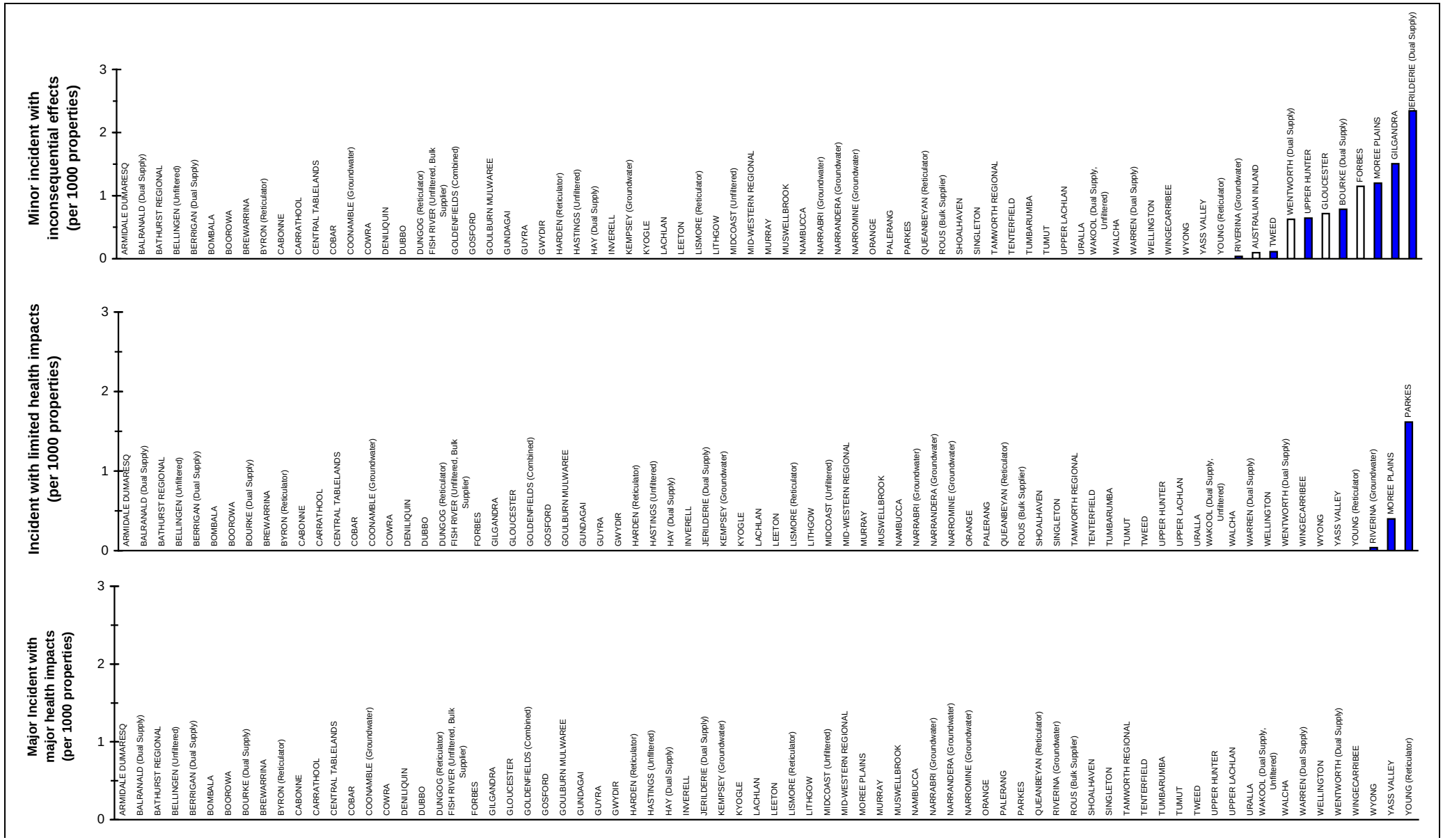
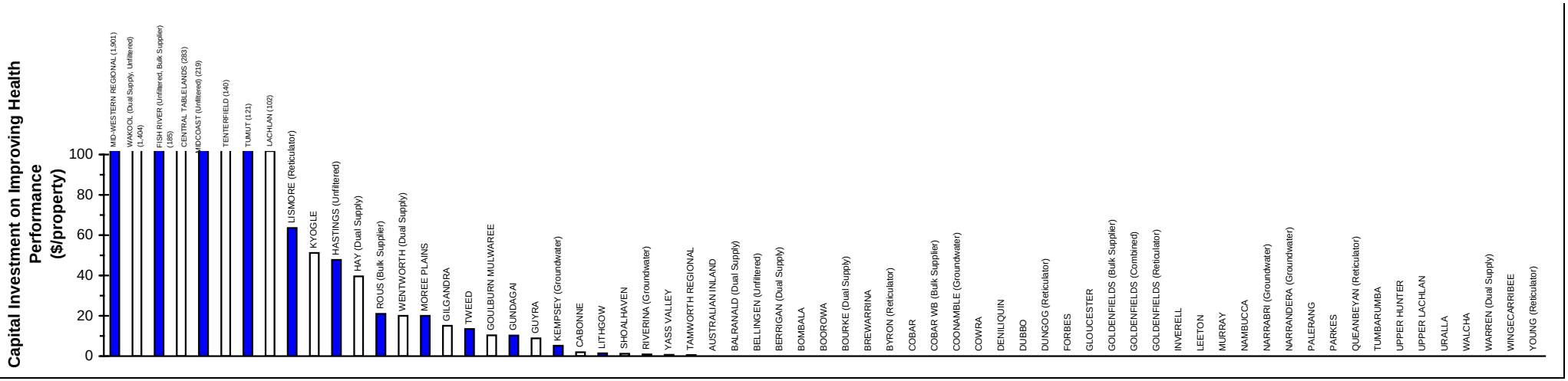
18 Public Health Incidents, Capital Investment – Water Supply





Parameter: $\frac{\text{Total Number of Minor Incident with Inconsequential Effects (TLB Q5a)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Total Number of Incident with Limited Health Impacts (TLB Q5b)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Total Number of Major Incident with Major Health Impacts (TLB Q5c)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Capital Expenditure on Improving Health Performance ($)(TLB Q3c)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Note:

1. For general notes see page 10.

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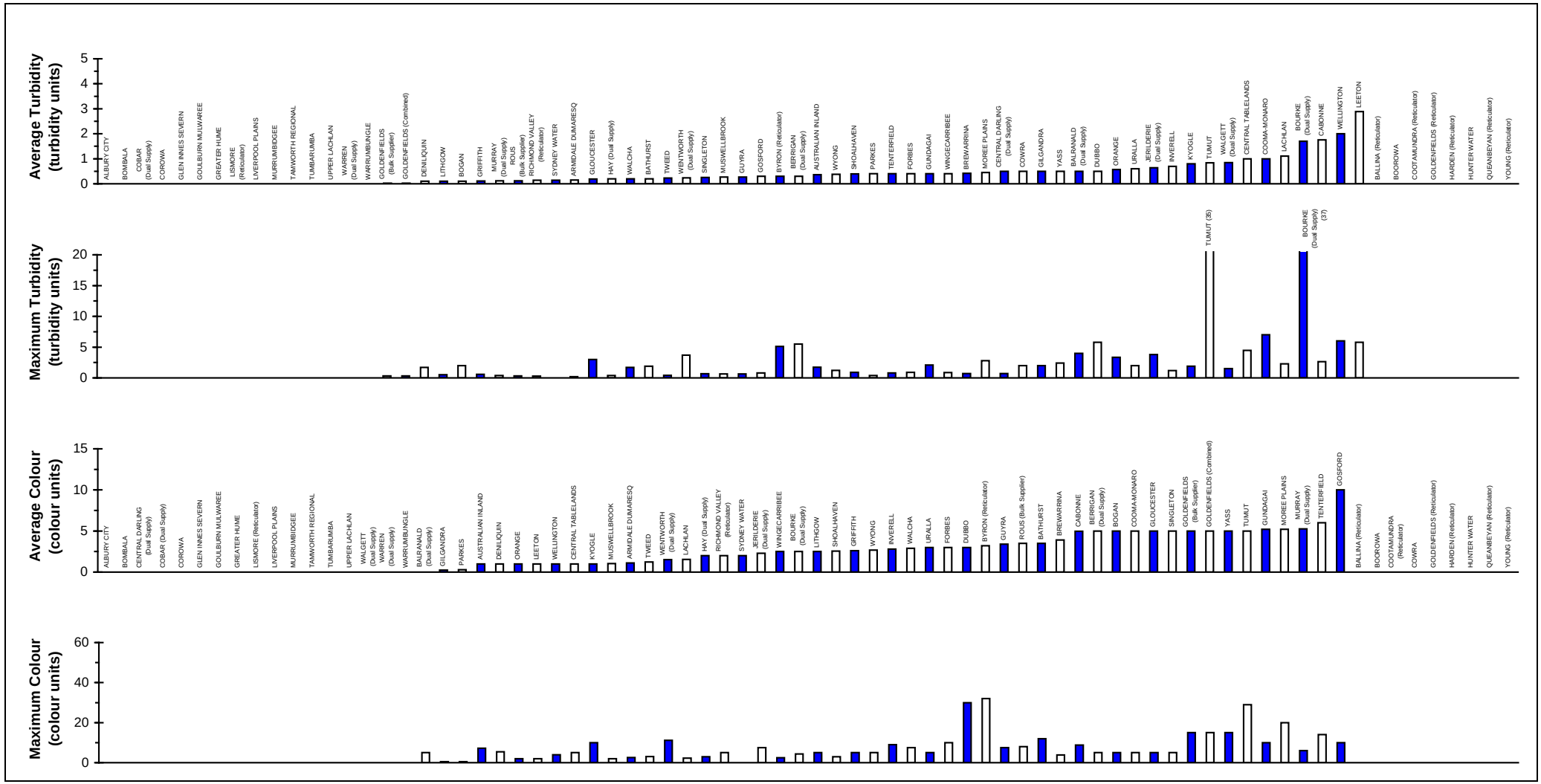
19 Turbidity and Colour for Filtered Supplies – Water Supply

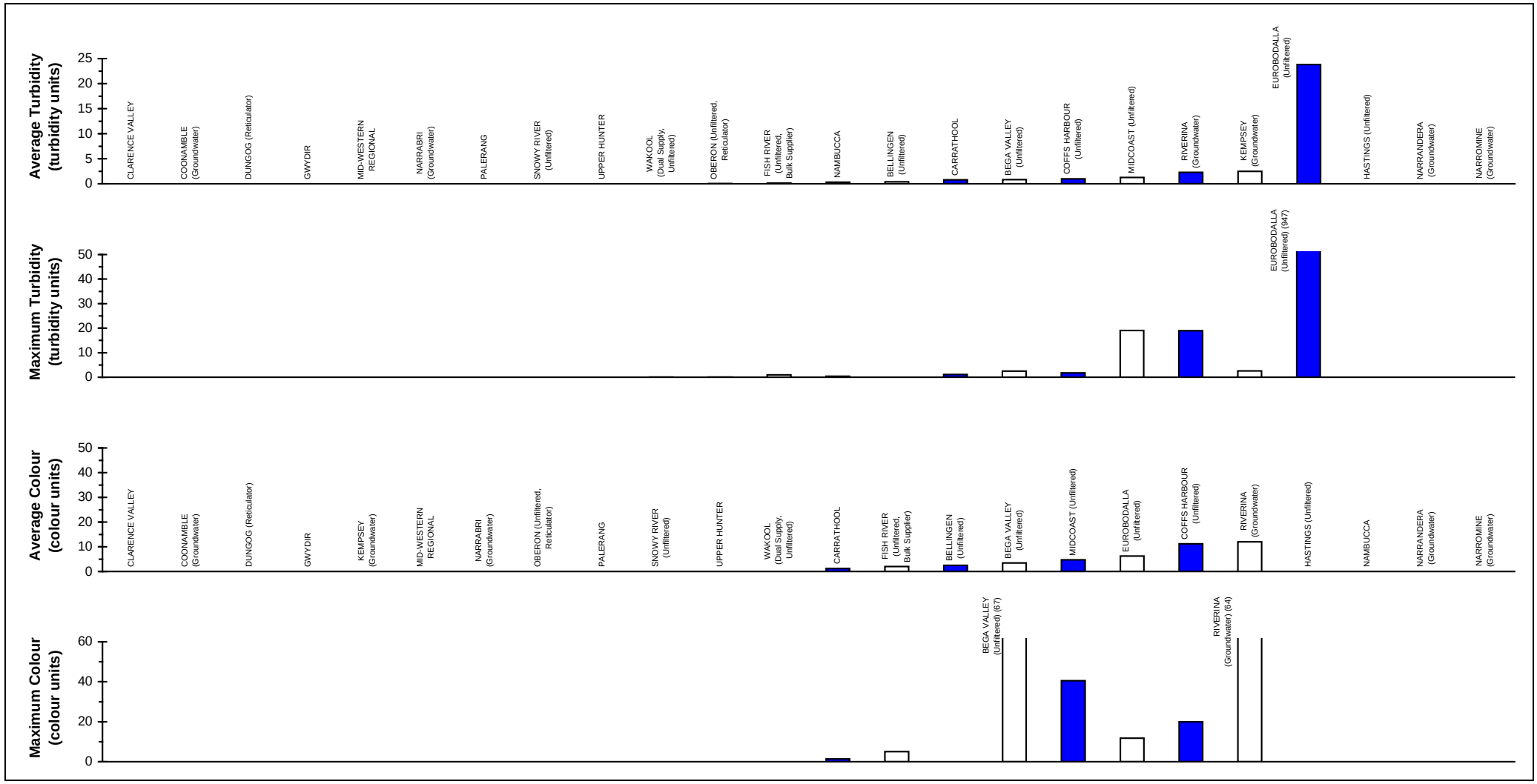


Parameter: Treated Water Average Turbidity (Q40d), Maximum Turbidity (Q40c), Treated Water Average Colour (Q39d), Maximum Colour (Q39c).

Notes:

1. Only Local Water Utilities (LWUs) with at least filtration and disinfection for over 50% of their supply have been considered. The reported results are the weighted average on the basis of volume treated for each LWU's water treatment work. A number of LWUs have some unfiltered supplies (<50% of their total supply) which increases the reported colour and turbidity values.
2. 97% of the 76 reporting LWUs had average turbidity not exceeding 2 turbidity units. 91% of these LWUs had average turbidity not exceeding 1 turbidity unit.
3. 99% of the 75 reporting LWUs had average colour not exceeding 8 colour units. 92% of these LWUs had average colour not exceeding 5 colour units.
4. 15% of LWUs were unable to report on these items. All LWUs should carry out the necessary sampling and report thereon in future.
5. For general notes see page 10.

20 Turbidity and Colour for Unfiltered Supplies – Water Supply

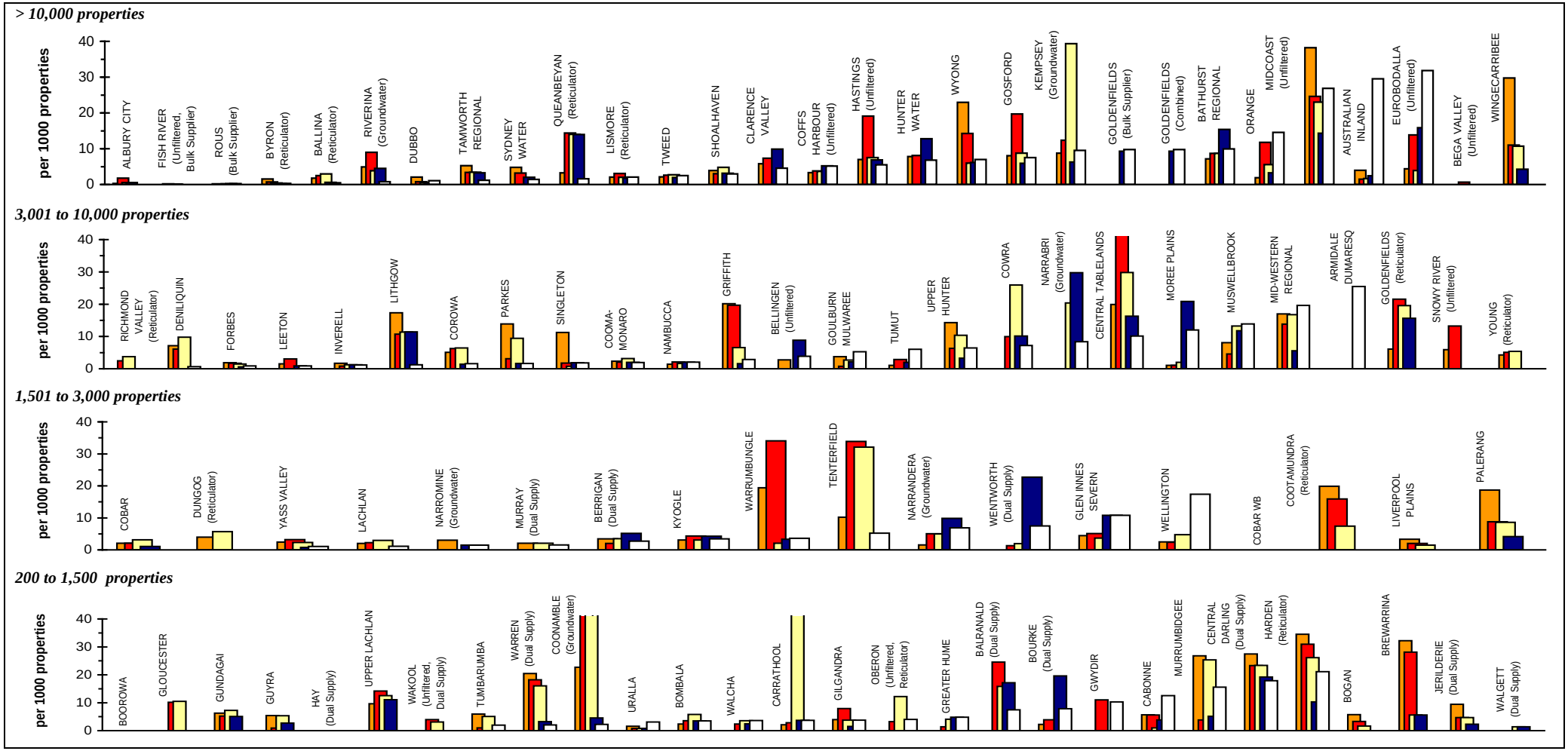


Parameter: Raw Water Average Turbidity (Q40b), Maximum Turbidity (Q40a), Raw Water Average Colour (Q39b), Maximum Colour (Q39a).

Notes:

1. Only unfiltered reporting supplies have been considered.
2. 91% of the 23 reporting LWUs had average turbidity not exceeding 2 turbidity units.
3. All of the 23 reporting Local Water Utilities (LWUs) had average colour not exceeding 15 colour units. 78% of these LWUs had average colour exceeding 5 colour units.
4. For general notes see page 10.

21 Water Quality Complaints – Water Supply



Parameter:

$$\frac{\text{No. of Water Quality Complaints (46a) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

1999/00 2000/01 2001/02 2002/03 2003/04

Notes:

1. This figure shows the 2003/04 ranked values of the number of water quality complaints per 1000 connected properties for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the water quality complaints for the 26 LWUs shown ***range*** from about ***0 to 26*** per 1000 connected properties. The 3 LWUs on the right did not report this indicator for 2003/04. Results for the previous 4 years are also shown.
2. The Statewide median number of water quality complaints is 5 per 1000 connected properties.
3. For general notes see page 10.

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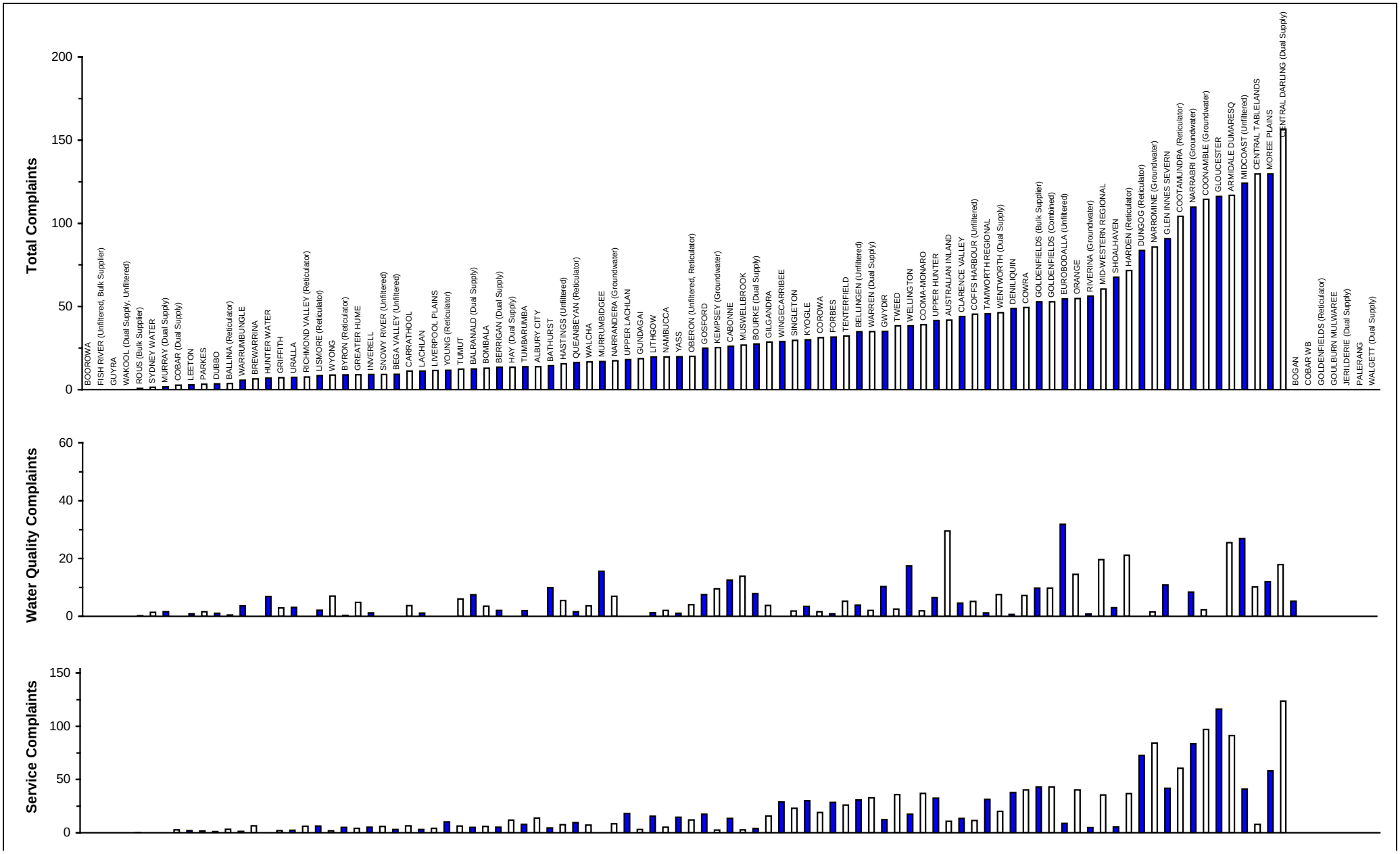
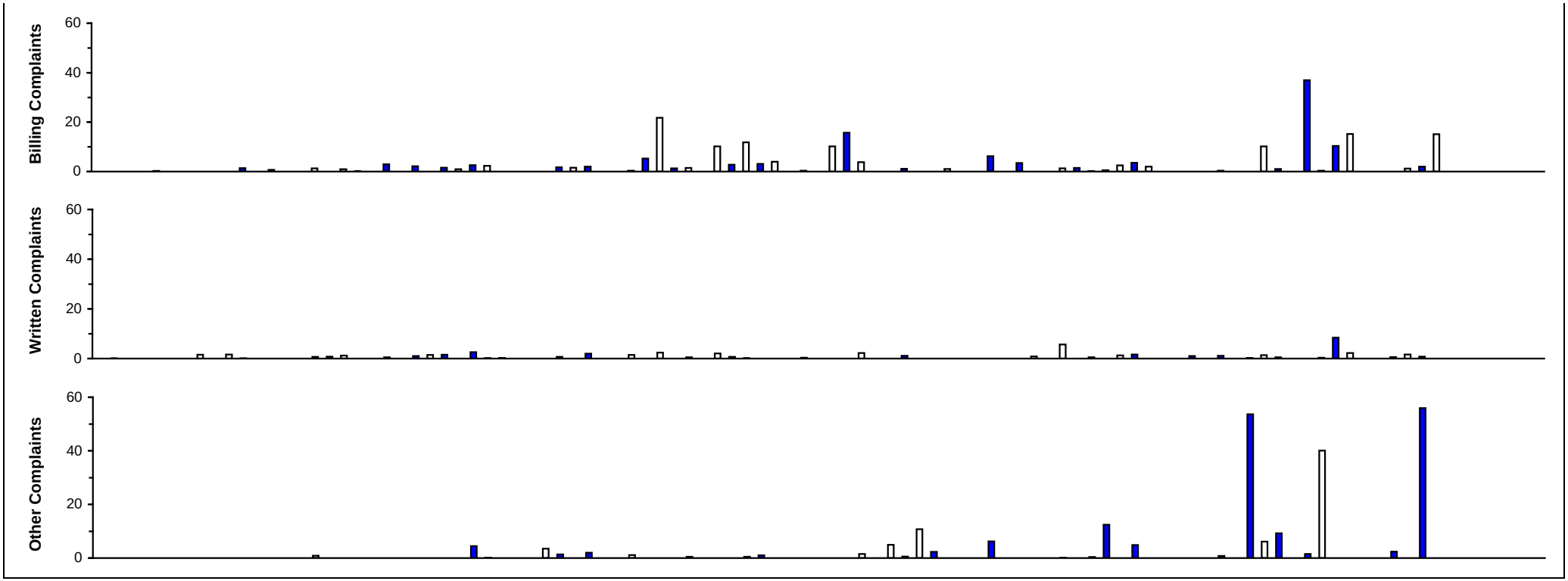
22 Complaints (per 1000 properties) – Water Supply





Parameter: $\frac{\text{Total No. of Complaints [(Q20a) + (Q22) + (Q23) + (Q46a)] x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Water Quality Complaints Reported (Q46a)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Water Service Complaints Reported (Q20a)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Billings Complaints Reported (Q22)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Written Complaints Reported (Q24)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Other Complaints Reported (Q23)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Note:

1. For general notes see page 10.

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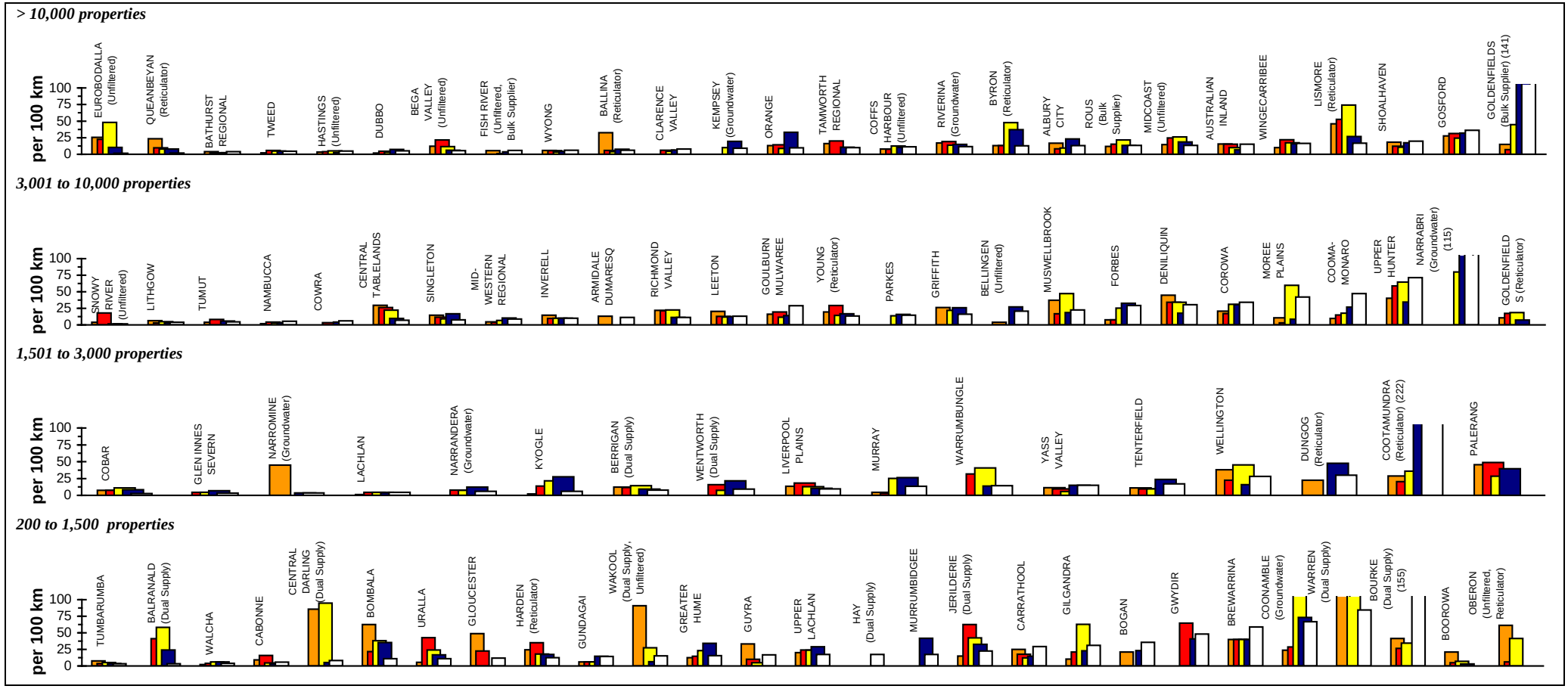
23 Number of Water Main Breaks – Water Supply

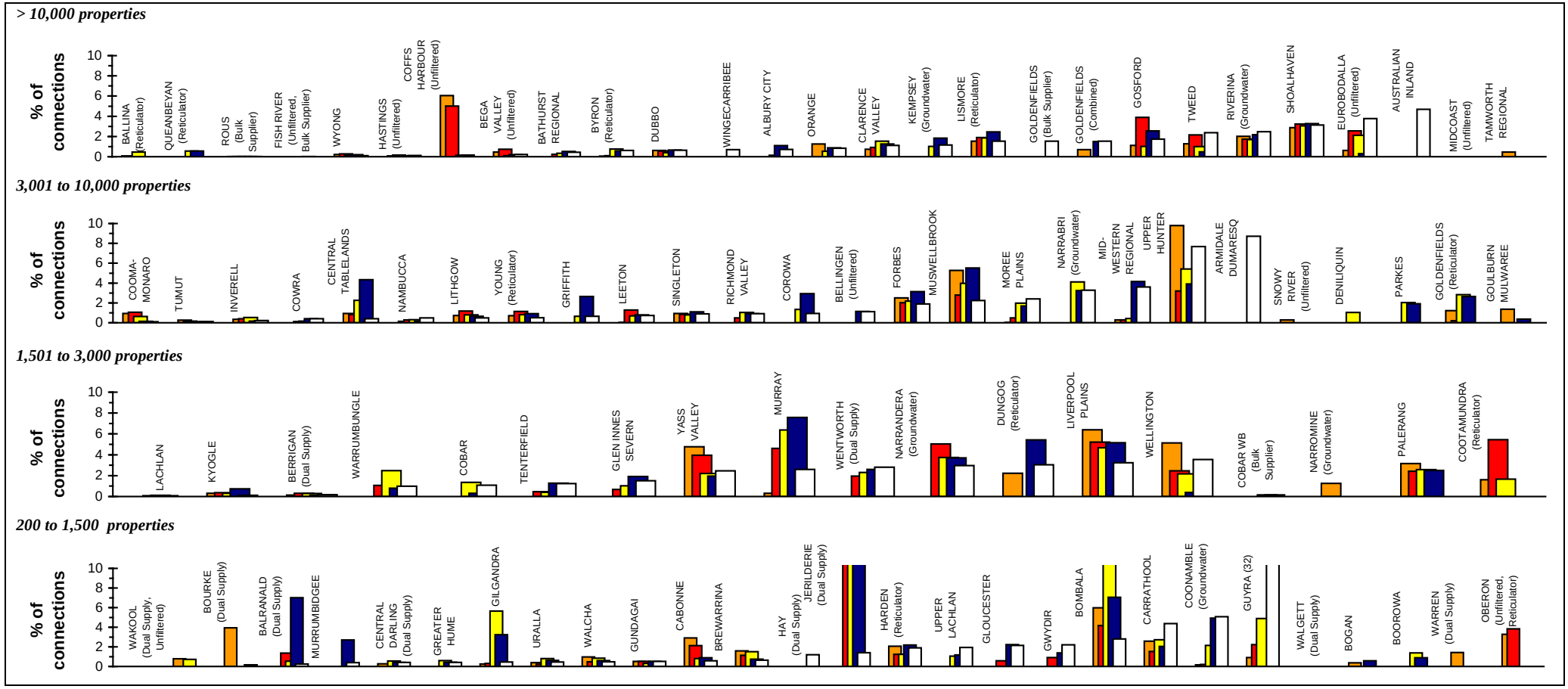


Parameter: $\frac{\text{No. of Pipeline Breaks (Q28a) x 100}}{\text{Length of Distribution and Trunk Mains (Q10c)}}$

Notes:

1. This figure shows the 2003/04 ranked values for water supply main breaks for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served. Each white bar represents one LWU – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the number of main breaks for the 26 LWUs shown ***range*** from 2 to 115 breaks per 100 km of water mains. The 2 LWUs on the right did not report this indicator for 2003/04. Results for the previous 4 years are also shown.
2. The Statewide median number of water supply main breaks is 11 per 100km of water main.
3. For general notes see page 10.

24 Service Connection Failures – Water Supply



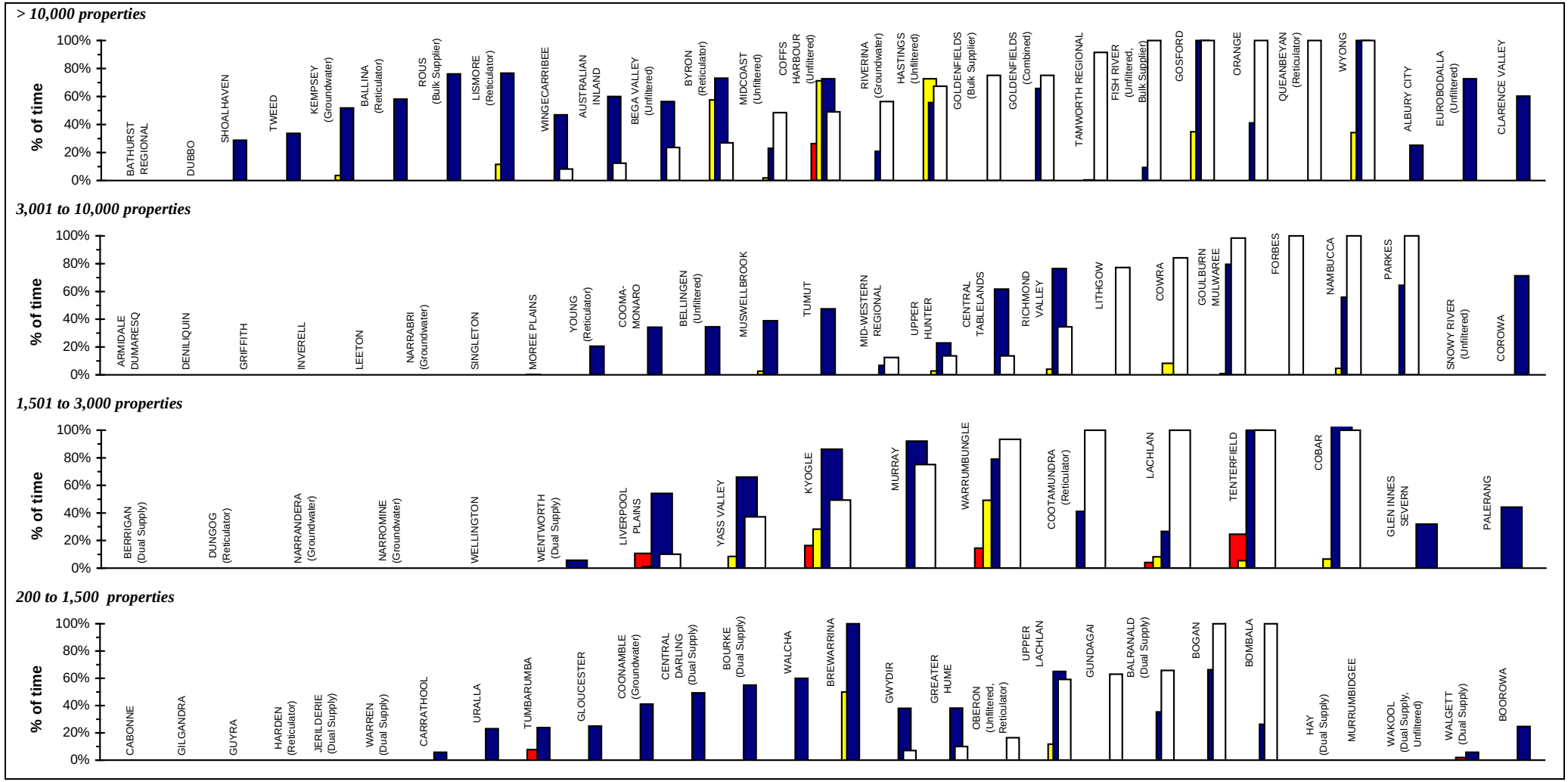
Parameter:

$$\frac{\text{No. of Service Connections Failures (Q28b) x 100}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows the 2003/04 ranked values for water supply service connection failures for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the number of service connection failures for the 26 LWUs shown ***range*** from about 0.1% to 8.7%. The 5 LWUs on the right did not report this indicator for 2003/04. Results for the previous 4 years are also shown.
2. For general notes see page 10.

25 Drought Water Restrictions – Water Supply

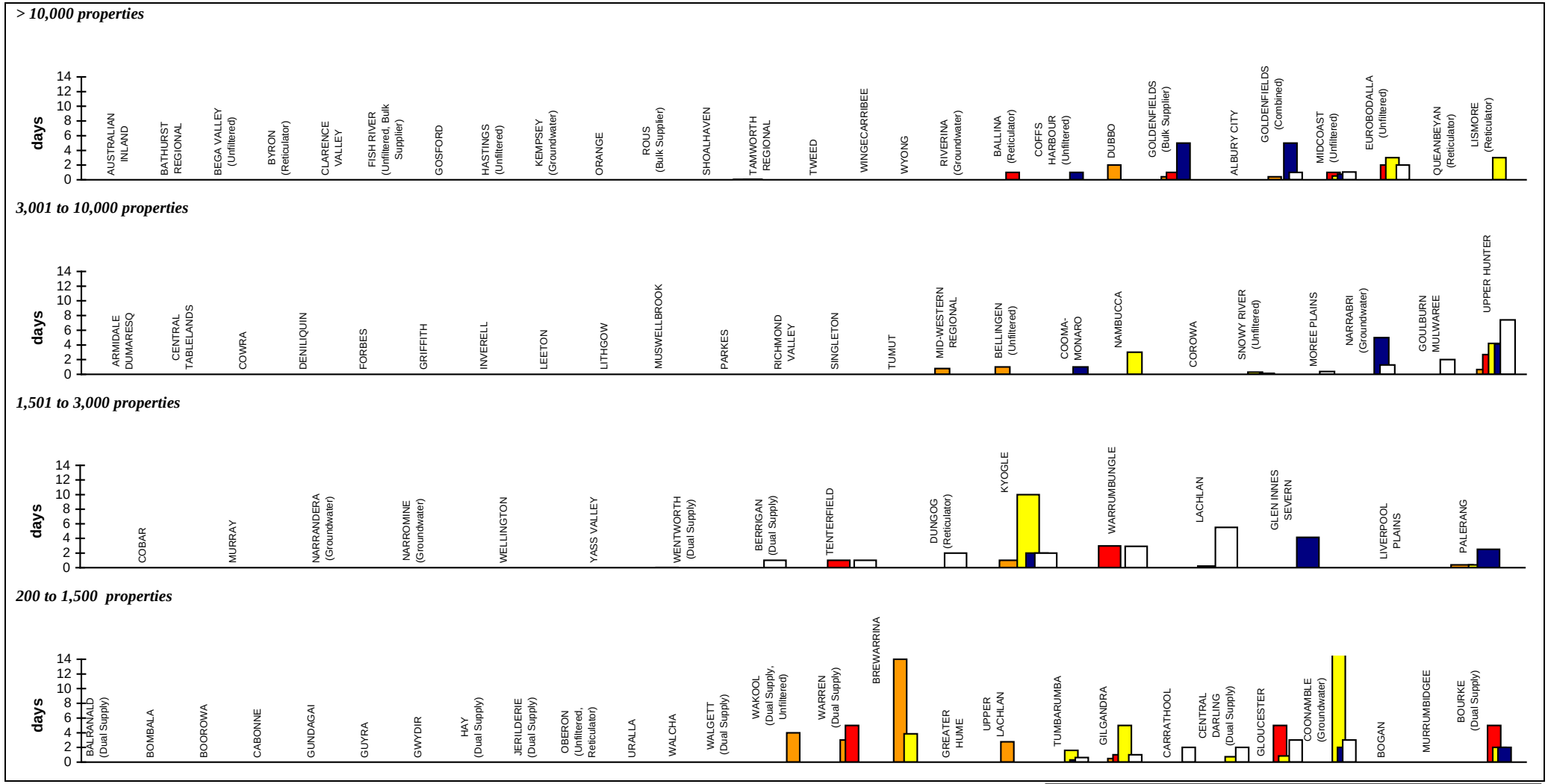


Parameter: $\frac{\text{No. of Days of Water Restrictions Due to Drought (Q27) x 100}}{\text{365 Days}}$

Notes:

1. This figure shows the 2003/04 ranked values of water restrictions due to drought for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served. Each bar white represents one LWU – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), 10 of the 26 LWUs shown reported water restrictions. The 3 LWUs on the right did not report on this item. Results for the previous 4 years are also shown.
2. The Statewide median for water restrictions is 43% of the time.
3. For general notes see page 10.

26 Chlorination System Malfunction – Water Supply

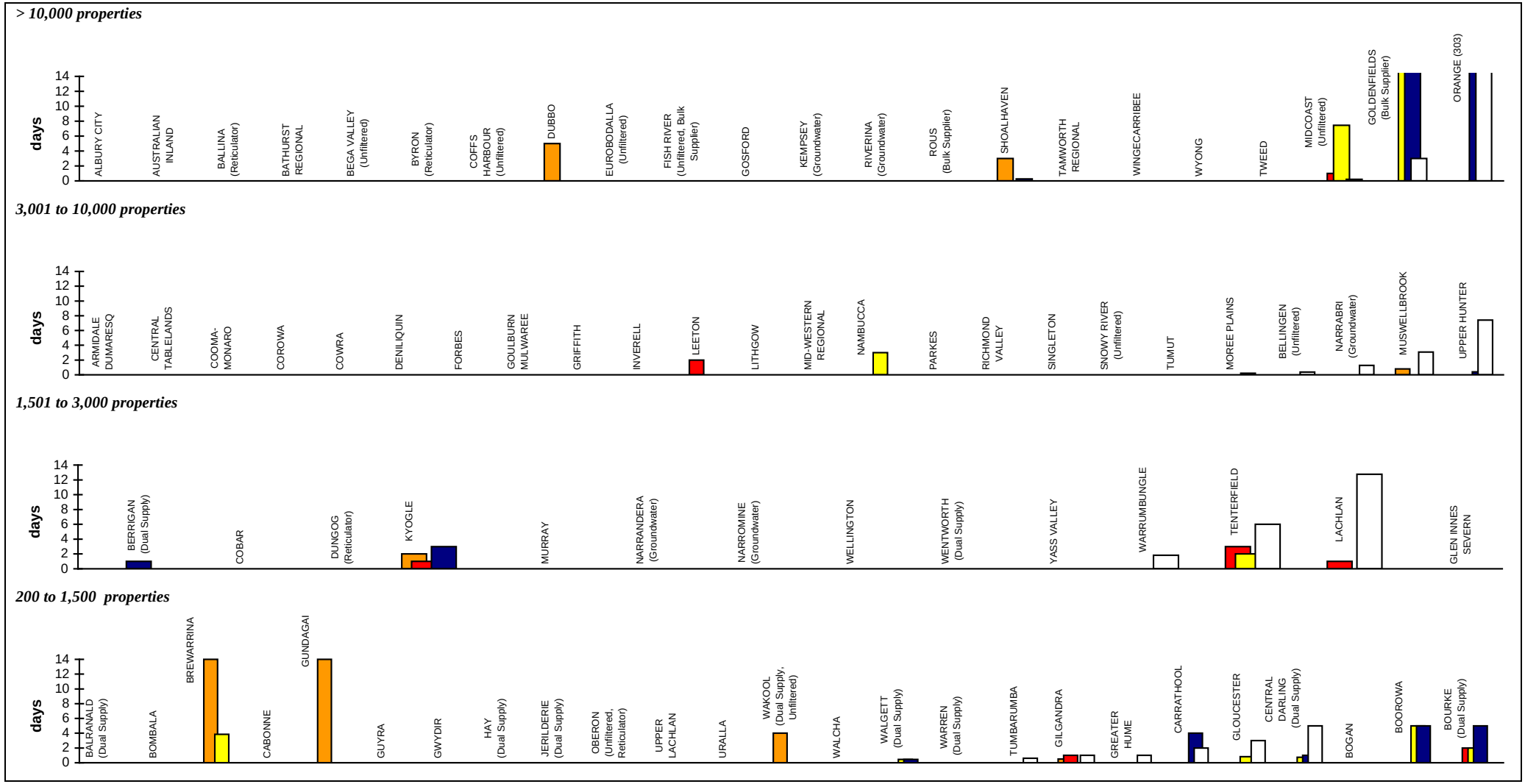


Parameter: Numbers of Days Chlorination System failed to Operate (Q44)

Notes:

1. This figure shows the 2003/04 ranked number of days the chlorination system for potable water supplies did not operate for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the number of days the chlorination system did not operate for the 26 LWUs shown ***range*** from 0 to 7.4 days. Results for the previous 4 years are also shown.
2. For LWUs with more than one chlorination system, the weighted average (based on capacity) of days was used.
3. For general notes see page 10.

27 Treatment Works Malfunction – Water Supply

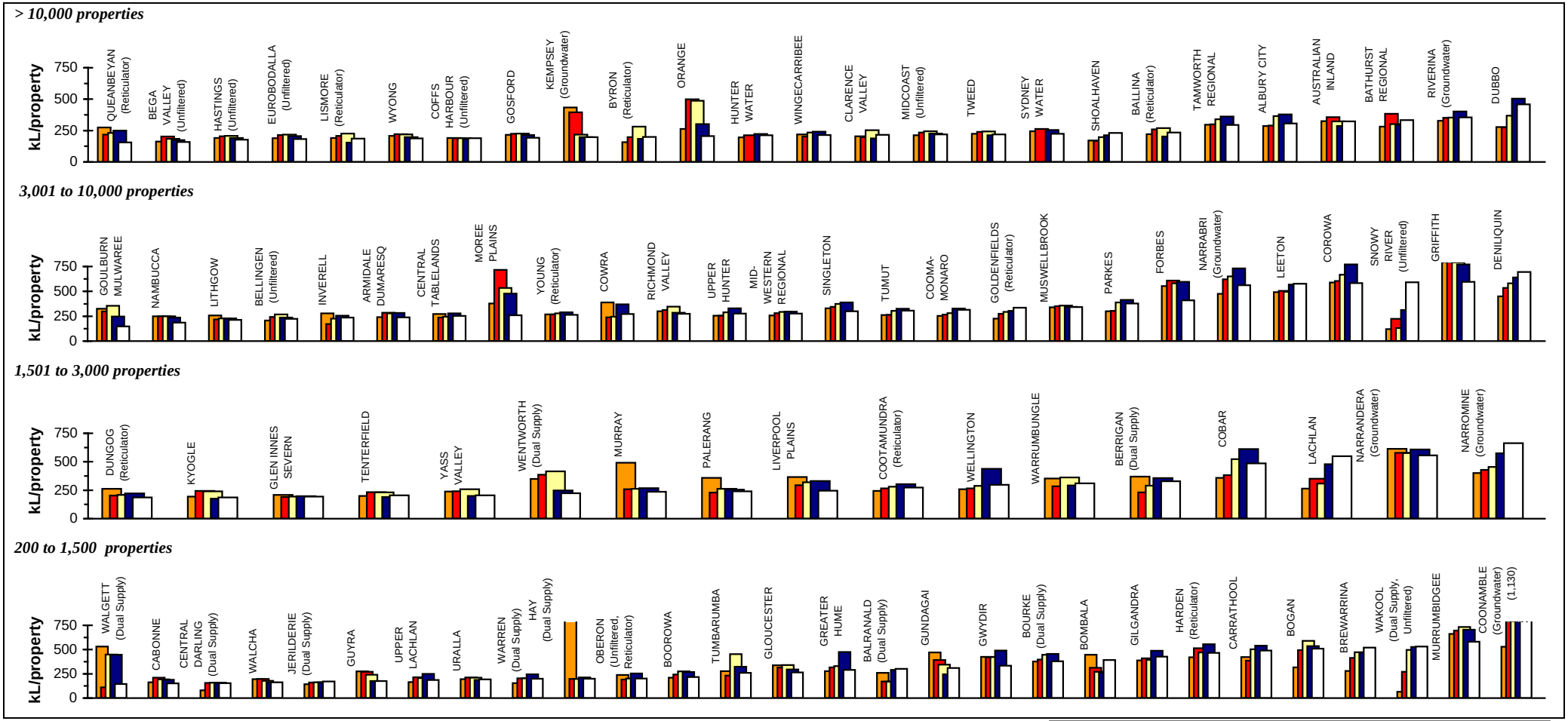


Parameter: Number of days of major Malfunction of Treatment Processes (Q45)

Notes:

1. This figure shows the 2003/04 ranked number of days of major malfunction of treatment processes for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served. Each white bar represents one LWU – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the number of days of treatment work malfunction for the 26 LWUs shown ***range*** from 0 to 7.4 days. The 2 LWUs on the right did not report this indicator for 2003/04. Results for the previous 4 years are also shown.
2. For LWUs with more than one treatment works, the weighted average days of malfunction (based on treatment works capacity) was used.
3. For general notes see page 10.

28 Average Annual Residential Consumption – Water Supply

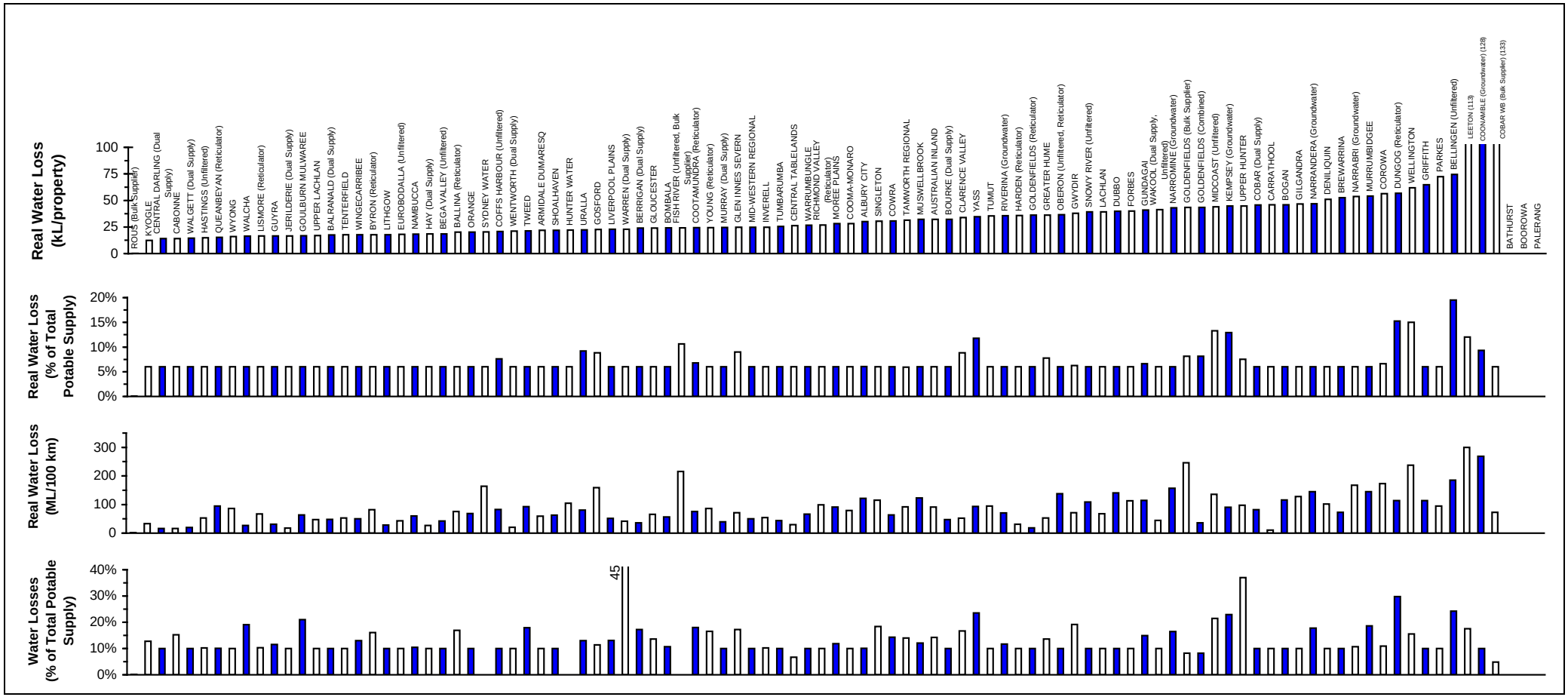


Parameter: $\frac{\text{Annual Residential Consumption (Q12a) x 1000}}{\text{No. of Residential Assessments (Q4a) x No. of Connected Residential Properties per Residential Assessment}}$

Notes:

1. This figure shows ranked values of the 2003/04 average annual residential potable water consumption per connected property for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the annual residential water consumption in 2003/04 for the 26 LWUs shown ***range*** from about ***147 to 696 kL/a*** per connected property. Results for the previous 4 years are also shown.
2. The Statewide median annual residential water consumption is 215 kL/a per connected property.
3. 10 LWUs had a dual water supply to over 50% of their residential customers in June 2004 (ie. with a potable supply for indoor use and a non potable supply for outdoor use). The total annual residential water consumption (ie. potable + non-potable) for those LWUs with a dual water supply in 2003/04 is shown below, together with their potable residential water consumption in brackets. The total and potable consumptions were: Balranald 1,170 (179), Berrigan 490 (152), Bourke 1,580 (340), Central Darling 590 (108), Hay 790 (200), Jerilderie 370 (154), Murray 520 (193), Walgett 700 (146), Warren 480 (199) and Wentworth 1,050 (204).
4. As noted in page 1 of the 2003/04 NSW Water Supply and Sewerage Performance Monitoring Report, 49% of LWUs needed to apply water restrictions in 2003/04. Refer also to Figure 25 on page 46.
5. For general notes see page 10.

29 Real Water Loss (Leakage) – Water Supply



Parameter:

$$\frac{\text{Real Water Losses (Q12k) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Parameter:

$$\frac{\text{Real Water Losses (Q12k) x 100}}{\text{Total Potable Water Supplied (Q12i)}}$$

Parameter:

$$\frac{\text{Real Water Losses (Q12k) x100}}{\text{Length of Mains (Q10c)}}$$

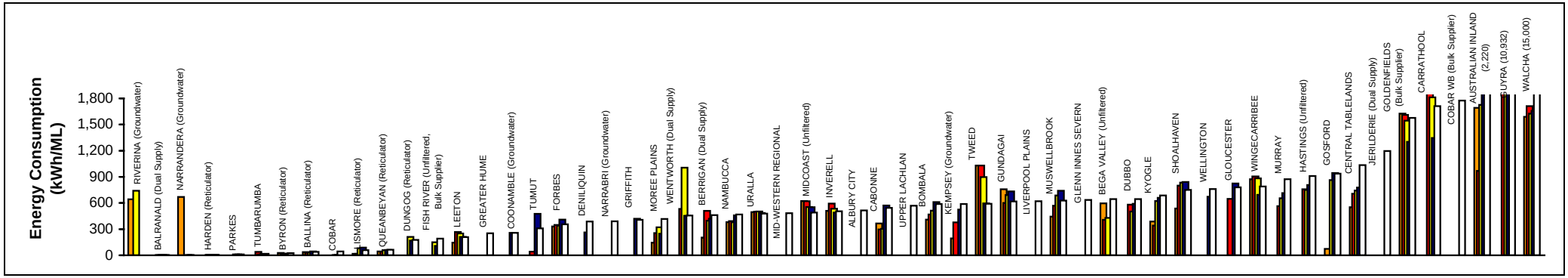
Parameter:

$$\frac{\text{Apparent \& Real Water Losses (Q12h) x 100}}{\text{Total Potable Water Supplied (Q12i)}}$$

Note:

1. For general notes see page 10.

30 Energy Consumption per ML – Water Supply



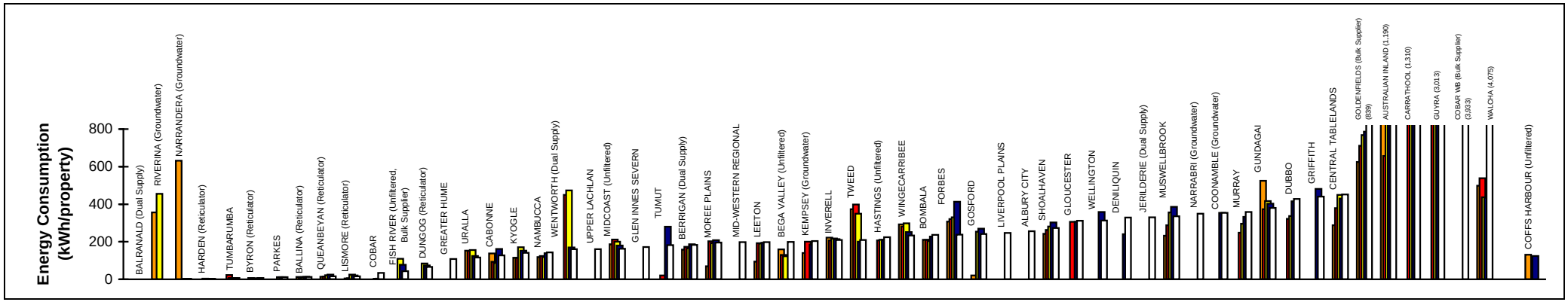
Parameter: $\frac{\text{Total Energy Usage (Q29a)x1000}}{\text{Total Potable Water Consumption (Q12i)}}$

1999/00 2000/01 2001/02 2002/03 2003/04

Notes:

1. This figure shows ranked values of the 2003/04 total energy consumption per ML. The energy consumption per ML for the 57 Local Water Utilities (LWUs) shown ***range*** from about 1 to 15,000 kWh per ML. Results for the previous 4 years are also shown.
2. For general notes see page 10.

31 Energy Consumption per Property – Water Supply



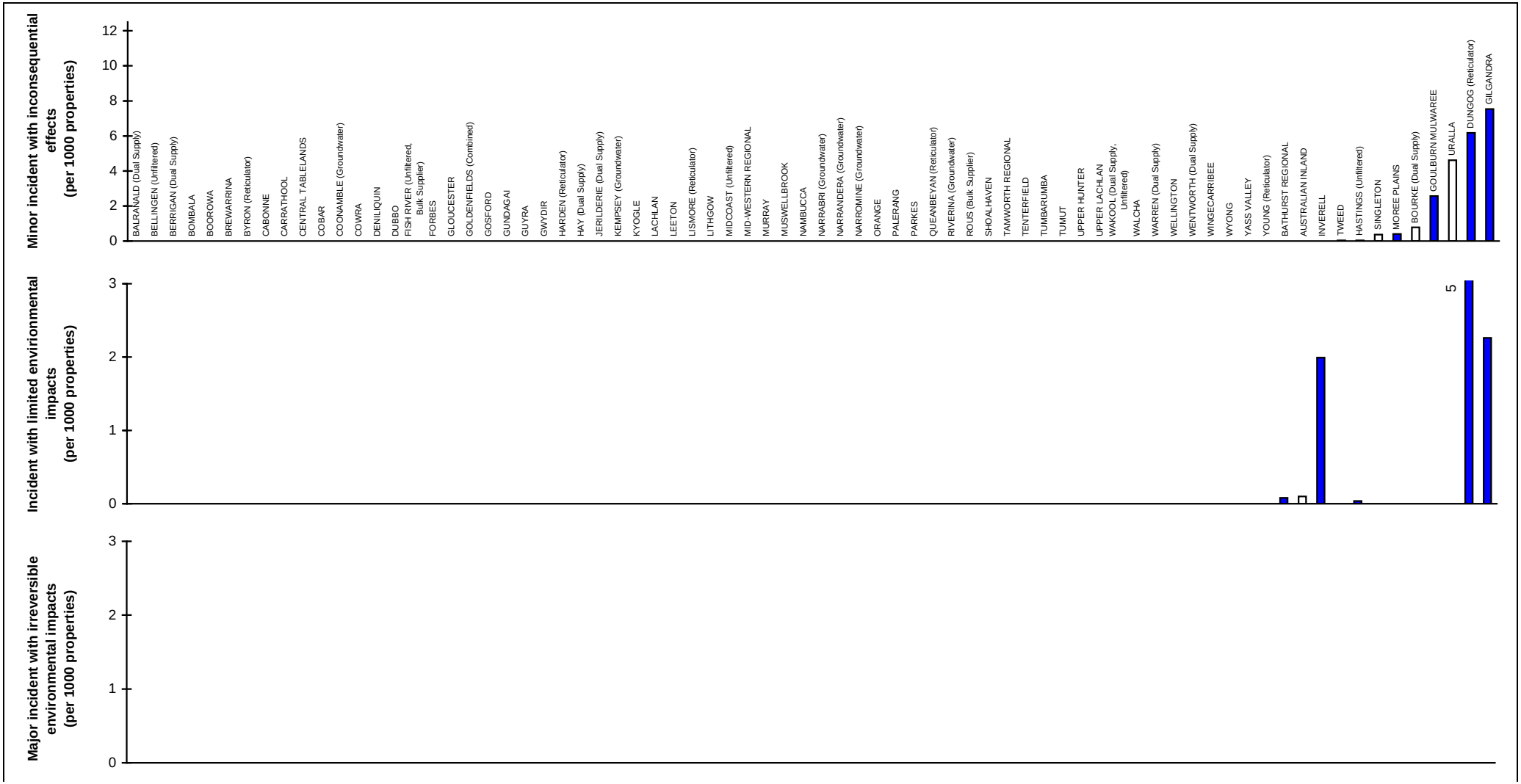
Parameter: $\frac{\text{Total Energy Usage (Q29) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

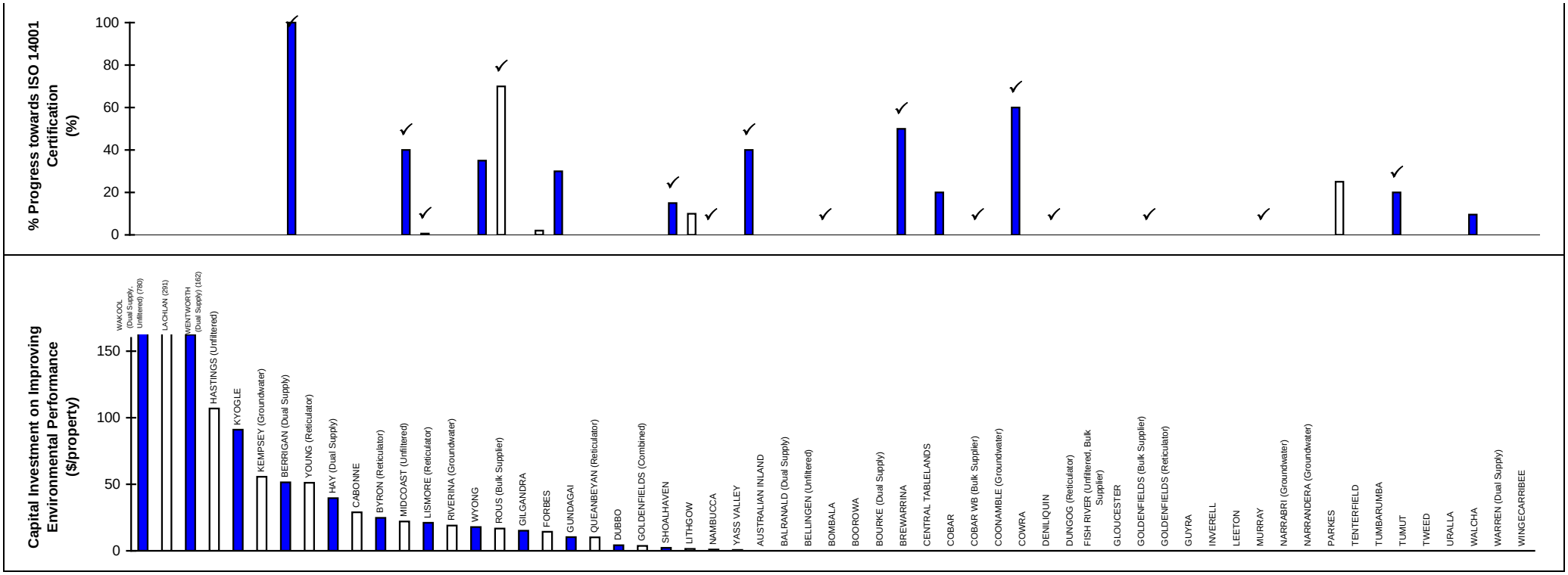
1999/00 2000/01 2001/02 2002/03 2003/04

Notes:

1. This figure shows ranked values of the 2003/04 total energy consumption per connected property. The energy usage per connected property for the 57 Local Water Utility (LWU)s shown ranges from about 0.5 to 4,075 kWh per connected property. Results for the previous 4 years are also shown.
2. For general notes see page 10.

32 Environmental Incidents, Management Systems, Capital Investment – Water Supply





Parameter: $\frac{\text{Total Number of Minor Incident with Inconsequential Effects (TBL Q1a)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Total Number of Incident with Limited Environmental Impacts (TBL Q1b)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Total Number of Incident with Irreversible Environmental Impacts (TBL Q1d)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: % Progress Towards ISO 14001 Certification (Q2c)

Parameter: $\frac{\text{Capital Expenditure on Improving Environmental Performance ($) (TBL Q3a)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Note:

1. For general notes see page 10.

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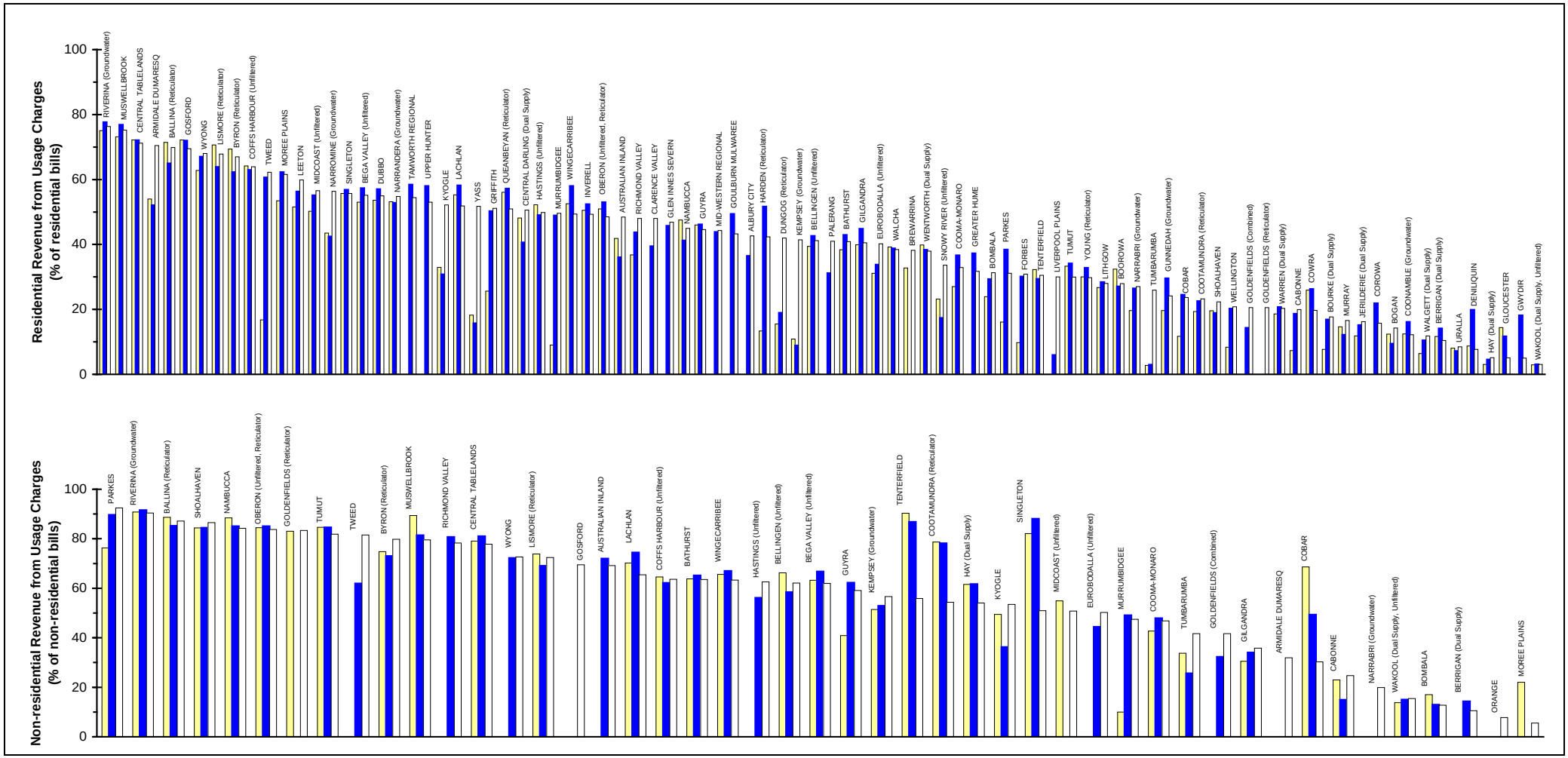
33 Water Revenue from Usage Charges



Parameter:

$$\frac{\text{Revenue from Residential User Charges (W6b)] x 100}}{\text{Revenue from Residential Access Charges (W6a) + Revenue from Residential User Charges (W6b)}}$$

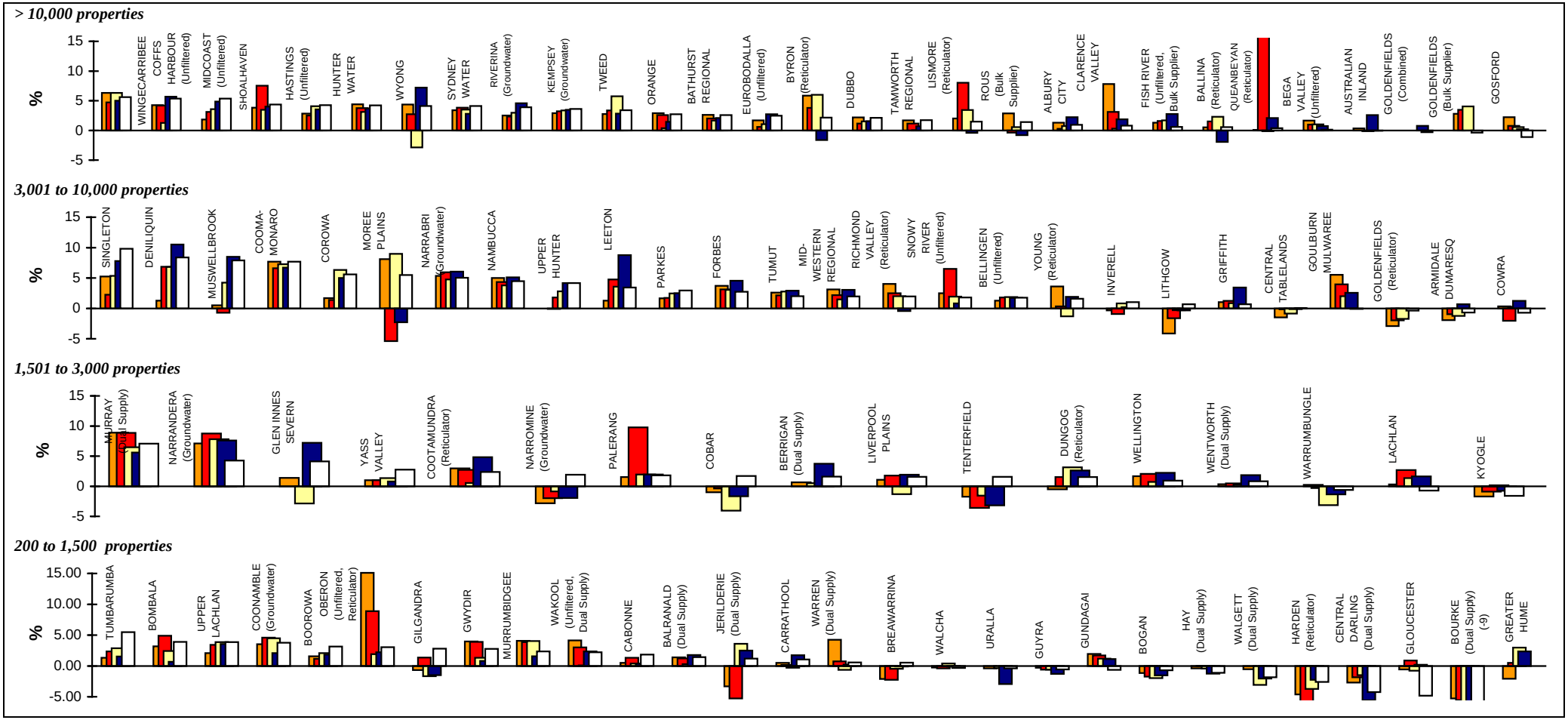
Parameter:

$$\frac{\text{Revenue from Non-residential User Charges (W7b)] x 100}}{\text{Revenue from Non-residential Access Charges (W7a) + Revenue from Non-residential User Charges (W7b)}}$$

Notes:

1. Many LWUs did not separately report their usage and access charges for each of residential and non-residential customers in Special Schedule No.3 of their annual financial statements. All LWUs should do so in the future.
2. The Statewide median residential revenue from water usage charges was 55%.
3. For general notes see page 10.

34 Economic Real Rate of Return – Water Supply

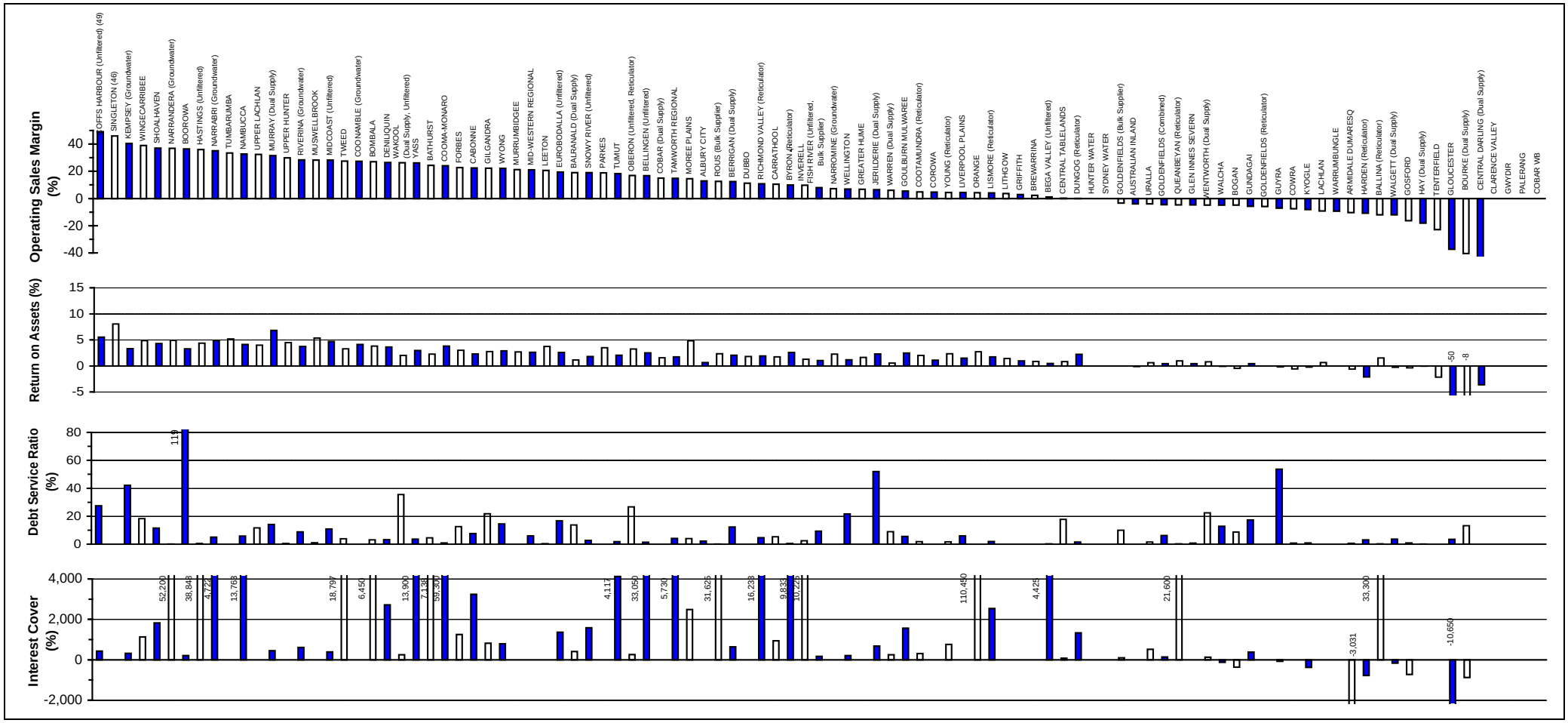


Parameter: [Operating Result (W15a) + Interest Expense (W4a) - Interest Income (W9) - Grants for Acquisition of Assets (W11a)] x 100 / Written Down Replacement Cost of Property, Plant & Equipment (W47)

Notes:

1. This figure shows ranked values of the 2003/04 water supply economic real rate of return (ERRR) for each Local Water utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the real rate of return for the 26 LWUs shown ***ranges*** from about ***9.8% to –0.7%***. Results for the previous 4 years are also shown.
2. The Statewide median water supply ERRR is 2.7%.
3. The ERRR was not reported for Sydney and Hunter Water Corporations from 2001/02 to 2003/04. The reported values for return on assets have been shown for these years.
4. The ERRR includes developer provided assets and capital contributions from other LWUs.
5. For general notes see page 10.

35 Operating Sales Margin, Return on Assets, Debt Service Ratio, Interest Cover – Water Supply



Parameter: $\frac{\text{[Operating Result (W15) + Interest Expenses (W4a) – Interest Income (W9) - Grants for Capital Works (W11a) – Developer Provided Assets (W12b)] x 100}}{\text{Total Revenue (W13) – Grants for Capital Works (W11a) – Developer Provided Assets (W12b) – Interest Income (W9)}}$

Parameter: $\frac{\text{[Operating Result (W15) + Interest Expenses (W4a) – Grants for Capital Works (W11a)] x 100}}{\text{Total Assets (W35)}}$

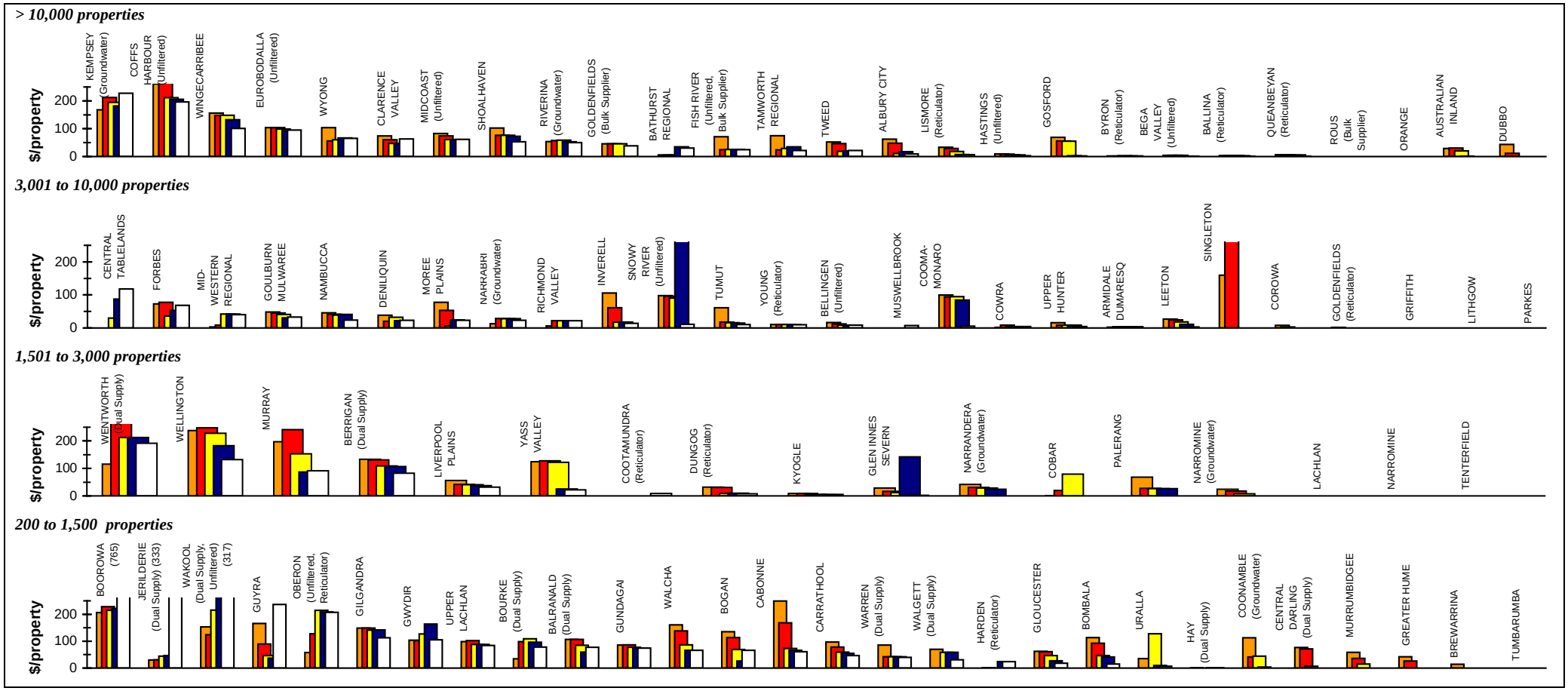
Parameter: $\frac{\text{[Interest Expenses (W4a) + Payment of Debt (W17)] x 100}}{\text{Total Revenue (W13) – Grants for Capital Works (W11a) – Developer Provided Assets (W12b)}}$

Parameter: $\frac{\text{[Operating Result (W15) + Interest Expenses (W4a) - Grants for Capital Works (W11a)] x 100}}{\text{Interest Expenses (W4a)}}$

Note:

1. For general notes see page 10.

36 Loan Payment – Water Supply



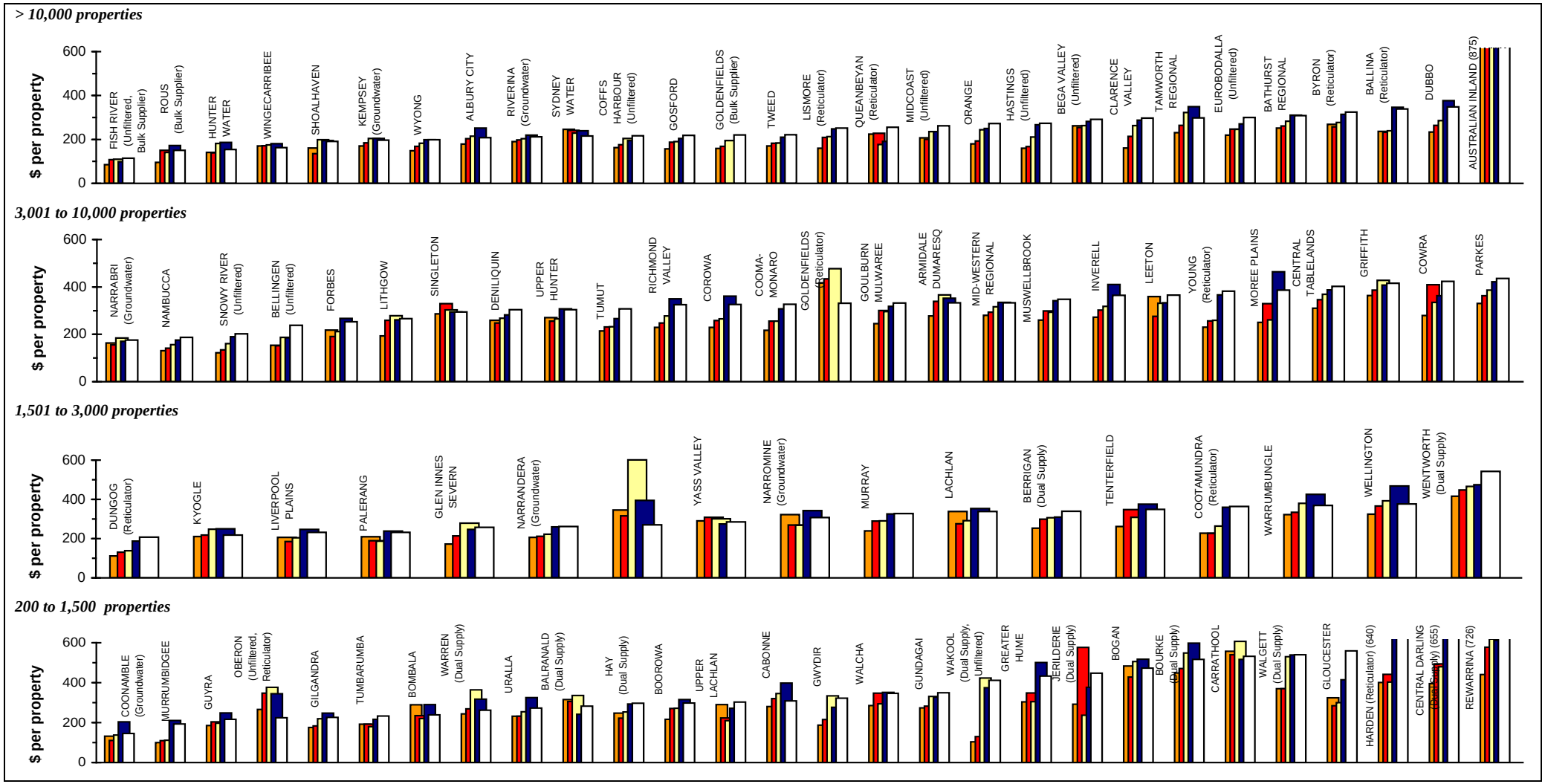
Parameter:

$$\frac{\text{Payment of Debt (W17) + Interest Expenses (W4a)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows the 2003/04 ranked values of the water supply loan payment for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the water supply loan payments for the 26 LWUs shown ***range*** from about $118 to $0 per connected property. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median water supply loan payment is $22 per connected property.
3. For general notes see page 10.

37 Operating Cost (OMA) per Property – Water Supply



Parameter:

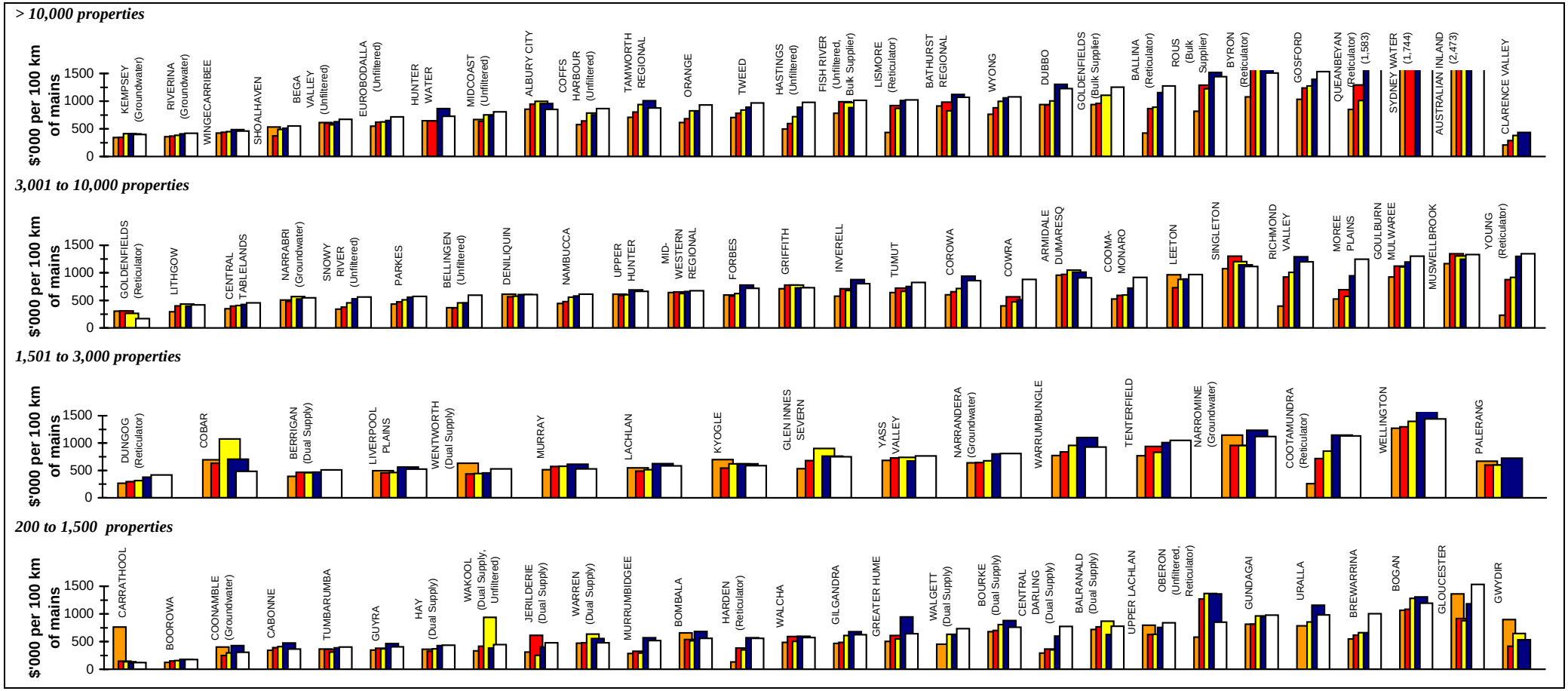
$$\frac{\text{Management Expenses (W1) + Total Operations Expenses (W2) - Purchase of Water + Bulk Supplier's OMA}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

1999/00 2000/01 2001/02 2002/03 2003/04

Notes:

1. This figure shows the 2003/04 ranked values of the water supply operating cost (OMA - operation, maintenance and administration) per property for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the operating costs for the 26 LWUs shown ***range*** from about ***$176 to $436*** per connected property. The LWU on the right did not report Operating Cost per property for 2003/04. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median operating cost per connected property is $255.
3. For general notes see page 10.

38 Operating Cost (OMA) per 100 km of Main – Water Supply

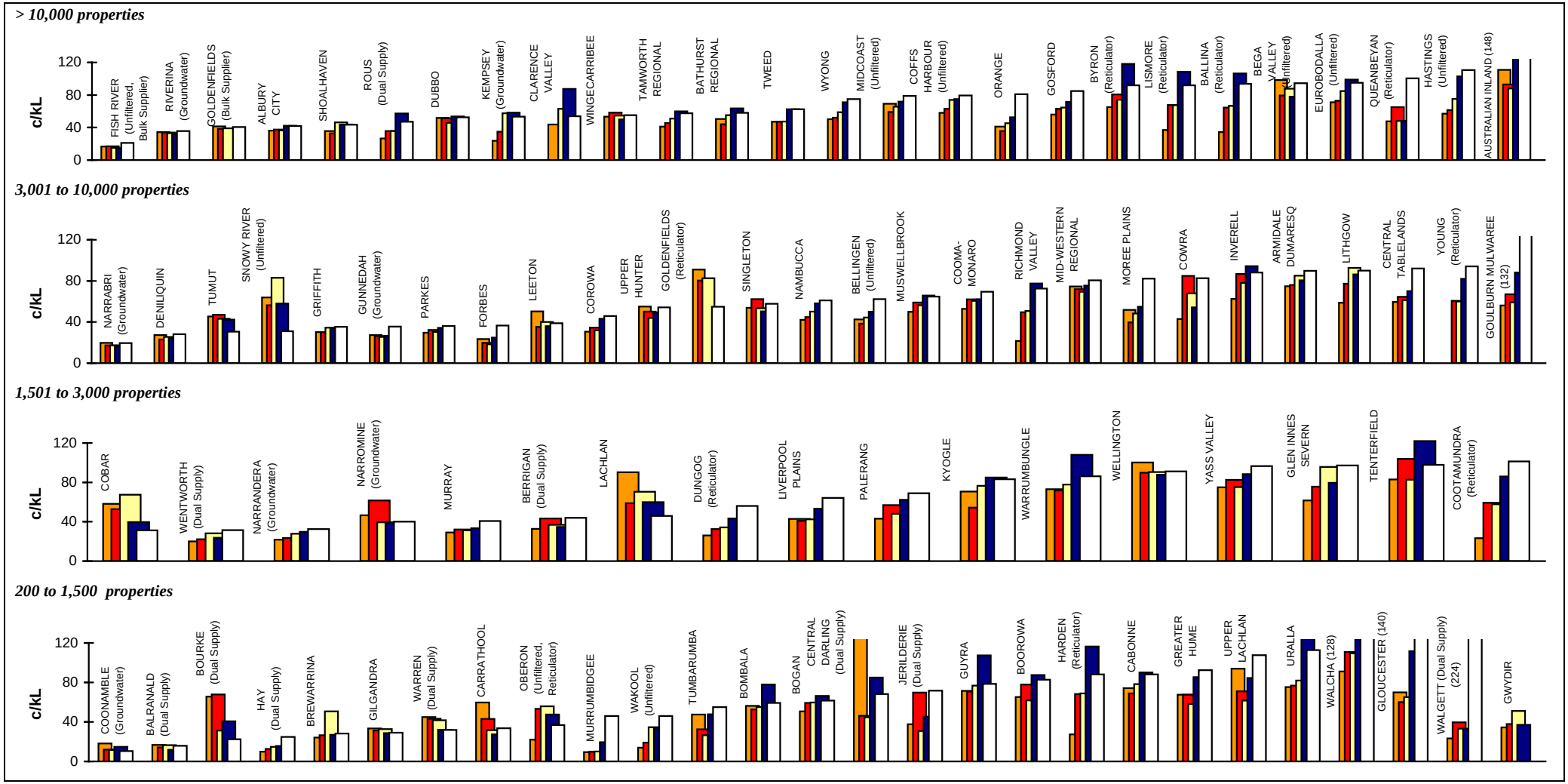


Parameter: $\frac{\text{Management Expenses (W1) + Total Operations Expenses (W2) - Purchase of Water (W2o)}}{\text{Length of Distribution Trunk Mains (Q10c) x 10}}$

Notes:

1. This figure shows the 2003/04 ranked values of the water supply operating cost (OMA - operation, maintenance and administration) per 100 km of main for each Local Water utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the operating costs for the 26 LWUs shown ***range*** from about $396,000 to $2,472,000 per 100 km of main. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median operating cost per 100 km of main is $880,000.
3. For general notes see page 10.

39 Operating Cost (OMA) per kL – Water Supply



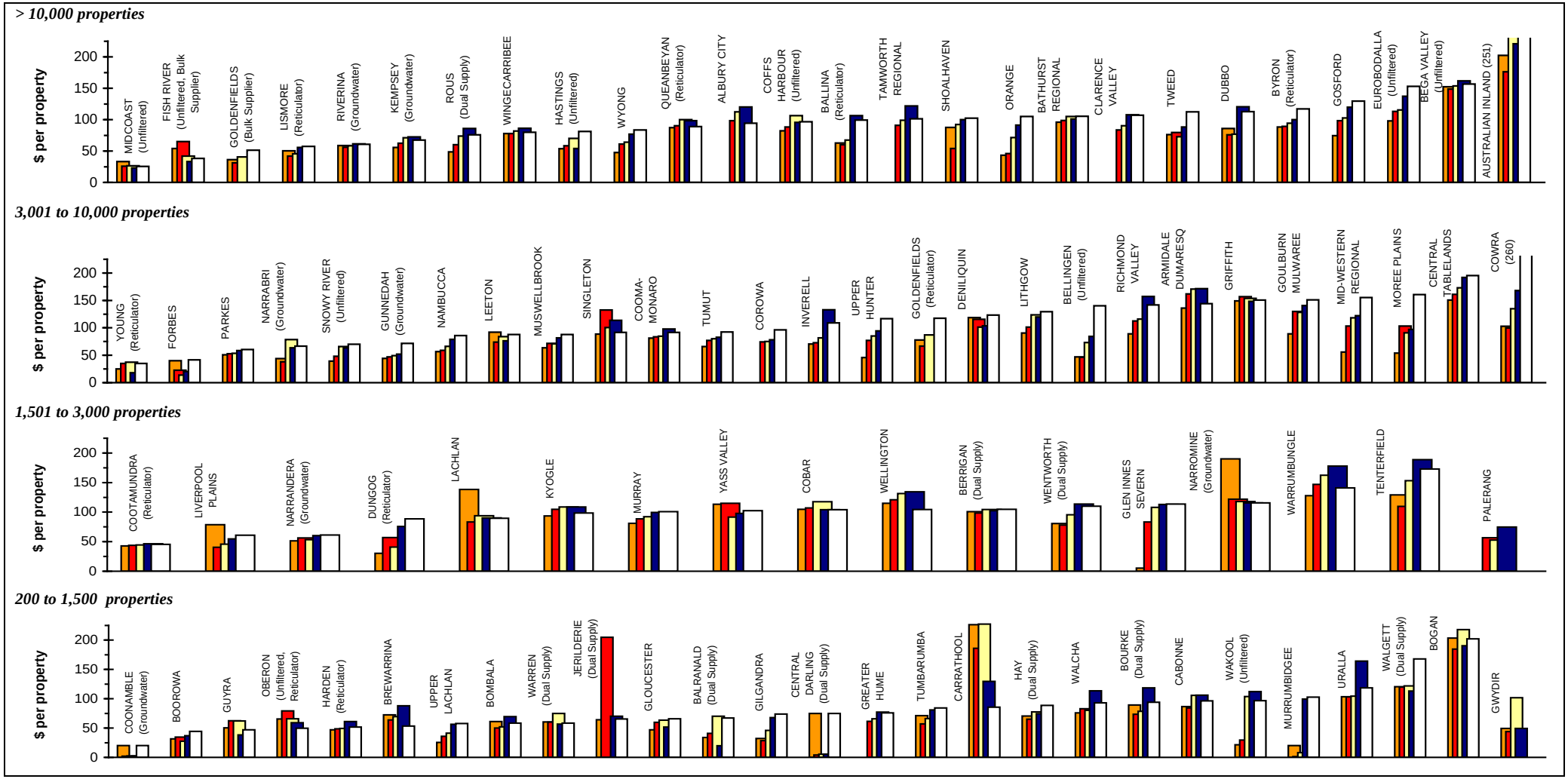
Parameter: $\frac{\text{Management Expenses (W1) + Total Operations Expenses (W2) - Purchase of Water (W2o)}}{\text{Total Potable Water Supplied (Q12i)}}$

1999/00 2000/01 2001/02 2002/03 2003/04

Notes:

1. This figure shows the 2003/04 ranked values of the water supply operating cost (OMA - operation, maintenance and administration) per kL for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the operating costs for the 27 LWUs shown ***range*** from about ***20 to 132*** c/kL. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median operating cost is 73 c/kL.
3. For general notes see page 10.

40 Management Cost per property – Water Supply



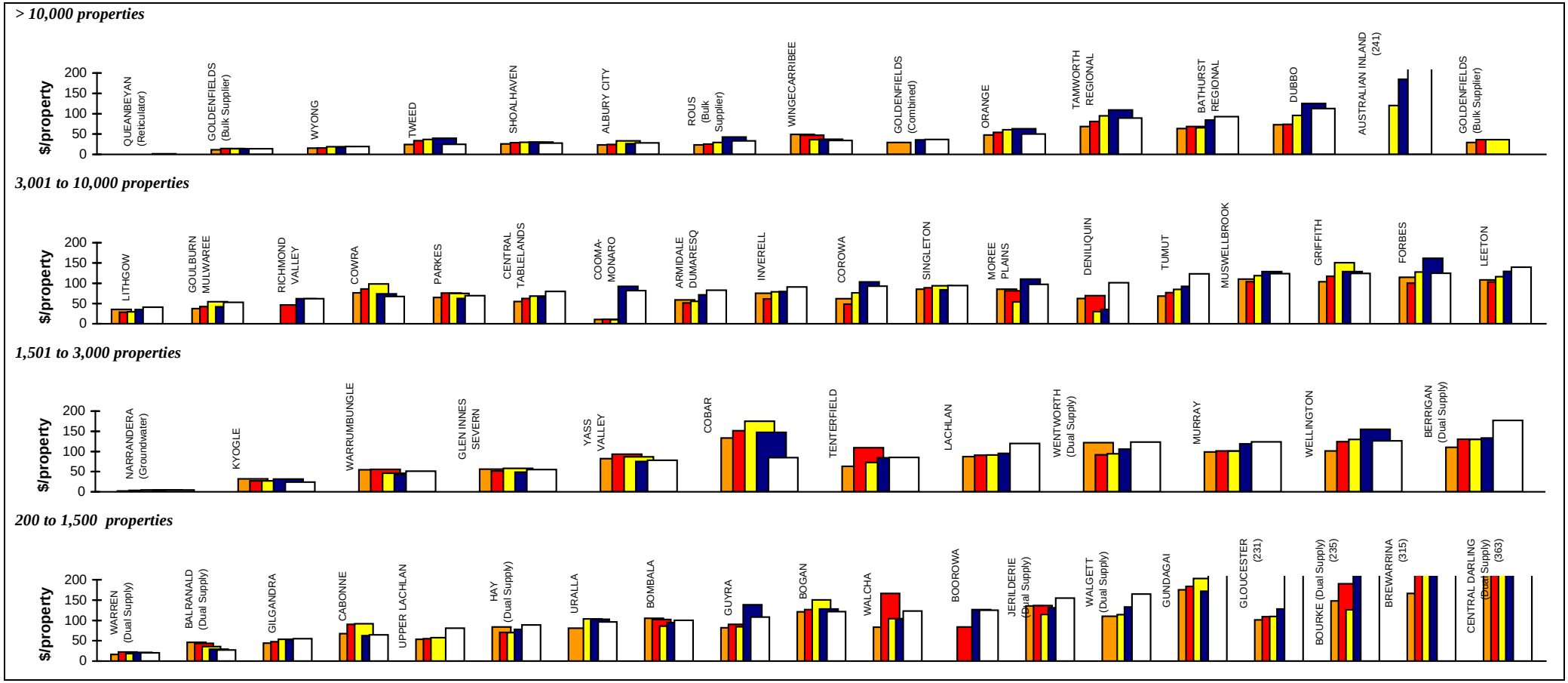
Parameter:

$$\frac{\text{Administration Cost (W1a) + Engineering Cost (W1b)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows the 2003/04 ranked values of the water supply management cost per property for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the management costs for the 27 LWUs shown ***range*** from about ***$35 to $260 per*** connected property. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median management cost is $100 per connected property.
3. For general notes see page 10.

41 Treatment Cost – Water Supply



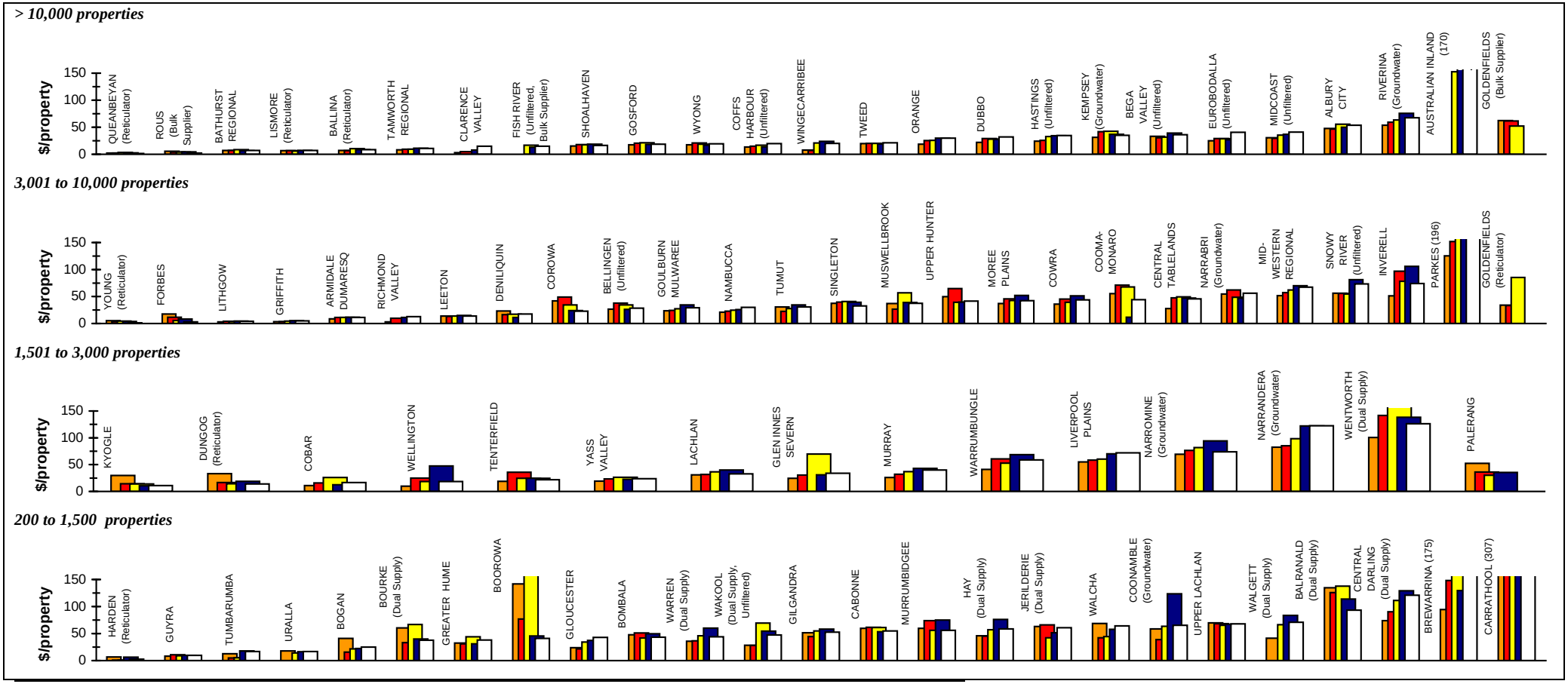
Parameter:

$$\frac{\text{Treatment Operation Expenses (W2j) + Treatment Chemical Cost (W2k) + Treatment Maintenance Expenses (W2l)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2003/04 water treatment cost for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the treatment cost for the 20 LWUs shown ***range*** from about $0 to $140 per connected property. The LWU on the right did not report this indicator for 2003/04. Results for the previous 4 years are also shown in Jan 2004$.
2. Only LWUs with a water treatment works involving at least filtration and disinfection for over 50% of their supply have been considered.
3. The Statewide median water treatment cost is $27 per connected property.
4. For general notes see page 10.

42 Pumping Cost – Water Supply



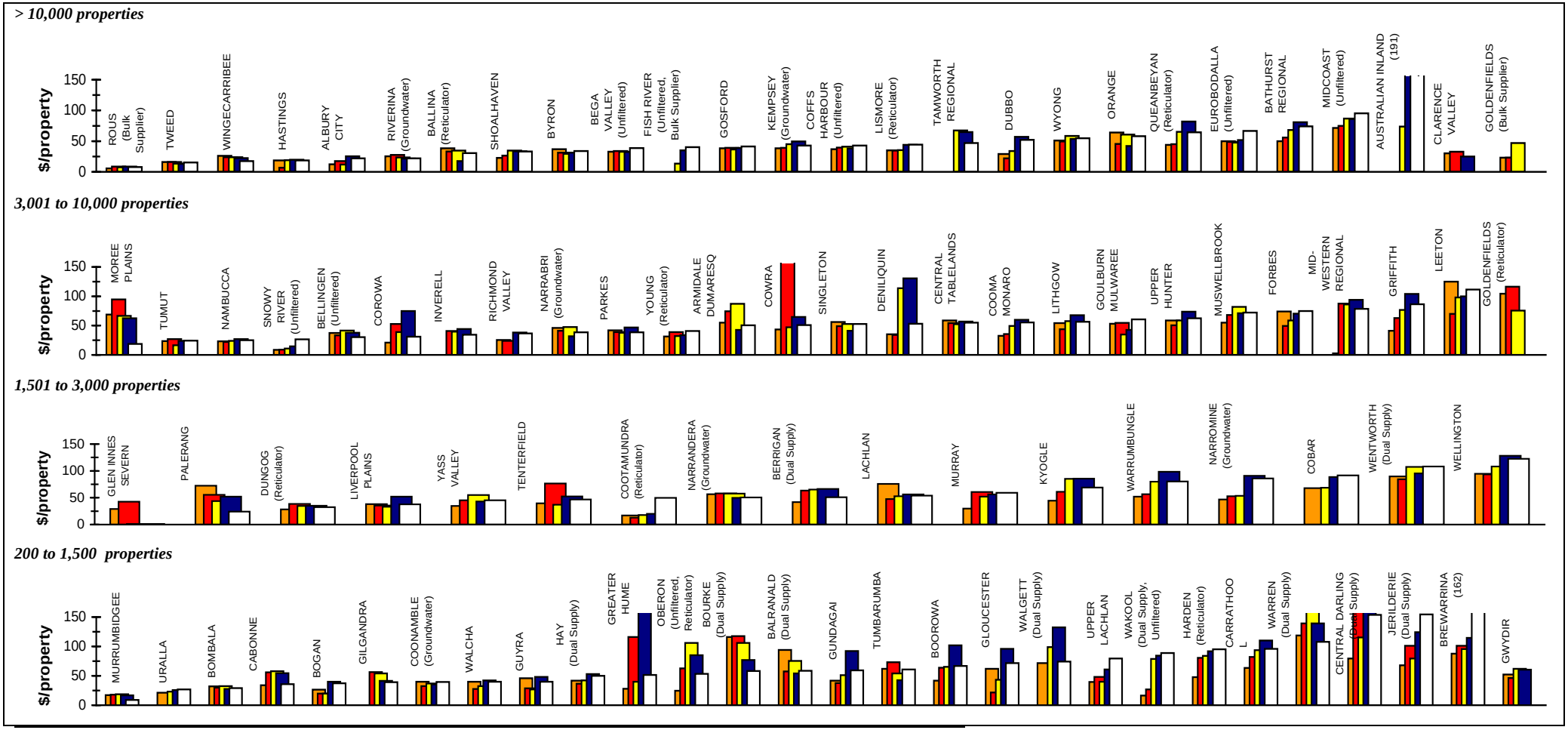
Parameter: [Pumping Stations Operation Expenses (W2g) + Pumping Stations Energy Cost (W2h) + Pumping Stations Maintenance Costs (W2i)] / [No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment

1999/00 2000/01 2001/02 2002/03 2003/04

Notes:

1. This figure shows ranked values of the 2003/04 water pumping cost for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the water pumping costs for the 26 LWUs shown ***range*** from about $0 to $296 per connected property. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median water pumping cost (including energy costs) is $20 per connected property.
3. For general notes see page 10.

43 Water Main Cost – Water Supply



Parameter:

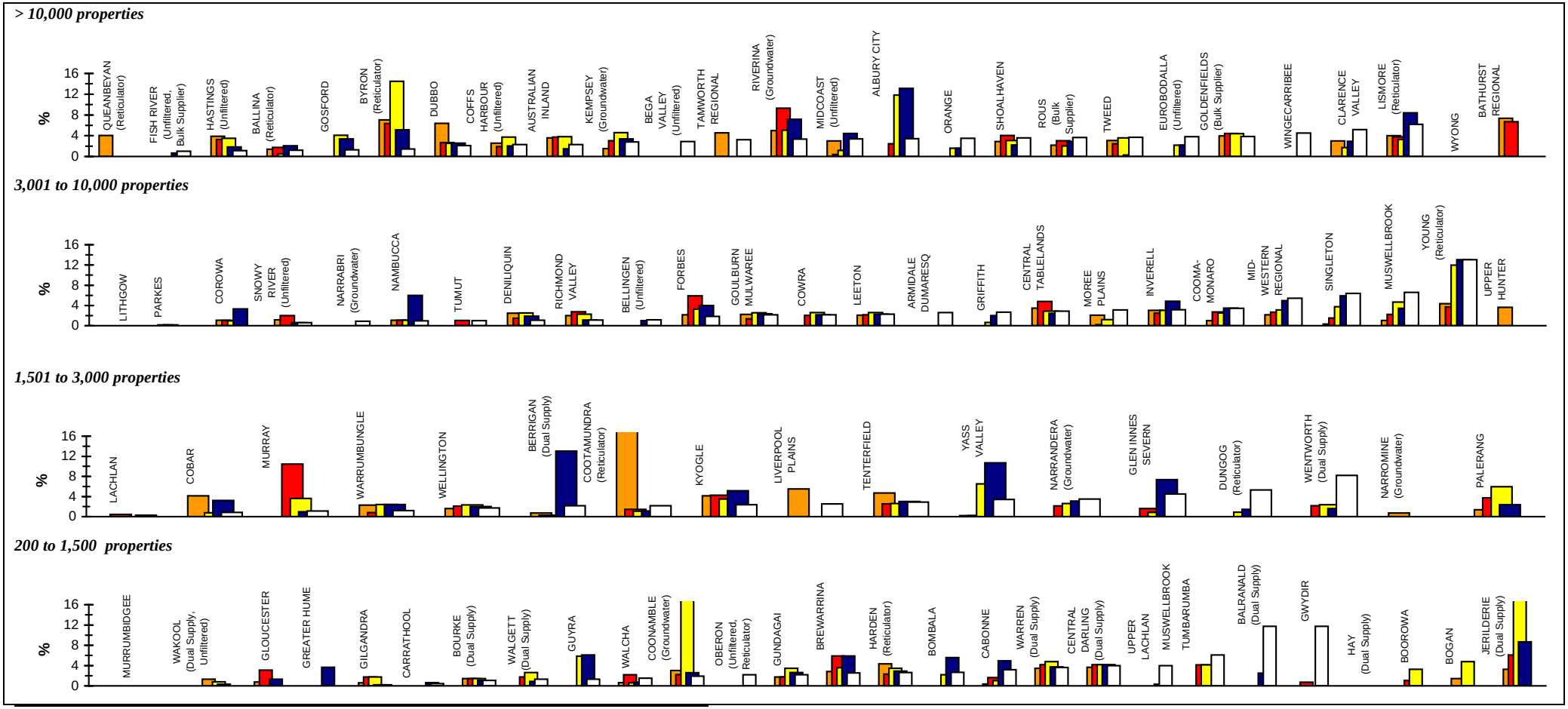
$$\frac{\text{[Water Main Operation Expenses (W2c) + Water Main Maintenance Costs (W2d)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

1999/00 2000/01 2001/02 2002/03 2003/04

Notes:

1. This figure shows ranked values of the 2003/04 water main cost for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the water main costs for the 26 LWUs shown ***range*** from about $0 to $111 per connected property. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median water main cost is $43 per connected property.
3. For general notes see page 10.

44 Total Days Lost – Water Supply



Parameter: $\frac{\text{Total Number of Days Lost for All Reasons in Year (Q31a) x 100}}{\text{Equivalent full time employees (Q30a) x Available number of working days in year (ie. 230)}}$

1999/00 2000/01 2001/02 2002/03 2003/04

Notes:

1. This figure shows ranked values of the 2003/04 total days lost for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the total lost for the 26 LWUs shown ***range*** from about nil to 13%. The 2 LWUs on the right did not report this indicator for 2003/04. Results for the previous 4 years are also shown.
2. The Statewide median days lost is 2.5%.
3. For general notes see page 10.

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10 SEWERAGE FIGURES

This section contains the following Figures for sewerage:

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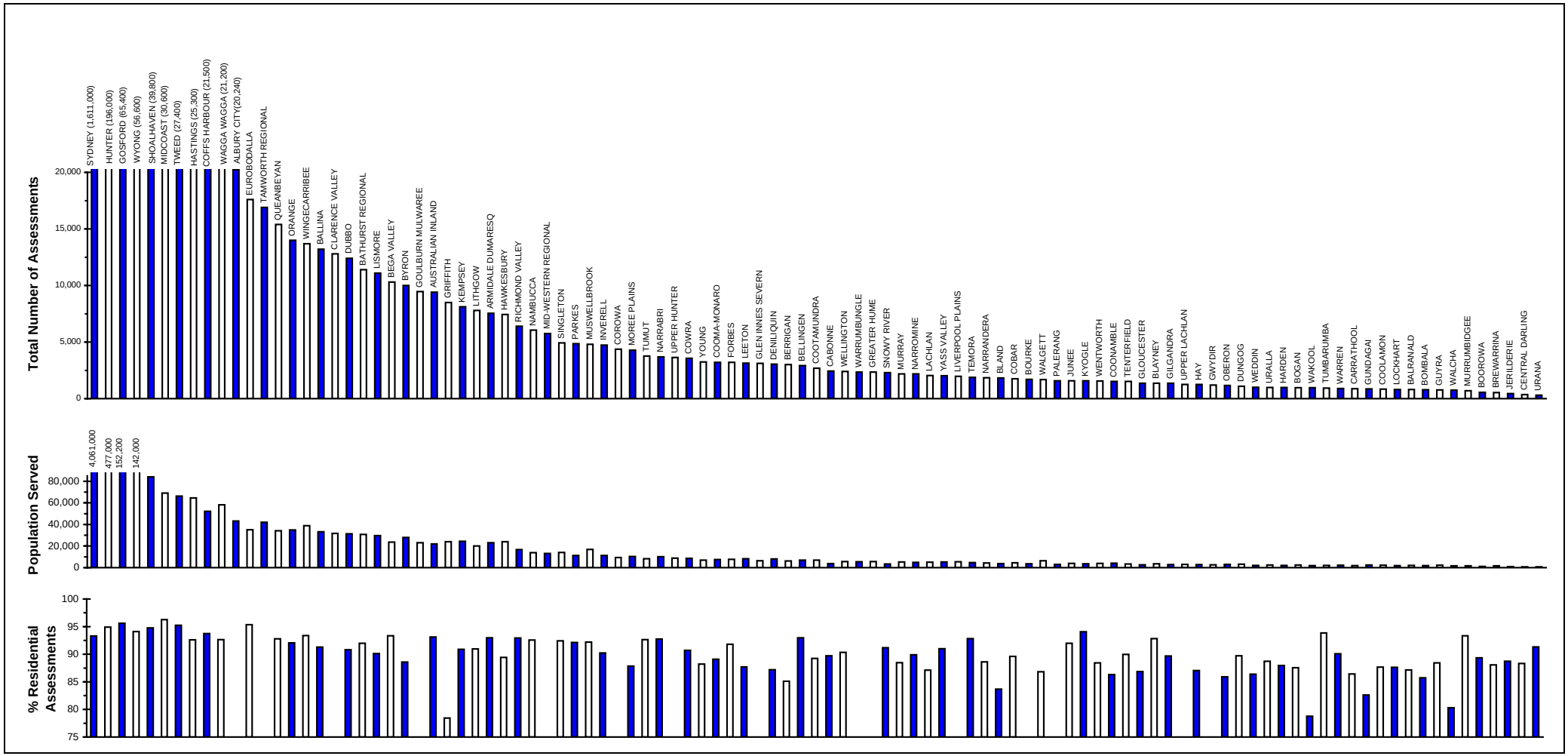
45 Population, Assessment Served – Sewerage



Parameter: No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)

Parameter: Population Served (Q1a)

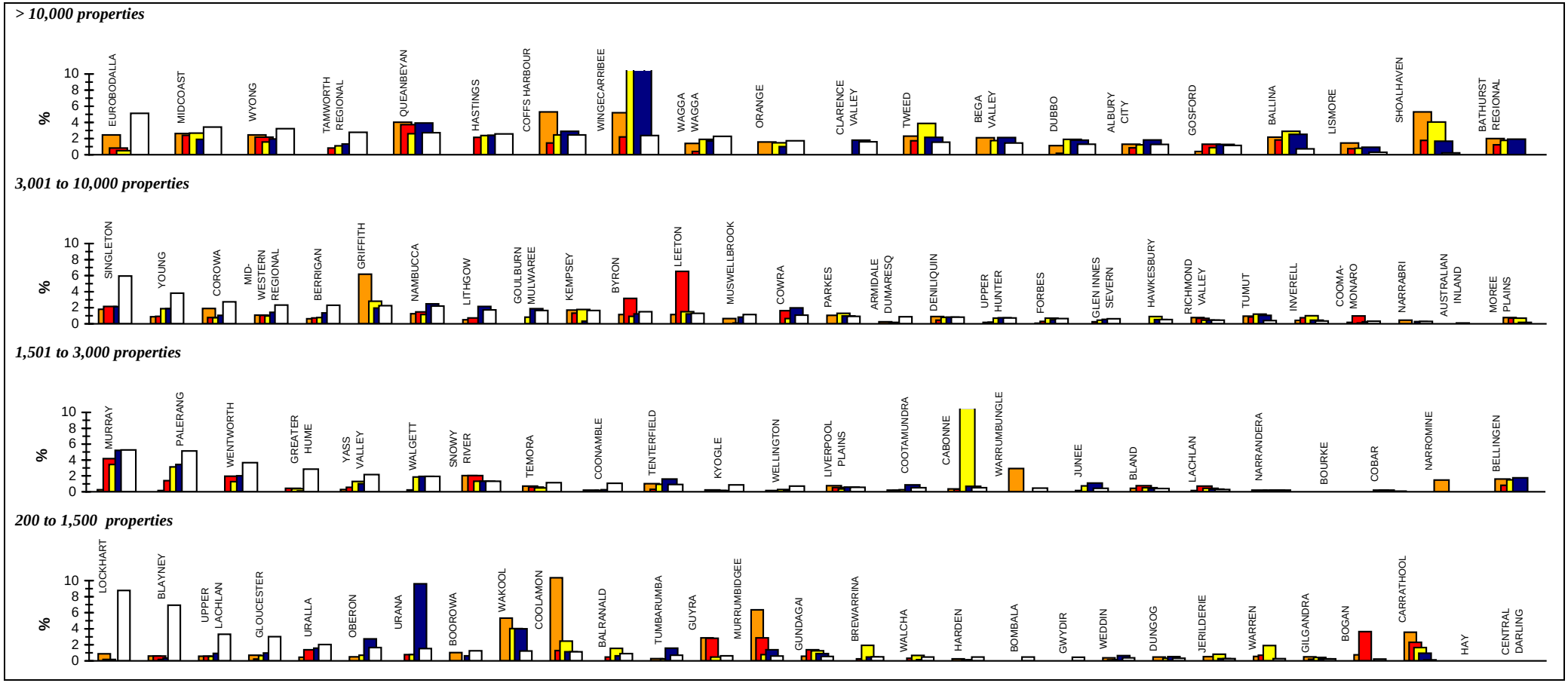
Parameter:

$$\frac{\text{No. of Residential Assessments (Q4a) x 100}}{\text{No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)}}$$

Notes:

1. For general notes see page 10.

46 New Residential Dwellings Connected – Sewerage



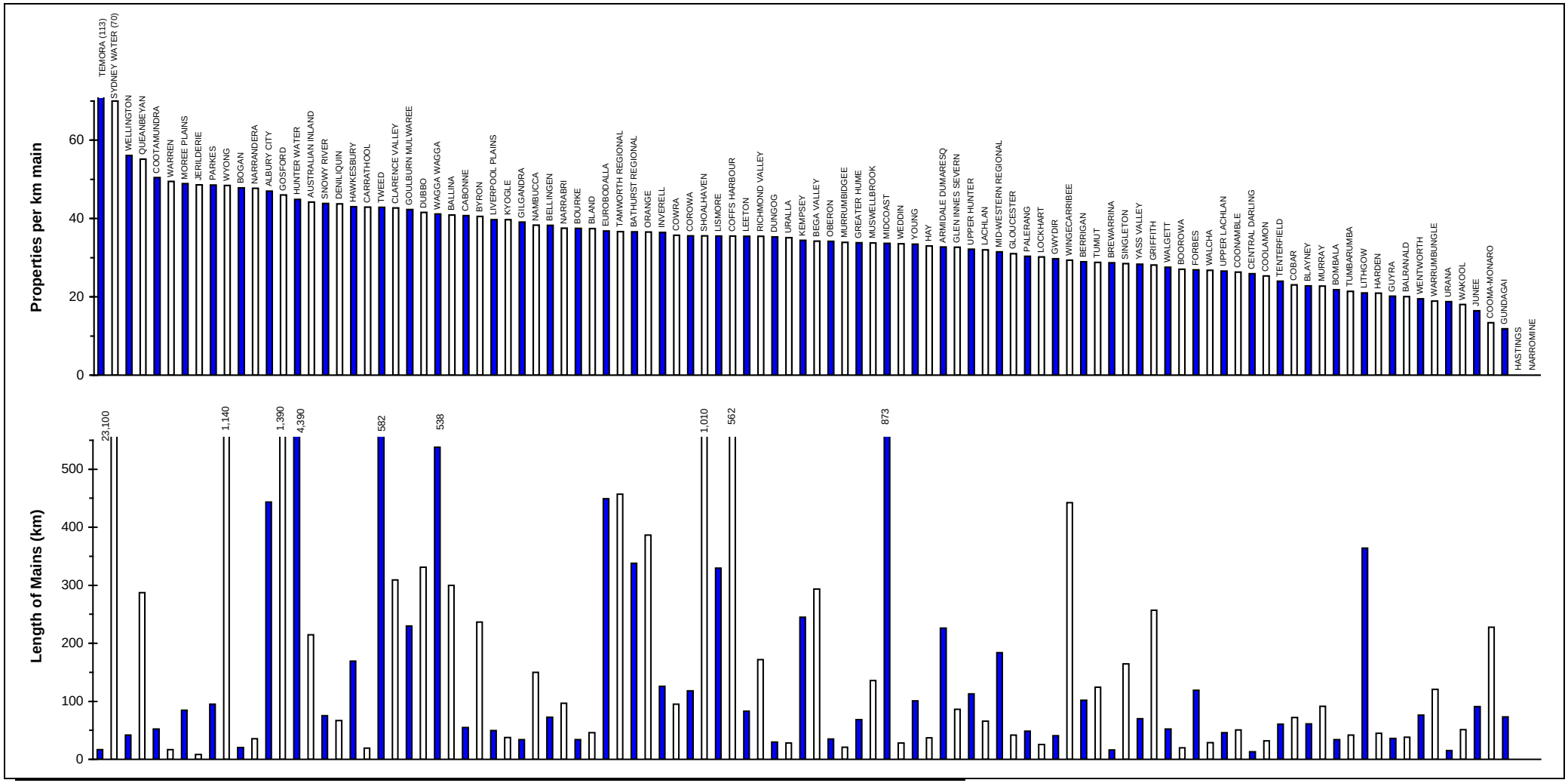
Parameter:

$$\frac{\text{No. of New Residential Dwellings Connected in Year (Q5)} \times 100}{\text{No. of Residential Assessments (Q4a)} \times \text{No. of Connected Residential Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2003/04 number of new residential dwellings connected to sewerage for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the total number of new residential dwellings connected for the 28 LWUs shown ***range*** from about 6% to 0.3%. The LWU on the right did not report their 2003/04 new residential properties connected. Results for the previous 4 years are also shown.
2. The Statewide median new residential dwellings connected to sewerage is 1.6% of the existing number of connected residential properties.
3. For general notes see page 10.

47 Properties Served per km of Main, Length of Mains – Sewerage



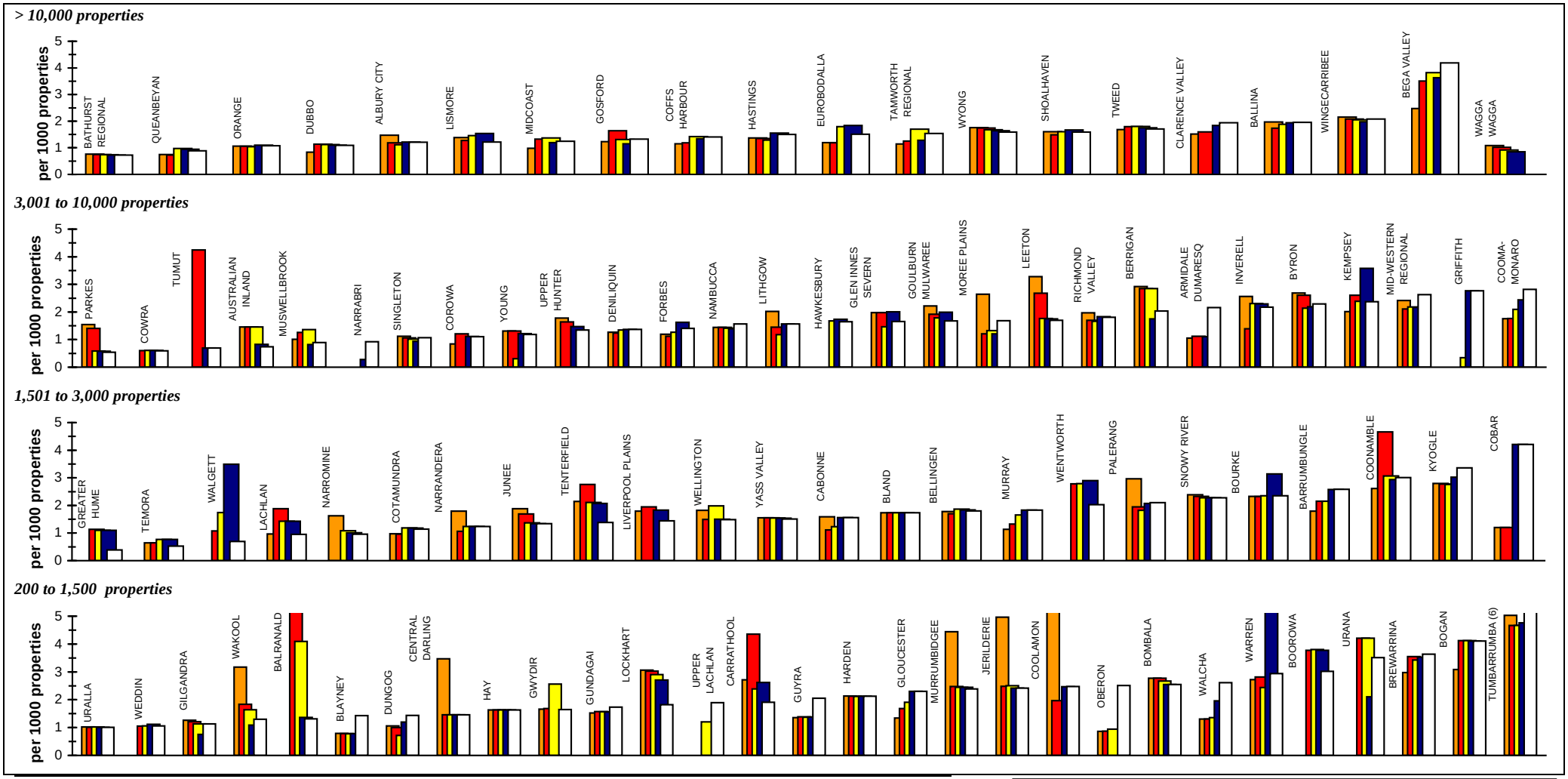
Parameter: $\frac{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Properties (Q4b)] x No. of Connected Properties per Assessment}}{\text{Length of Reticulation/Gravity Mains (Q10a) + Length of Rising Mains (Q10b)}}$

Parameter: Length of Reticulation/Gravity Mains (Q10a) + Length of Rising Mains (Q10b)

Notes:

1. For general notes see page 10.

48 Employees – Sewerage



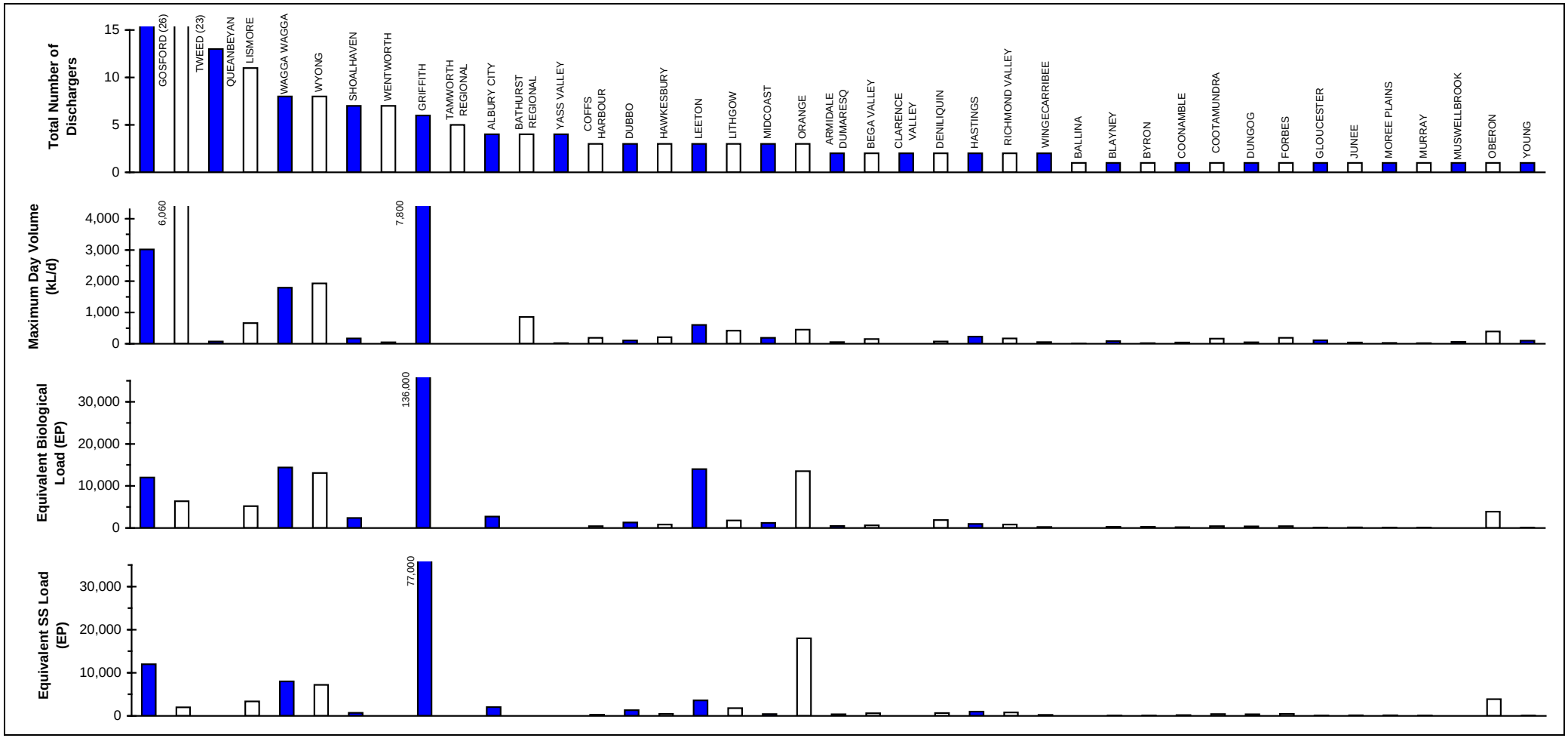
Parameter:

$$\frac{\text{Equivalent Full-time Employees (Q29a) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the sewerage employees in 2003/04 for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the sewerage employees for the 28 LWUs shown ***range*** from about 0.5 to 2.8 per 1000 connected properties. Results for the previous 4 years are also shown.
2. The Statewide median number of sewerage employees is 1.5 per 1000 connected properties.
3. For general notes see page 10.

49 Trade Waste – Sewerage

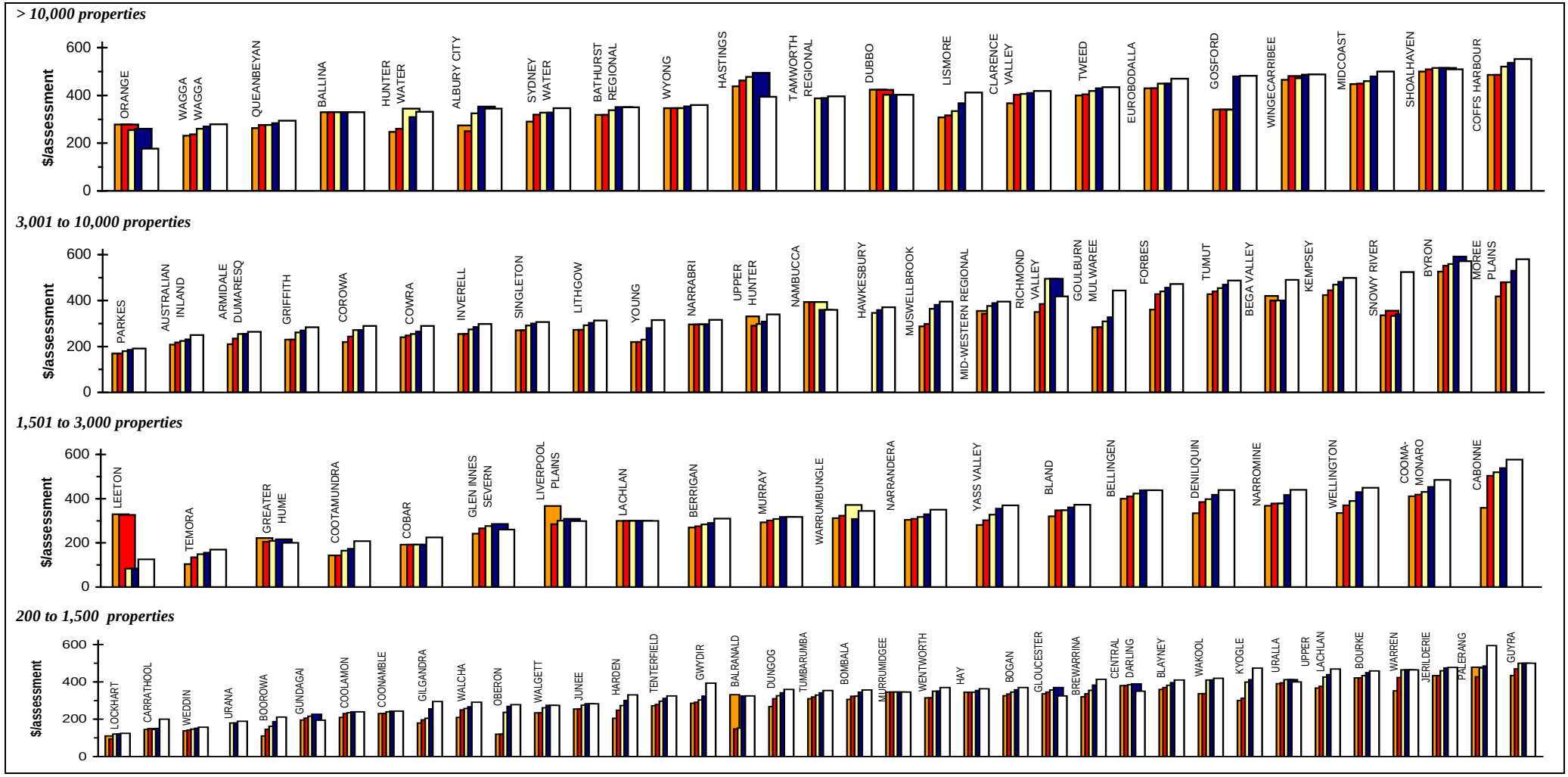


Parameters: Number of Large Dischargers (Q12a)
Maximum Day Volume (Q12Ba)
Equivalent Biological Load (Q12Bb)
Equivalent Suspended Solids Load (Q12Bc)

Notes:

1. A total of 41 Local Water Utilities (LWUs) have 175 large trade waste dischargers (>20 kL/d).
2. All LWUs should levy appropriate non-residential sewerage charges and trade waste fees and charges for all liquid trade waste dischargers into the LWU's sewerage system, in accordance with the Liquid Trade Waste Management Guidelines, 2005. DEUS has also developed sewerage and trade waste pricing software to assist LWUs.
3. For general notes see page 10.

50 Typical Residential Bill – Sewerage

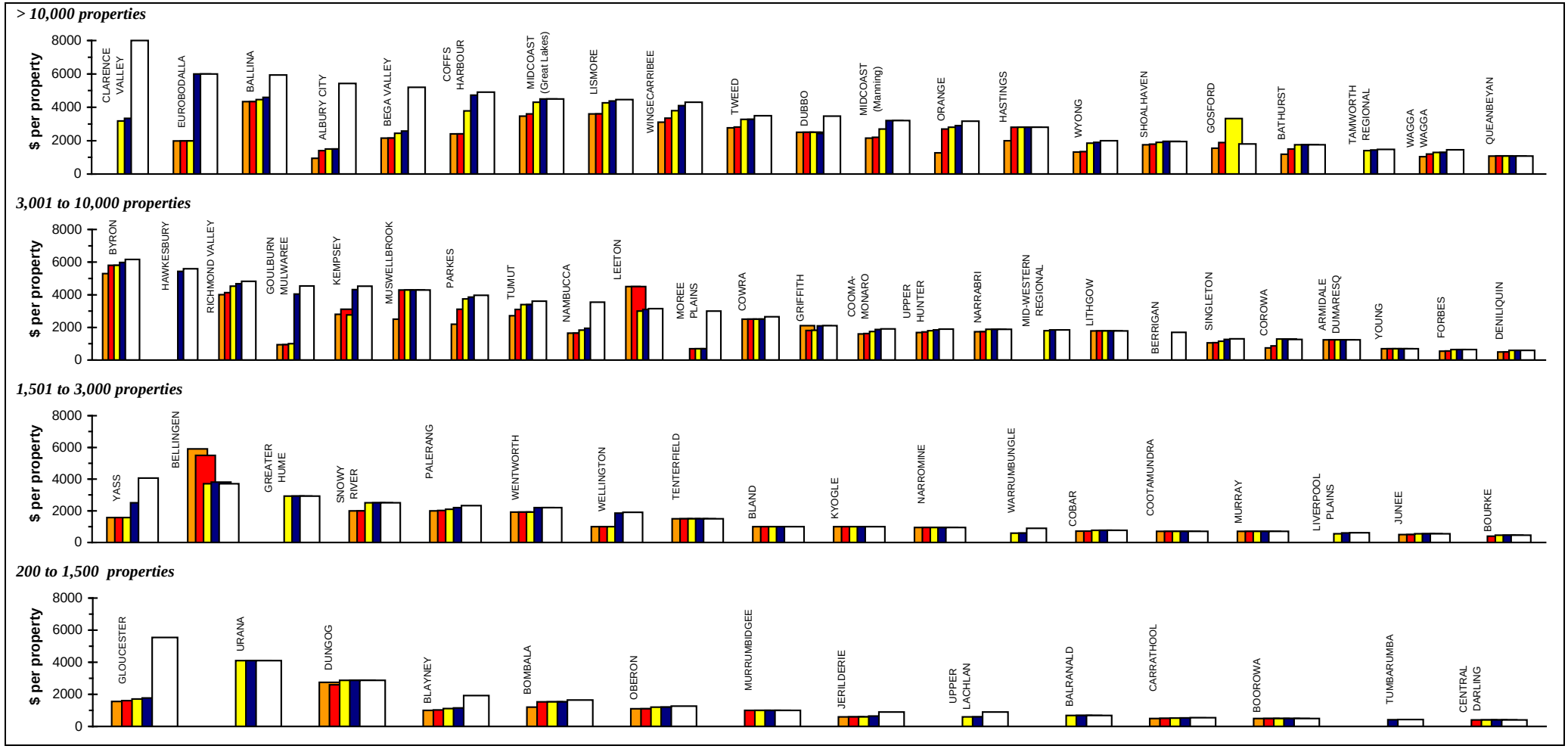


Parameter: Residential Rates and Service Availability Charges / No. of Residential Assessments

Notes:

1. This figure shows ranked values of the 2004/05 average residential bill for sewerage for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the sewerage bills for the 25 LWUs shown ***range*** from about ***$191 to $580*** per assessment. Results for the previous 4 years are also shown in Jan 2005$.
2. The 2004/05 Statewide median average residential bill for sewerage is $375 per assessment.
3. For general notes see page 10.

51 Typical Developer Charge – Sewerage

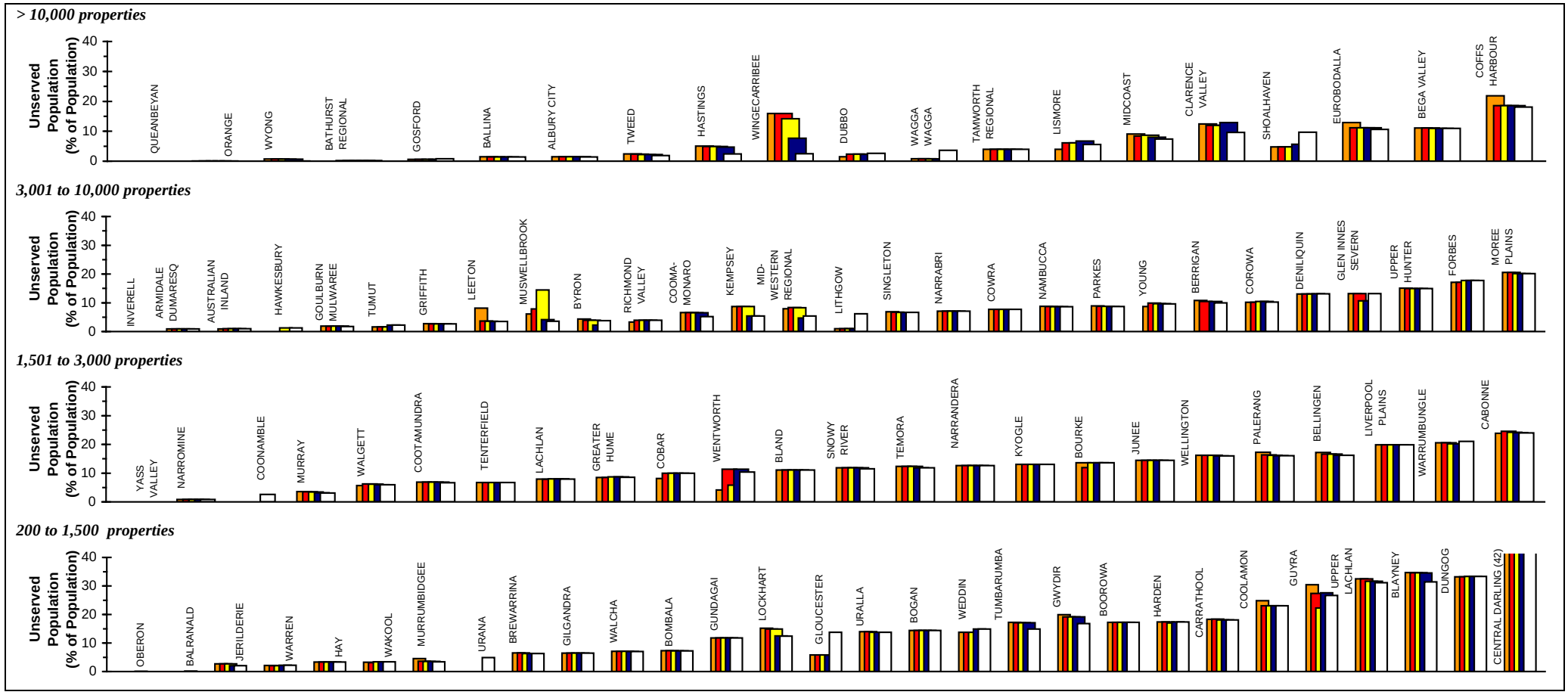


Parameter: Typical Sewerage Developer Charge (Q36)

Notes:

1. This figure shows ranked values of the typical developer charge for sewerage for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the typical developer charge for sewerage for the 26 LWUs shown ***range*** from about $8,000 to $600 per (equivalent tenement) ET. Results for the previous 4 years are also shown in Jan 2005$.
2. The Statewide median typical sewerage developer charge was about $2,870 per equivalent tenement (ET).
3. 45 LWUs levied sewerage developer charges. Most of the 76 LWUs which did not levy water supply developer charges had a growth rate of under 5 lots/a.
4. For general notes see page 10.

52 Urban Population without Sewerage – Sewerage



Parameter: $\frac{\text{Unserved Urban Population (Q6b)}}{\text{Population Served (Q1a) + Unserved Urban Population (Q6b)}}$

Notes:

1. This figure shows 2003/04 ranked values of the percentage of urban population without a reticulated sewerage service for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served for the each LWU – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the percentage of urban population without a sewerage service for the 28 LWUs shown ***range*** from nil to 20%. Results for the previous 4 years are also shown.
2. The Statewide median urban population without a reticulated sewerage service was 2.5.
3. 41% of LWUs had an urban population of at least 500 without a reticulated sewerage service and 18% of LWUs had a population of at least 1000 without a reticulated sewerage service.
4. The percentage of urban population without a reticulated sewerage service for the median LWU was 8%.
5. 84% of LWUs provided a reticulated sewerage service to over 80% of their urban population. Overall, 94% of the urban population in non-metropolitan NSW (ie.1.65 million people) received a reticulated sewerage service.
6. For general notes see page 10.

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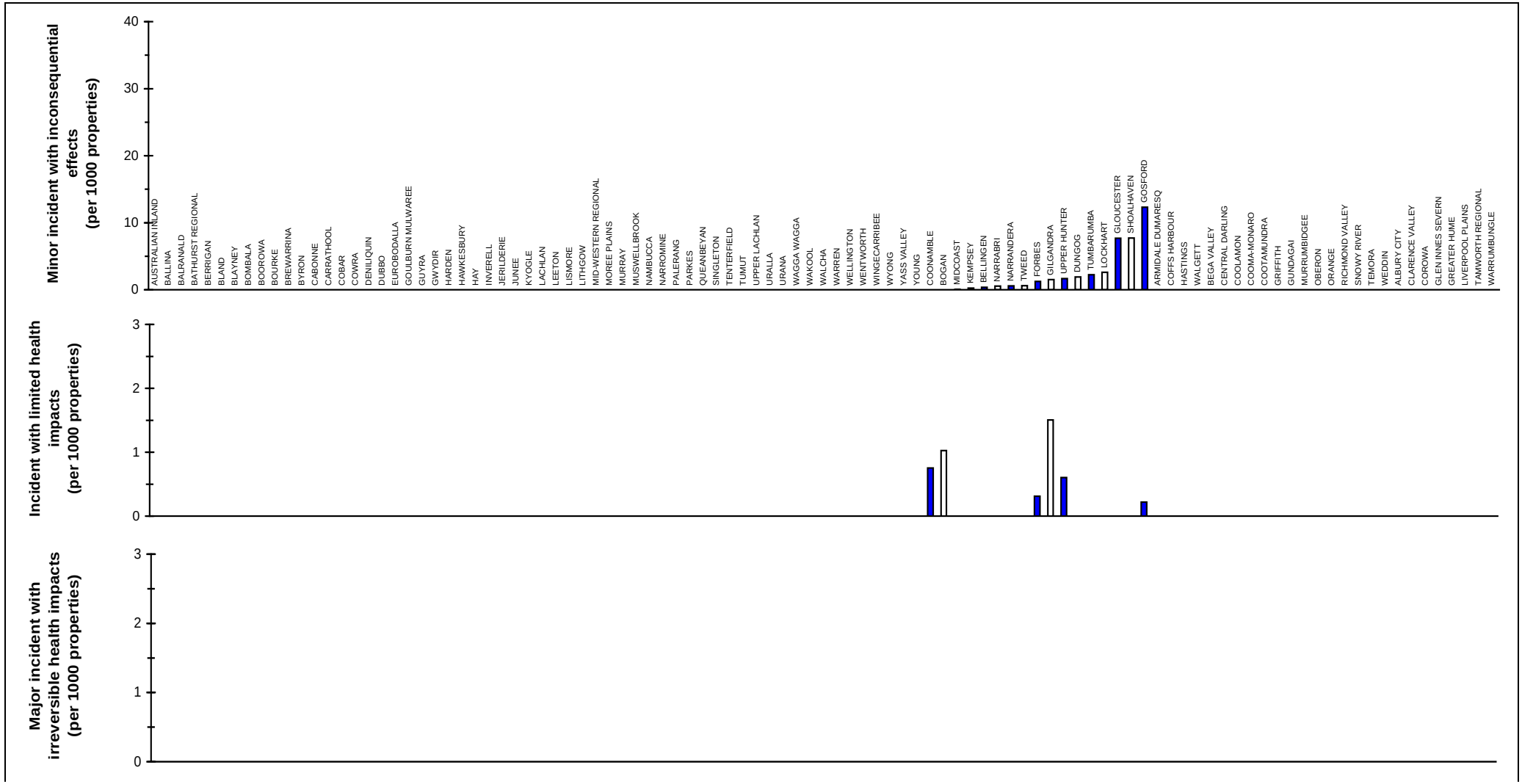
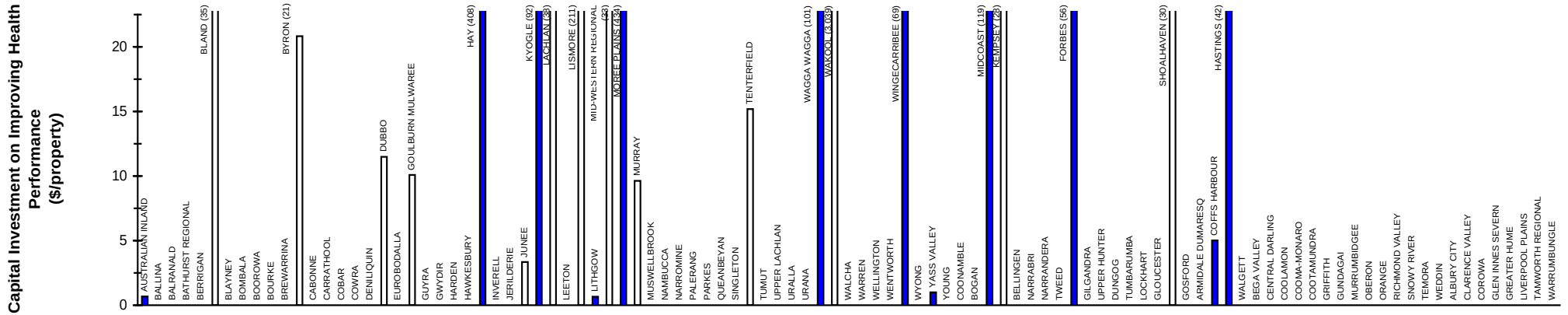
53 Public Health Incidents, Capital Investment – Sewerage





Parameter: $\frac{\text{Total Number of Minor Incident with Inconsequential Effects (TLB Q5a)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Total Number of Incident with Limited Health Impacts (TLB Q5b)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Total Number of Major Incident with Major Health Impacts (TLB Q5c)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Capital Expenditure on Improving Health Performance (\$)(TLB Q3b)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Note:

1. For general notes see page 10.

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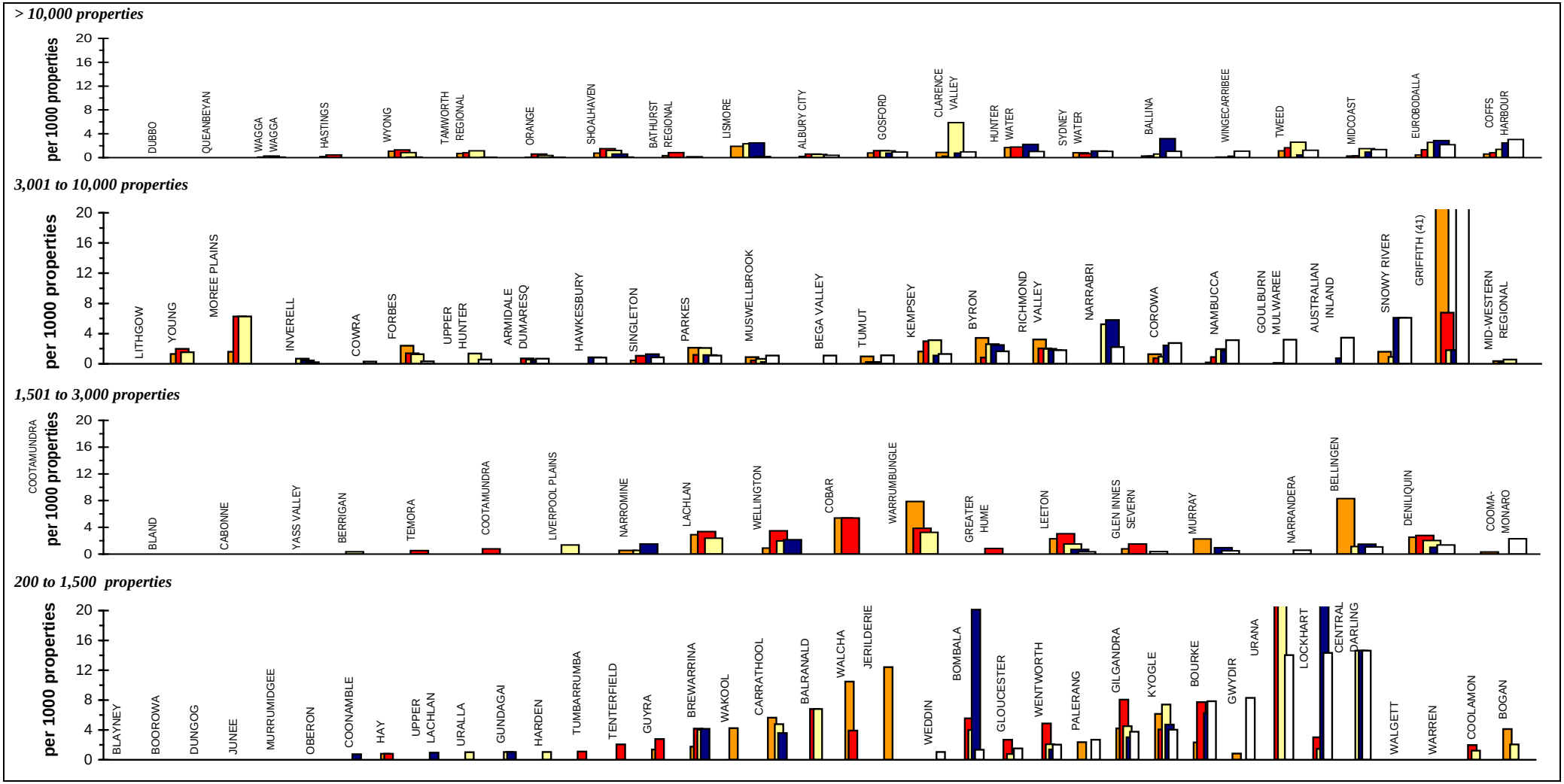
54 Odour Complaints – Sewerage



Parameter: [No. of Odour Complaints from Treatment Works (Q54a) + No. of Odour Complaints from Pumping Stations (Q54b)] x 1000 / [No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the number of sewage odour complaints for 2003/04 for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the number of odour complaints for the 25 LWUs shown ***range*** from ***0 to 41*** complaints per thousand connected properties. Results for the previous 4 years are also shown.
2. The Statewide median number of odour complaints is 0.4 per 1000 properties.
3. 18% of reporting LWUs reported no odour complaints. 9% of LWUs were unable to report on this item.
4. For general notes see page 10.

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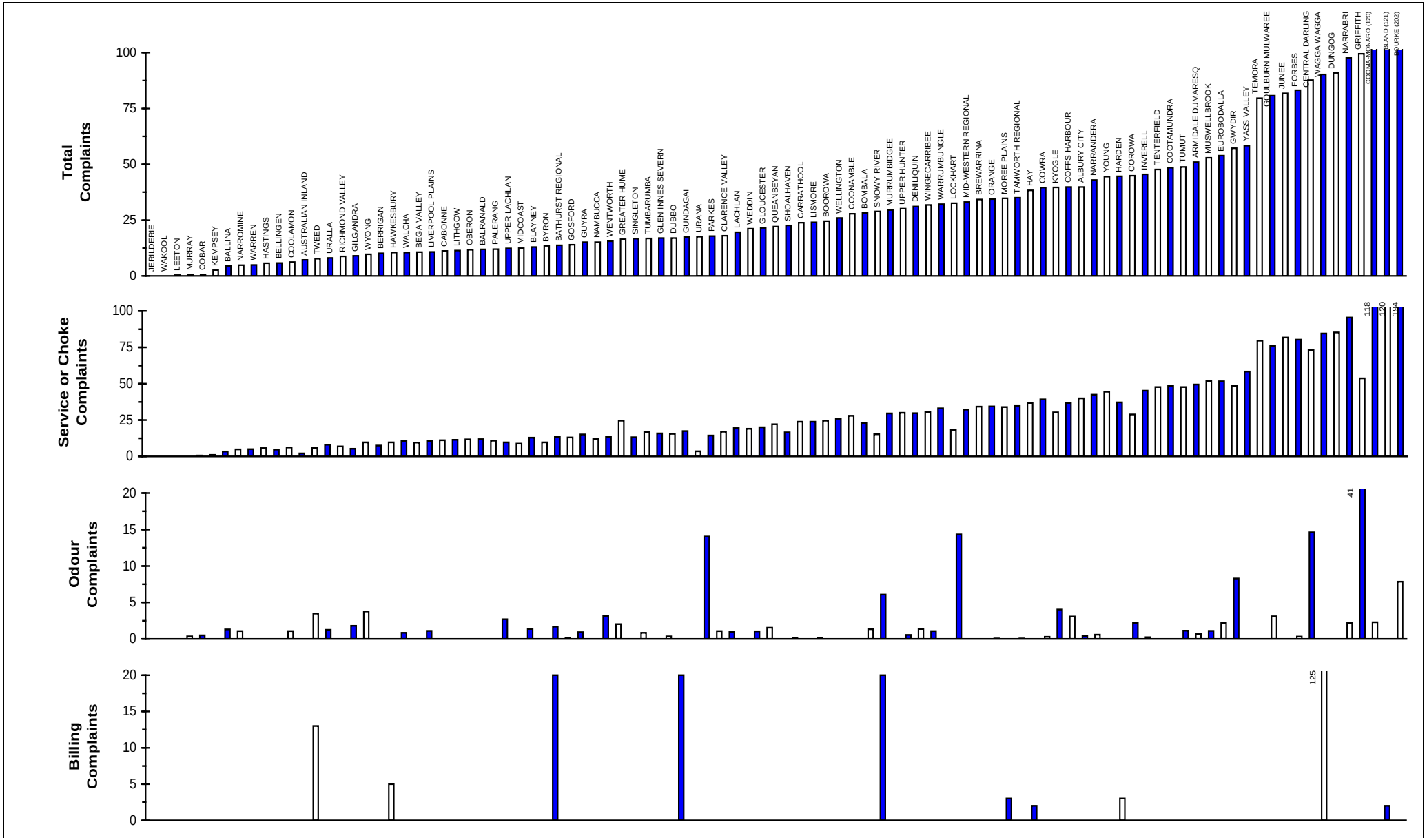
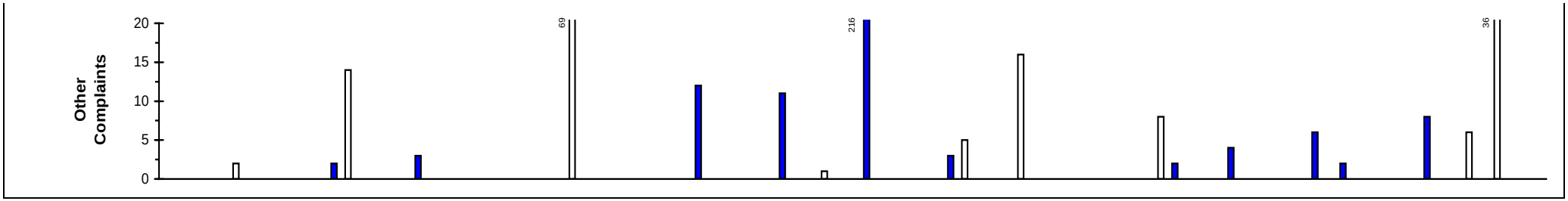
55 Complaints (per 1000 properties) – Sewerage





Parameter: $\frac{\text{Total No. of Complaints [(Q15) + (Q18) + (Q19) + (Q54)] x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Service or Choke Complaints Reported (Q15)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Odour Complaints Reported (Q54)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Billings Complaints Reported (Q18)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Other Complaints Reported (Q19)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Note:

1. For general notes see page 10.

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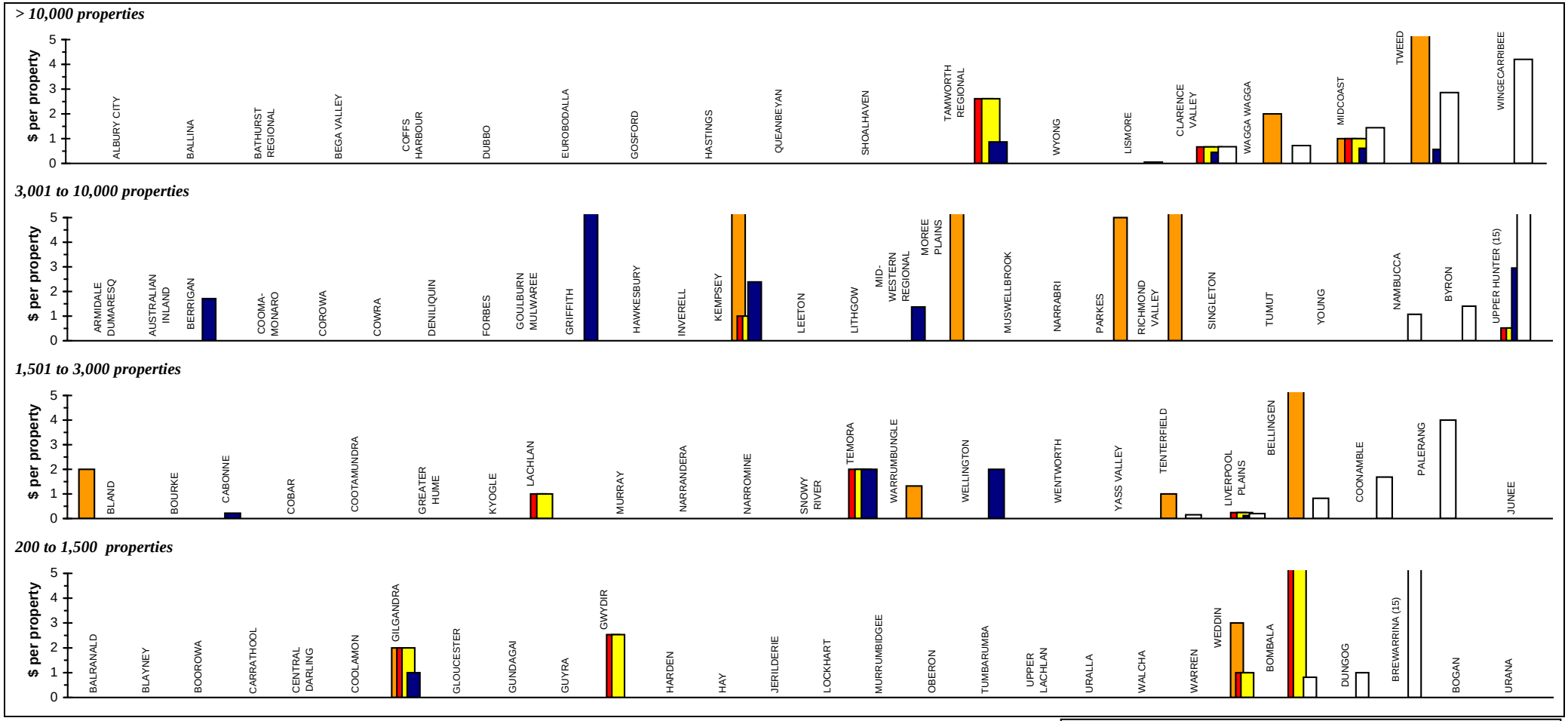
56 Treatment Works Malfunction – Sewerage

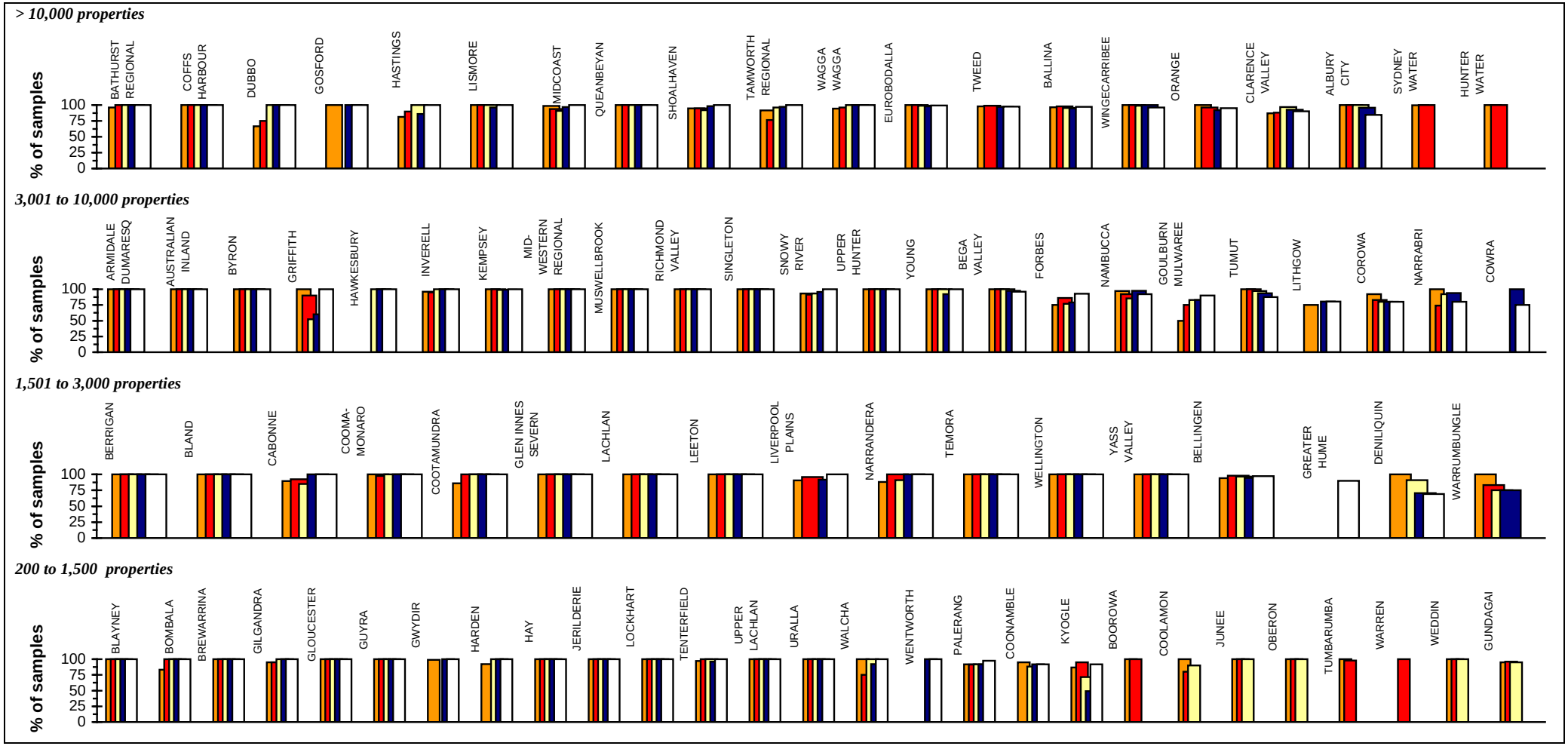


Parameter: Number of Days with Major Malfunction of Treatment Processes (Q53)

Notes:

1. This figure shows ranked values of the 2003/04 number of days of treatment works malfunction for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), number of days of malfunction for the 27 LWUs shown ***range*** from about 0 to 15. Results for the previous 4 years are also shown.
2. For LWUs with more than one treatment works, the weighted average (based on treatment works capacity) was used [Appendix D2 - Sewerage Treatment Works].
3. For general notes see page 10.

57 Compliance with BOD in Licence – Sewerage

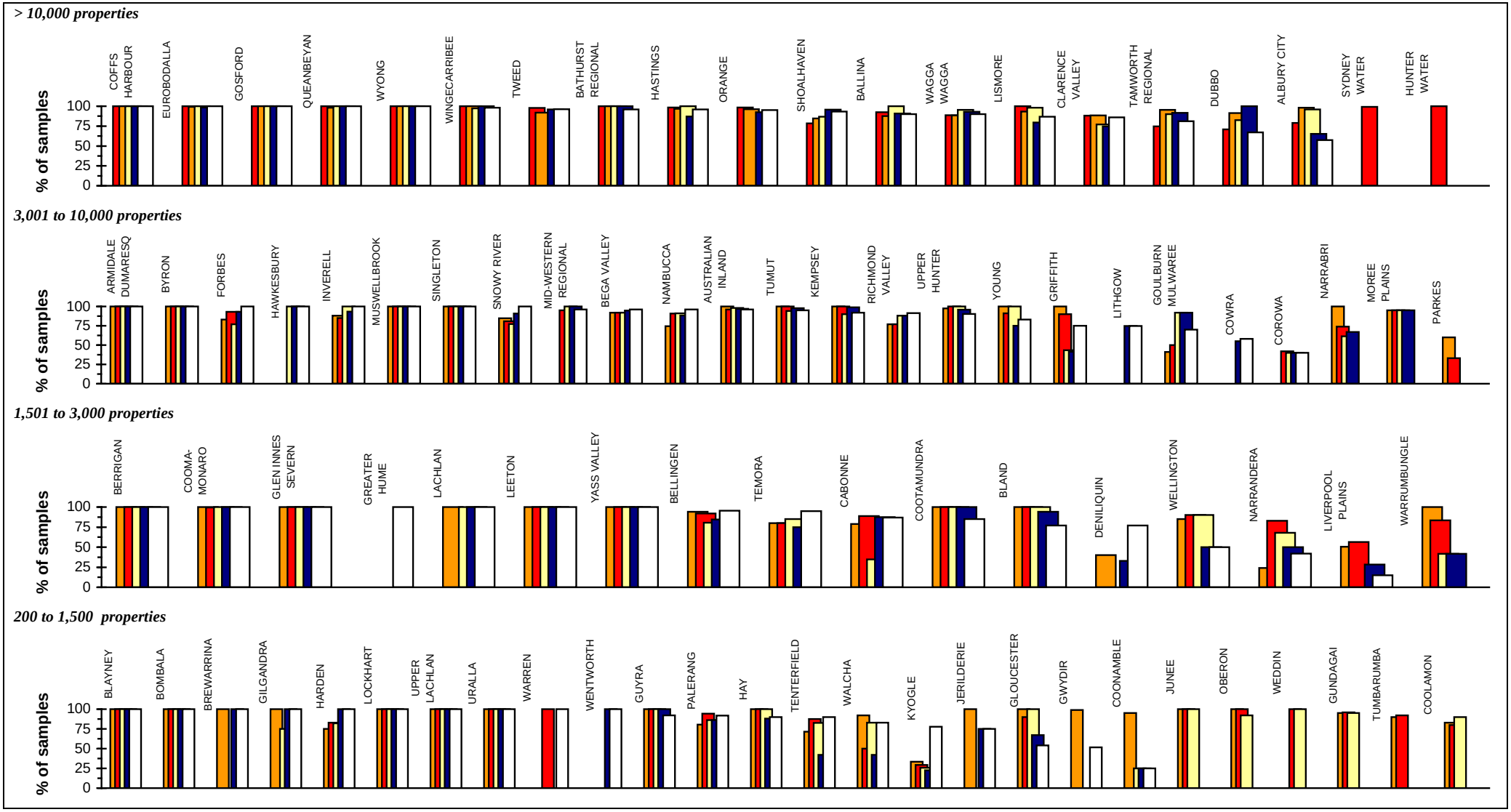


Parameter: Percentage of samples complying with 90 percentile Department of Environment and Conservation (DEC) licence limits for Biochemical Oxygen Demand (BOD) (Q50A)

Note:

1. For general notes see page 10.

58 Compliance with SS in Licence – Sewerage

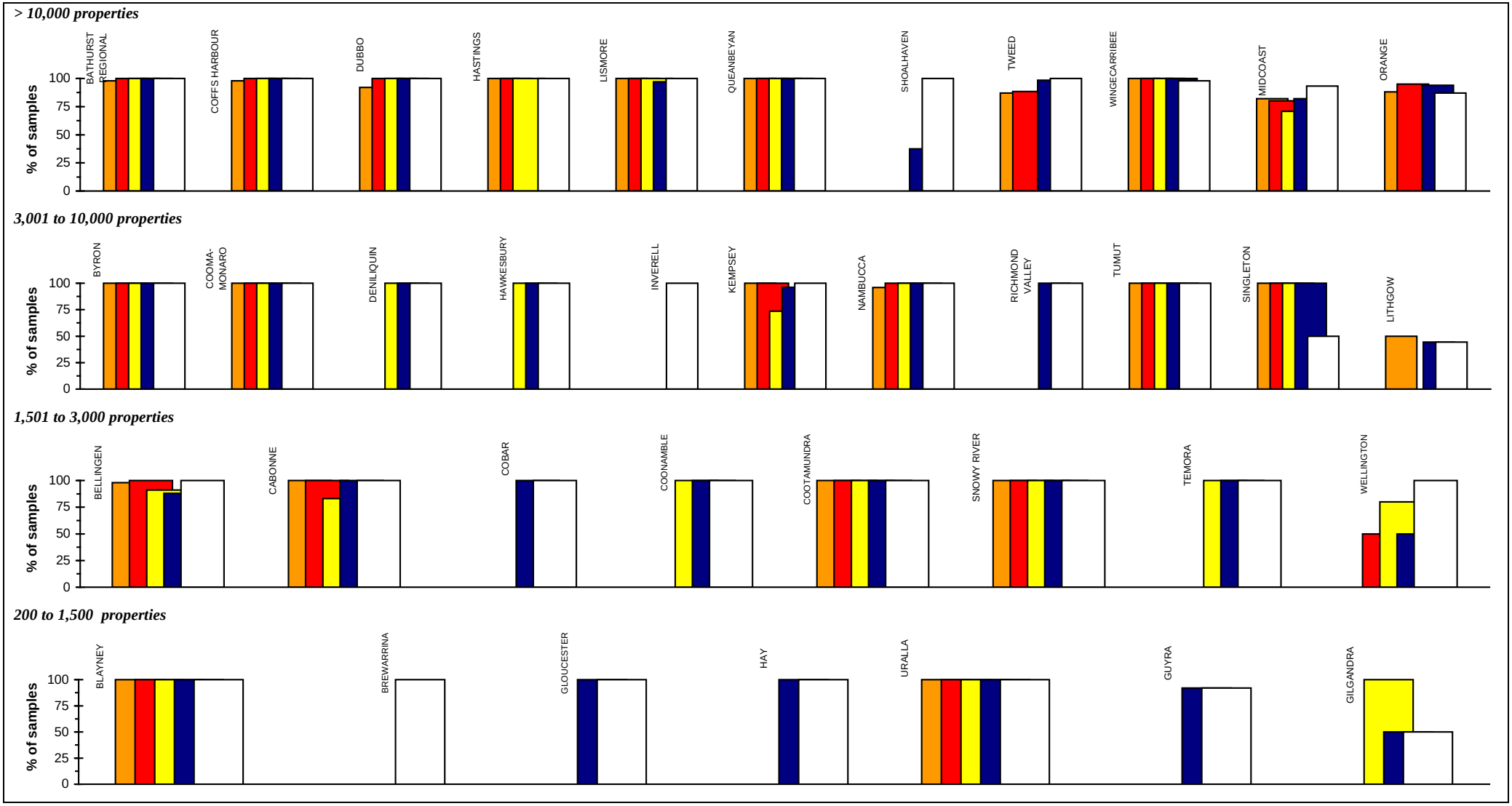


Parameter: Percentage of samples complying with 90 percentile DEC licence limits for Suspended Solids (SS) (Q50b)

Note:

1. For general notes see page 10.

59 Compliance with N in Licence – Sewerage

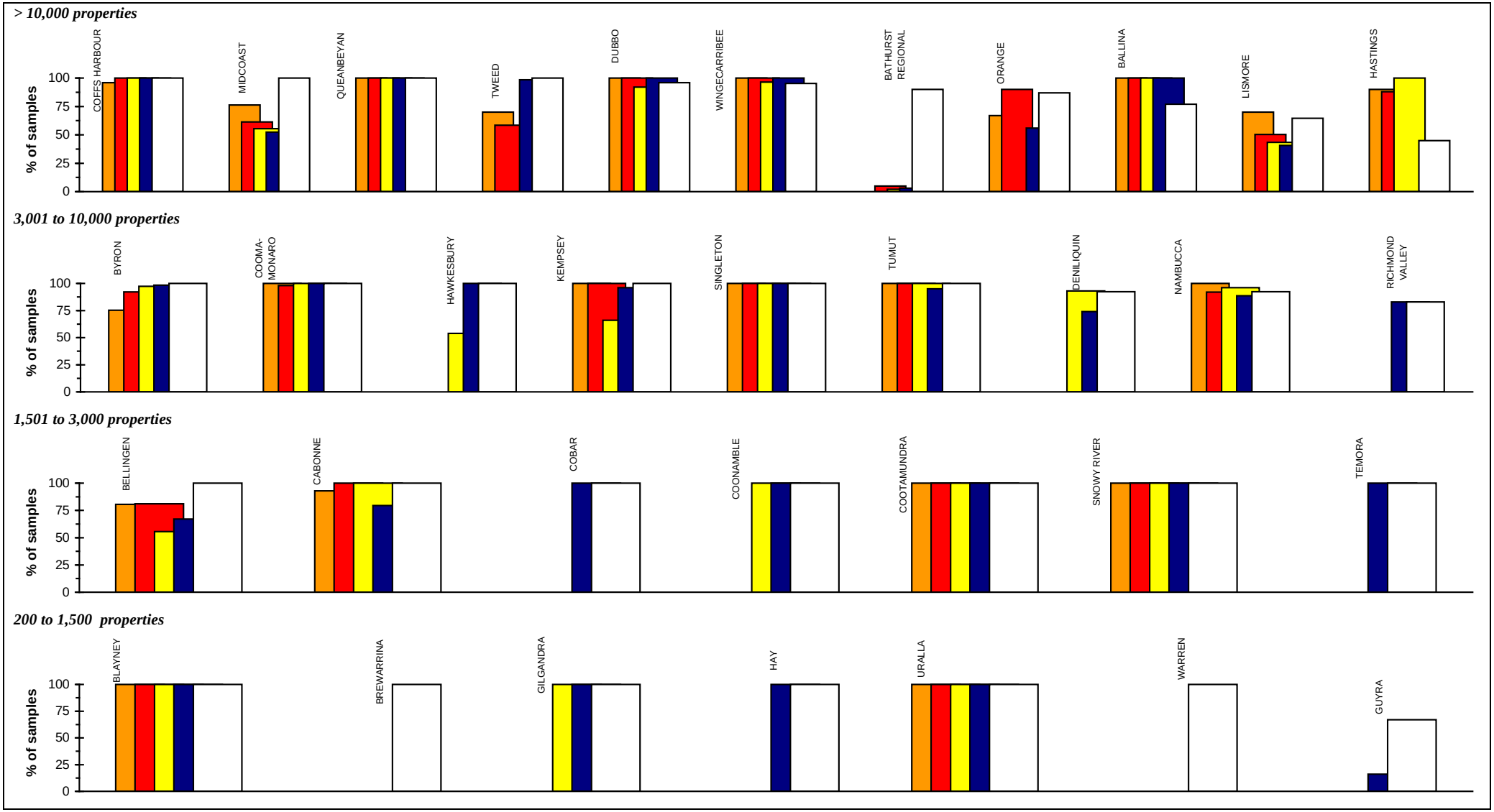


Parameter: Percentage of samples complying with 90 percentile DEC licence limits for Total Nitrogen (Q50c).

Note:

1. For general notes see page 10.

60 Compliance with P in Licence – Sewerage

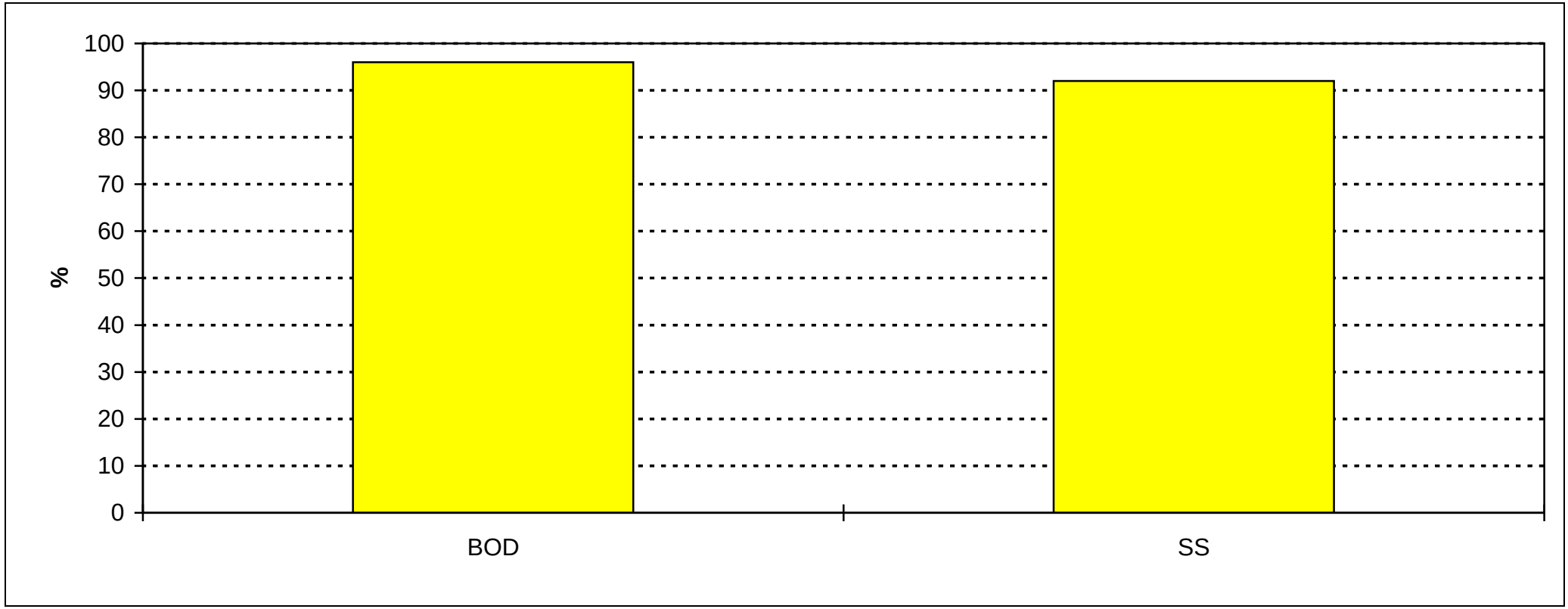


Parameter: Percentage of samples complying with 90 percentile DEC licence limits for Total Phosphorus (Q51f).

Note:

1. For general notes see page 10.

61 Compliance with DEC Licence – Water Supply



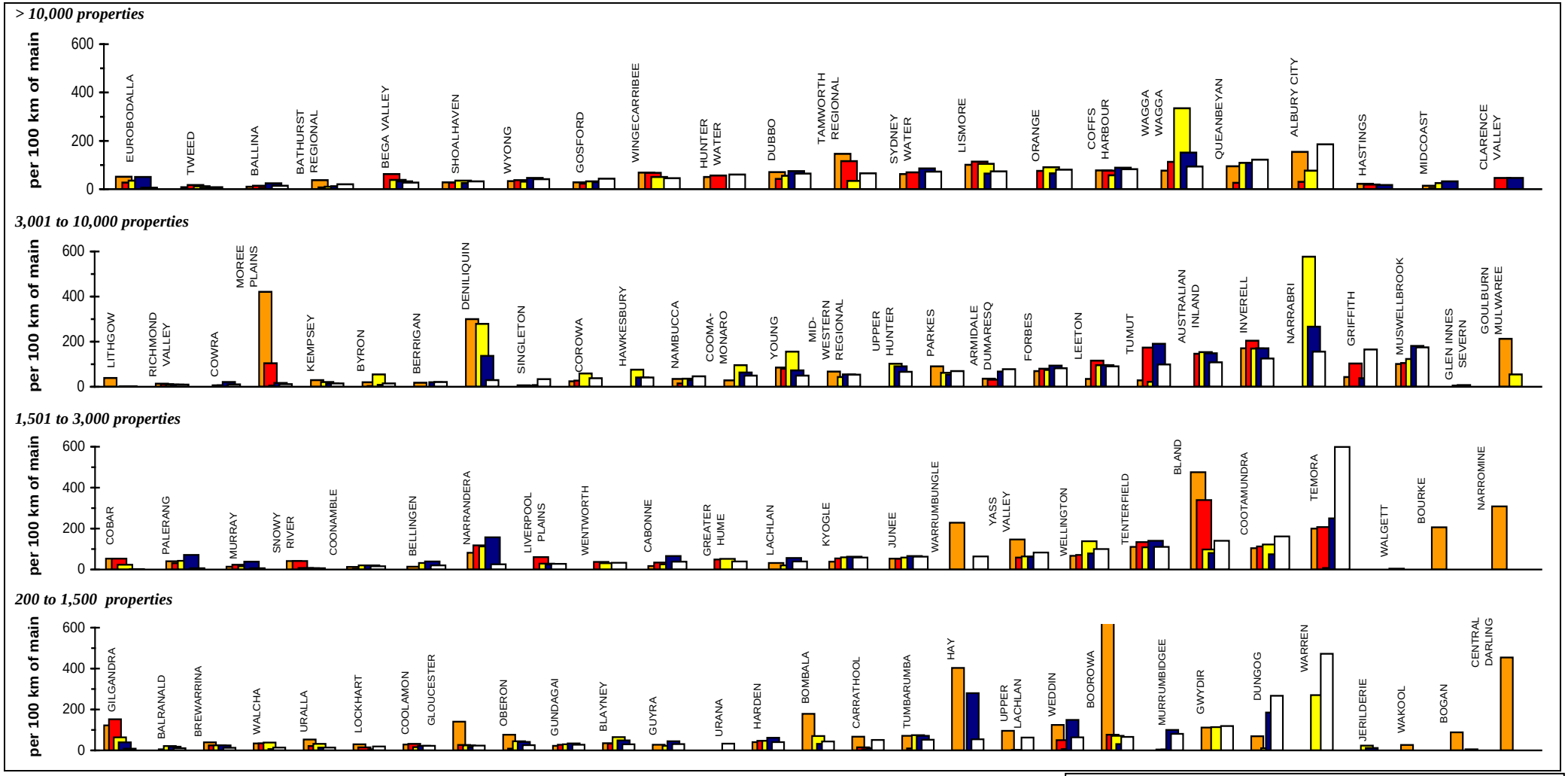
Notes:

1. BOD – 96% of all samples tested for non-metropolitan NSW complied with the 90 percentile limit of their DEC licence in regard to BOD; 58% of Local Water Utilities (LWUs) complied with these limits.
2. SS – 92% of all samples tested for non-metropolitan NSW complied with the 90 percentile limit of their DEC licence in regard to SS; 33% of LWUs complied with these limits.
3. For LWUs with more than one sewage treatment works, the reported compliance has been pro-rated on the basis of the number of sampling days at each treatment works.
4. The major cause of non-compliance is due to the growth of algae in maturation ponds, being measured as BOD and SS. Most treatment works in non-metropolitan NSW have maturation ponds due to previous DEC preference for ponding over chlorination. Negotiations with the DEC to develop an appropriate licensing method when maturation ponds are used for disinfection have favoured an option to test for SS prior to the maturation ponds. For new installations and major augmentations, Ultra Violet (UV) disinfection is being used rather than maturation ponds to overcome this problem.
5. Typical numbers of sampling days reported for treatment works are:

< 4,000 ep	15
about 15,000 ep	40
> 25,000 ep	>100

6. 16% of LWUs did not report on their BOD and SS compliance. All LWUs with an DEC discharge licence should carry out the necessary sampling of effluent quality and report thereon in future.
7. For general notes see page 10.

62 Sewer Main Chokes and Collapses – Sewerage

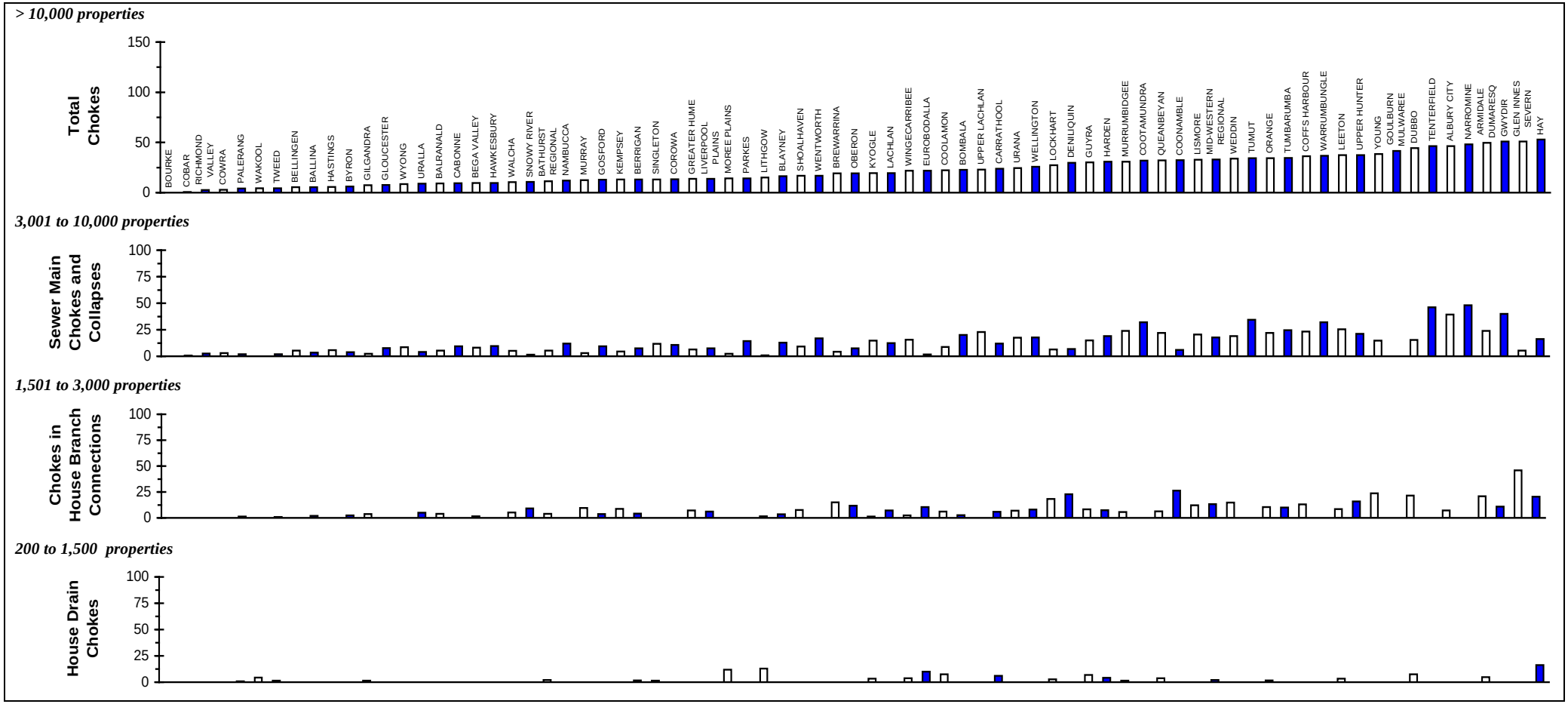


Parameter: $\frac{\text{Total No. of Confirmed Sewer Chokes (Q21) X 100}}{\text{Length of Reticulation/Gravity Mains (Q10a) + Length of Rising Mains (Q10b)}}$

Notes:

1. This figure shows ranked values of the sewer main chokes and collapses for 2003/04 for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the number of sewer main chokes and collapses for the 28 LWUs shown ***range*** from about 2 to 175 chokes per 100 km of sewer mains. The 2 LWUs on the right did not report this indicator for 2003/04. Results for the previous 4 years are also shown.
2. The Statewide median sewer main chokes and collapses is 41 per 100 km of sewer main.
3. 10% of LWUs were unable to report on this item and these LWUs should institute a system to record and report such occurrences.
4. For general notes see page 10.

63 Total Chokes (per 1000 properties) – Sewerage



Parameter: $\frac{\text{[No. of Confirmed Sewer Chokes (Q21) + No. of Chokes in House Branch Connections (Q23) + No. of Chokes in House Drains (Q24)] x 1000}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Confirmed Sewer Chokes (Q21) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

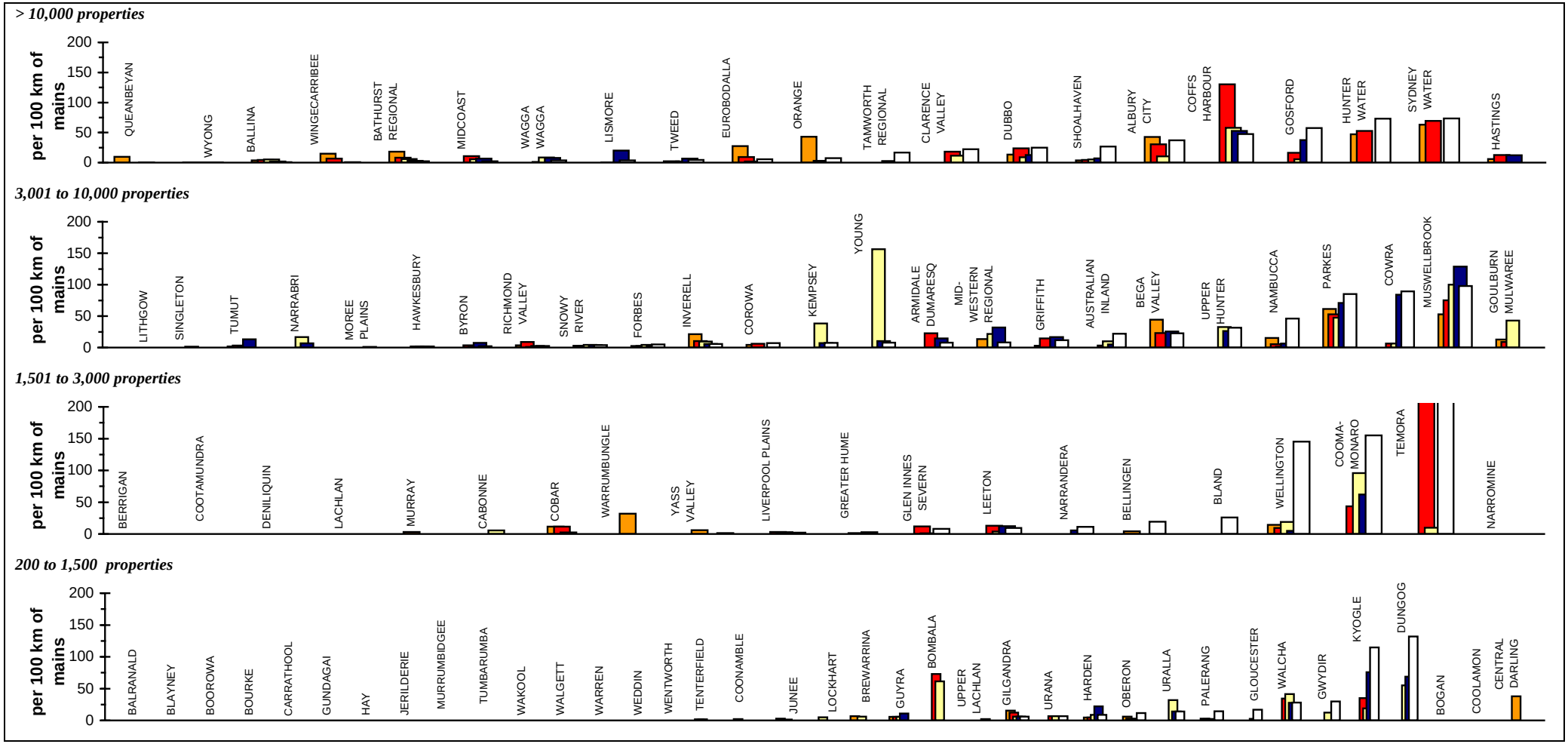
Parameter: $\frac{\text{No. of Chokes in House Branch Connections (Q23) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{No. of Chokes in House Drains (Q24) x 1000}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Notes:

1. For general notes see page 10.

64 Sewer Overflows to the Environment – Sewerage



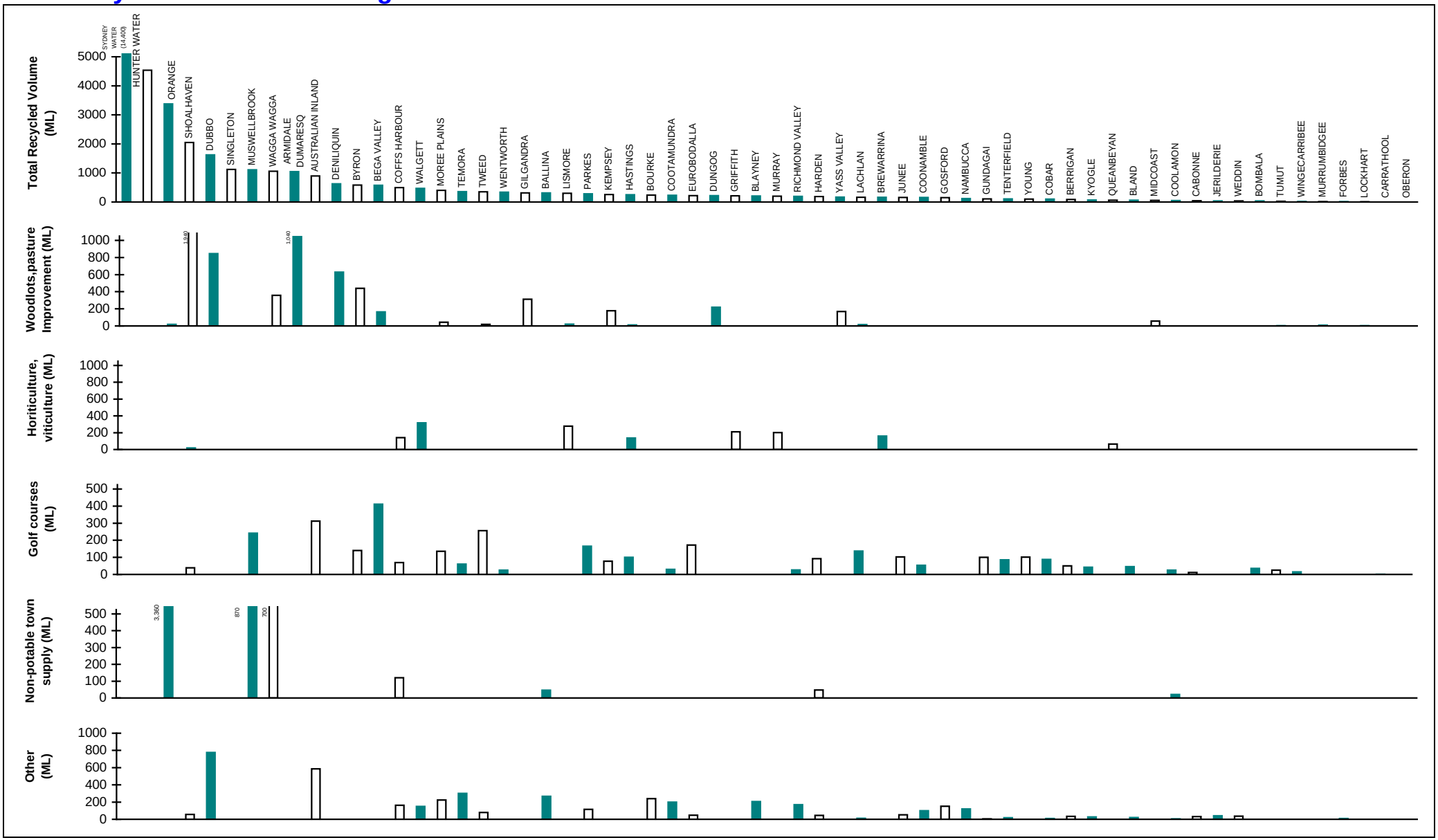
Parameter:

$$\frac{\text{Total No. of Sewage Overflows (Q20) X 100}}{\text{Length of Reticulation/Gravity Mains (Q10a) + Length of Rising Mains (Q10b)}}$$

Notes:

1. This figure shows ranked values of the sewer overflows to the environment for 2003/04 for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the sewer overflows to the environment for the 25 LWUs shown ***range*** from ***nil to 129*** overflows per 100 km of sewer mains. The 4 LWUs on the right did not report this indicator for 2003/04. Results for the previous 4 years are also shown.
2. The Statewide median sewer overflows to the environment is 7 per 100 km of sewer main.
3. Some 38% of LWUs reported no sewer overflows.
4. For general notes see page 10.

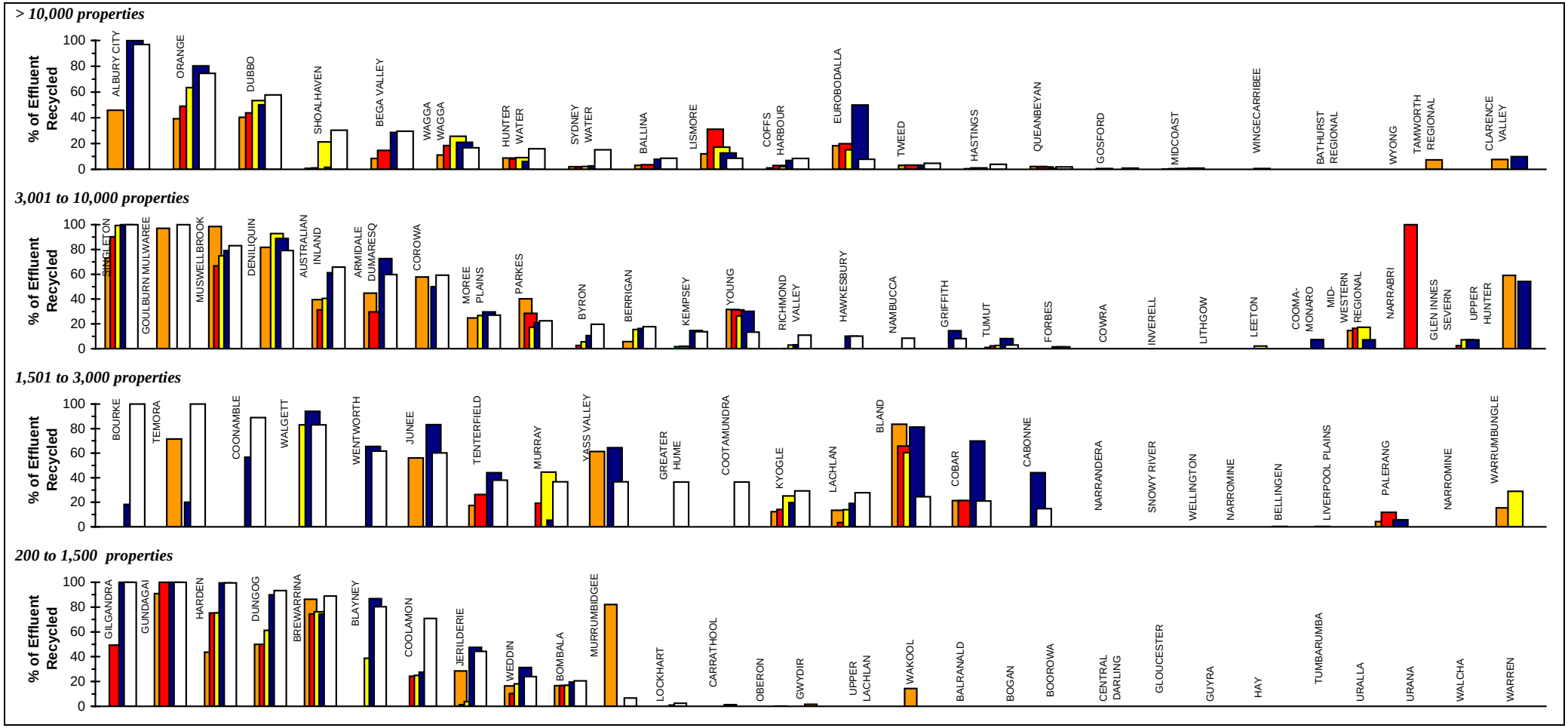
65 Recycled Water – Sewerage



Note:

1. The total volume of recycled water for non-metropolitan NSW was 31,000 ML, which was 20% of the total volume of sewage collected. Re-use of recycled water was carried out by ***68%*** of LWUs. ***26%*** of LWUs recycled over 50% of their effluent.
2. For general notes see page 10.

66 Recycled Water (% of Effluent Recycled) – Sewerage

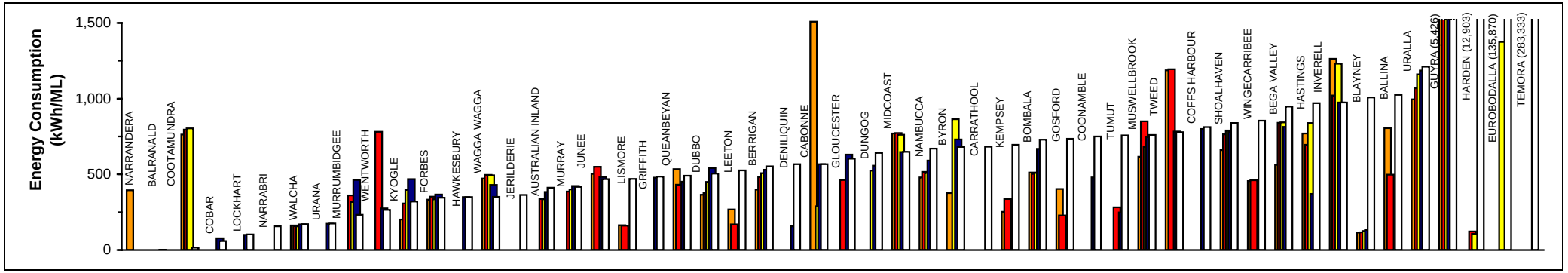


Parameter: $\frac{\text{Total Volume Recycled (Q42f) x 100}}{\text{Volume of Sewage Receiving Secondary Treatment (Q41c)}}$

Notes:

1. This figure shows ranked values of the recycled water in 2003/04 for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served– over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the recycled water for 28 LWUs shown ***range*** from 100% to 1.4%. The 9 LWUs on the right did not report their 2003/04 use of recycled water. Results for the previous 4 years are also shown.
2. The Statewide median reuse of recycled water is 10%.
3. Reuse of recycled water was carried out by about 68% of LWUs. Statewide 20% of the effluent from sewage treatment works was recycled.
4. 32 LWUs recycled over 50% of their sewage effluent. For general notes see page 10.

67 Energy Consumption per ML – Sewerage

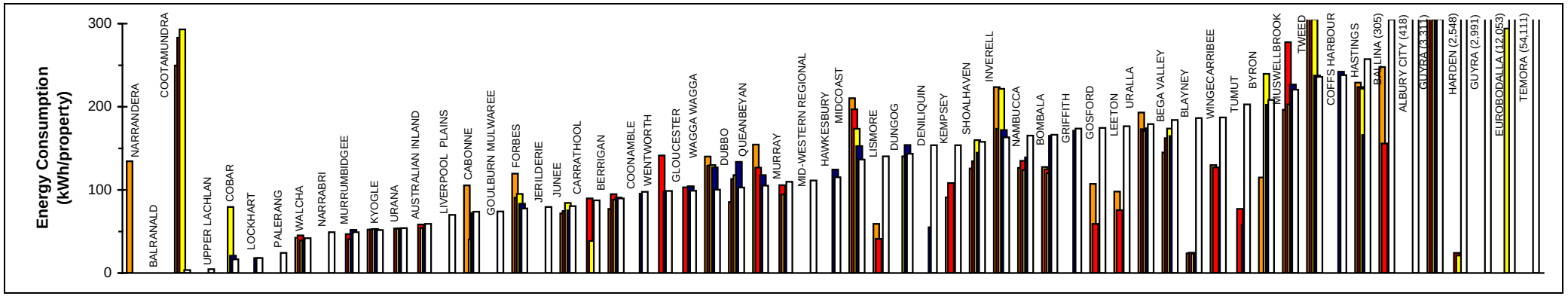


Parameter: Total Energy Usage (Q28a) x 1000 / Volume of Sewage Receiving Secondary Treatment (Q41c)

Notes:

1. This figure shows ranked values of the 2003/04 total energy consumption per ML. The energy consumption per ML for the 52 Local Water Utilities (LWUs) shown ranges from about 1 to 283,333 kWh per ML. Results for the previous 4 years are also shown.
2. For general notes see page 10.

68 Energy Consumption per Property – Sewerage

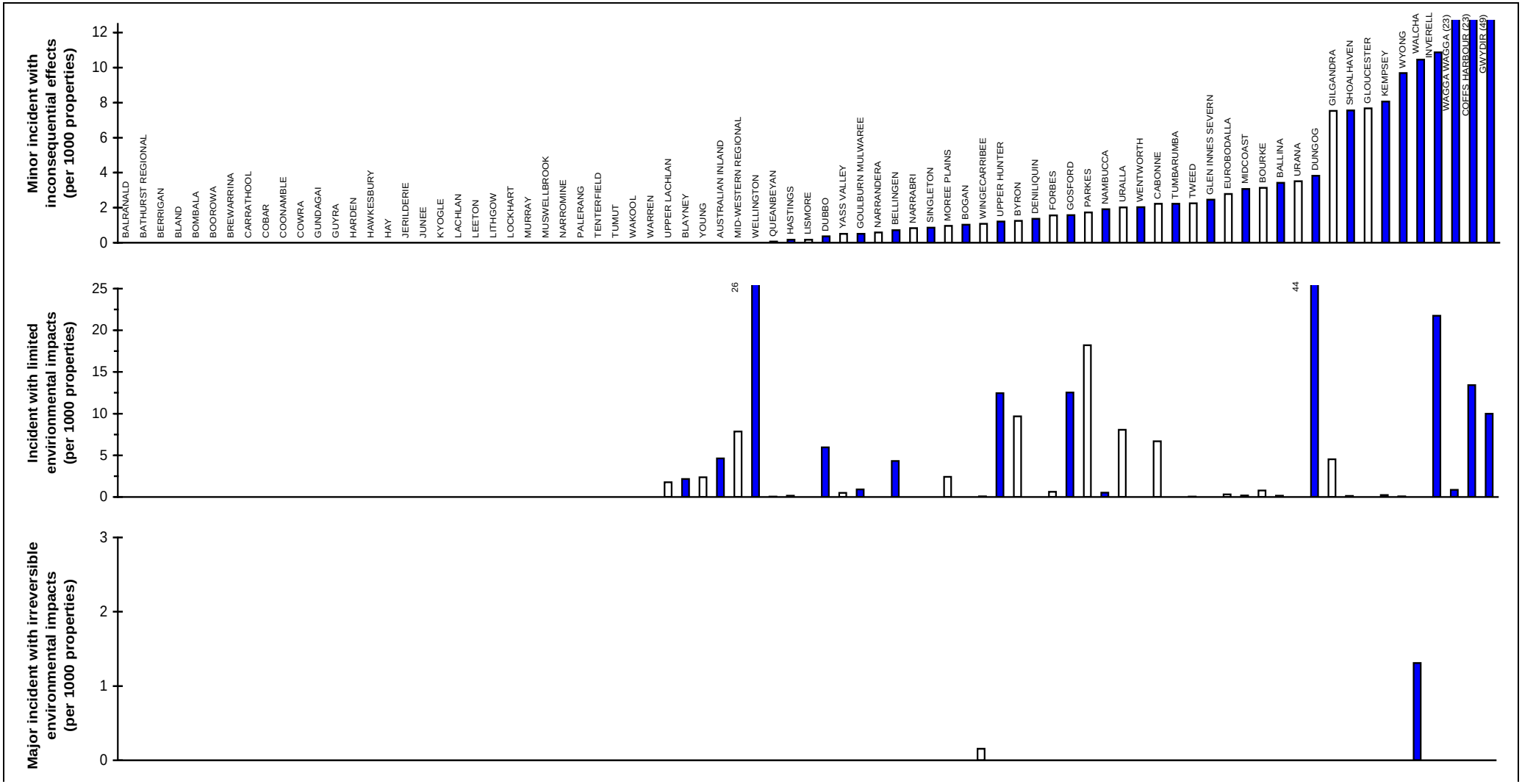


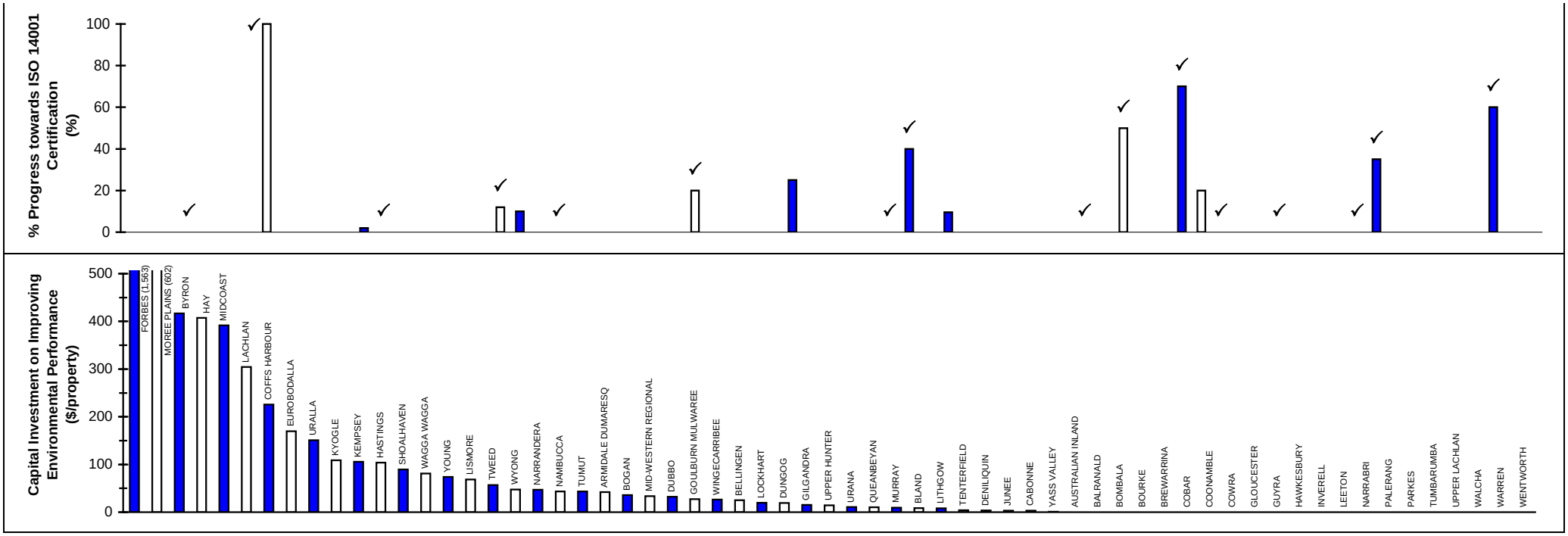
Parameter: Total Energy Usage (Q28a) x 1000 / [No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment

Notes:

1. This figure shows ranked values of the energy usage per property in 2003/04 for each Local Water Utility (LWU). ***Each white bar represents one LWU.*** The energy usage for the 59 LWUs shown ***range*** from about 0.1 to 54,111 kWh per connected property. Results for the previous 4 years are also shown. Only 57% of LWUs provided a response to this item and all LWUs should report thereon in future.
2. For general notes see page 10.

69 Environmental Incidents, Management Systems, Capital Investment – Sewerage





Parameter: $\frac{\text{Total Number of Minor Incident with Inconsequential Effects (TBL Q1a)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Total Number of Incident with Limited Environmental Impacts (TBL Q1b)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: $\frac{\text{Total Number of Incident with Irreversible Environmental Impacts (TBL Q1d)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Parameter: % Progress Towards ISO 14001 Certification (Q2c)

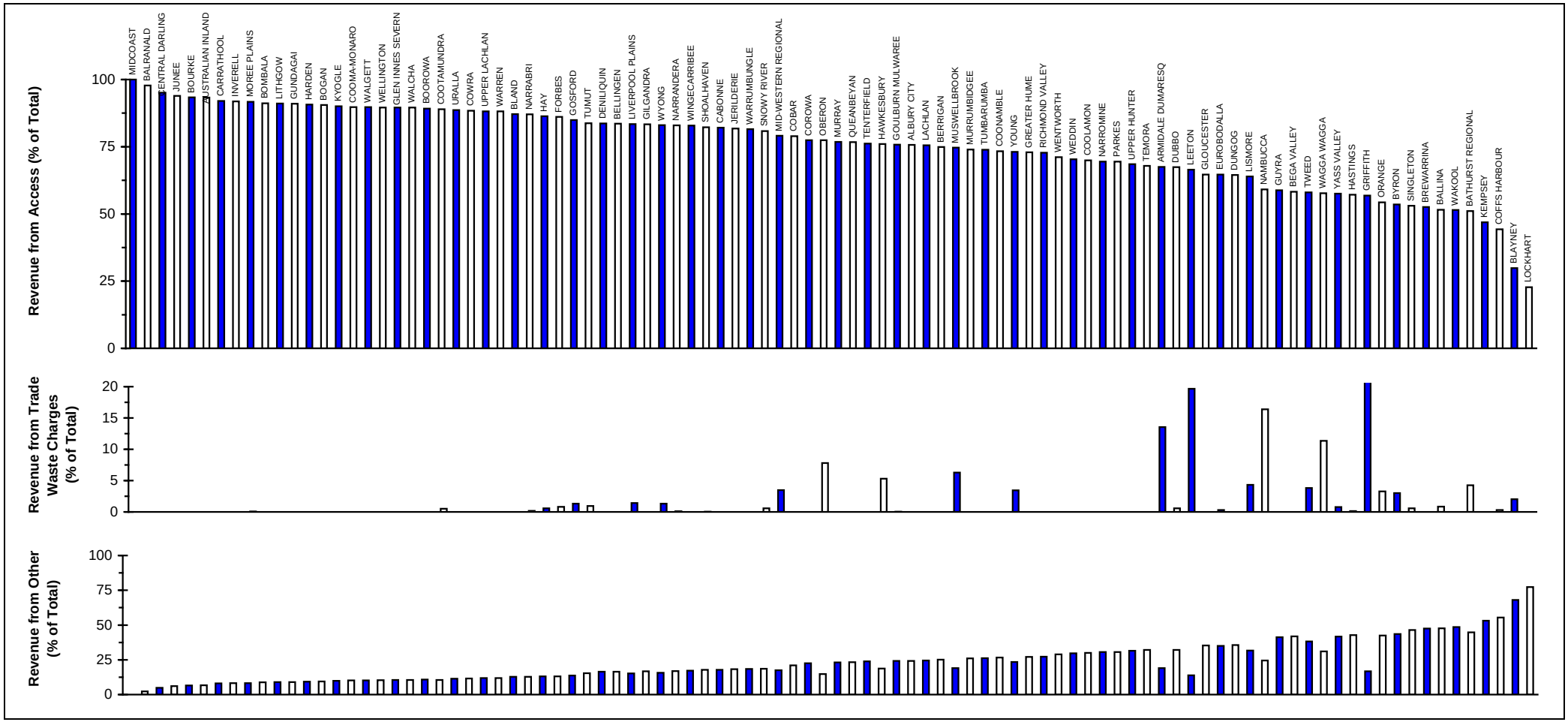
Parameter: $\frac{\text{Capital Expenditure on Improving Environmental Performance ($) (TBL Q3a)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$

Note:

1. For general notes see page 10.

.

70 Revenue for Access, Trade Waste – Sewerage



Parameter: $\frac{\text{Rates and Services Availability Charges [(S6) + (S7a)] X 100}}{\text{Total Revenue (S14)}}$

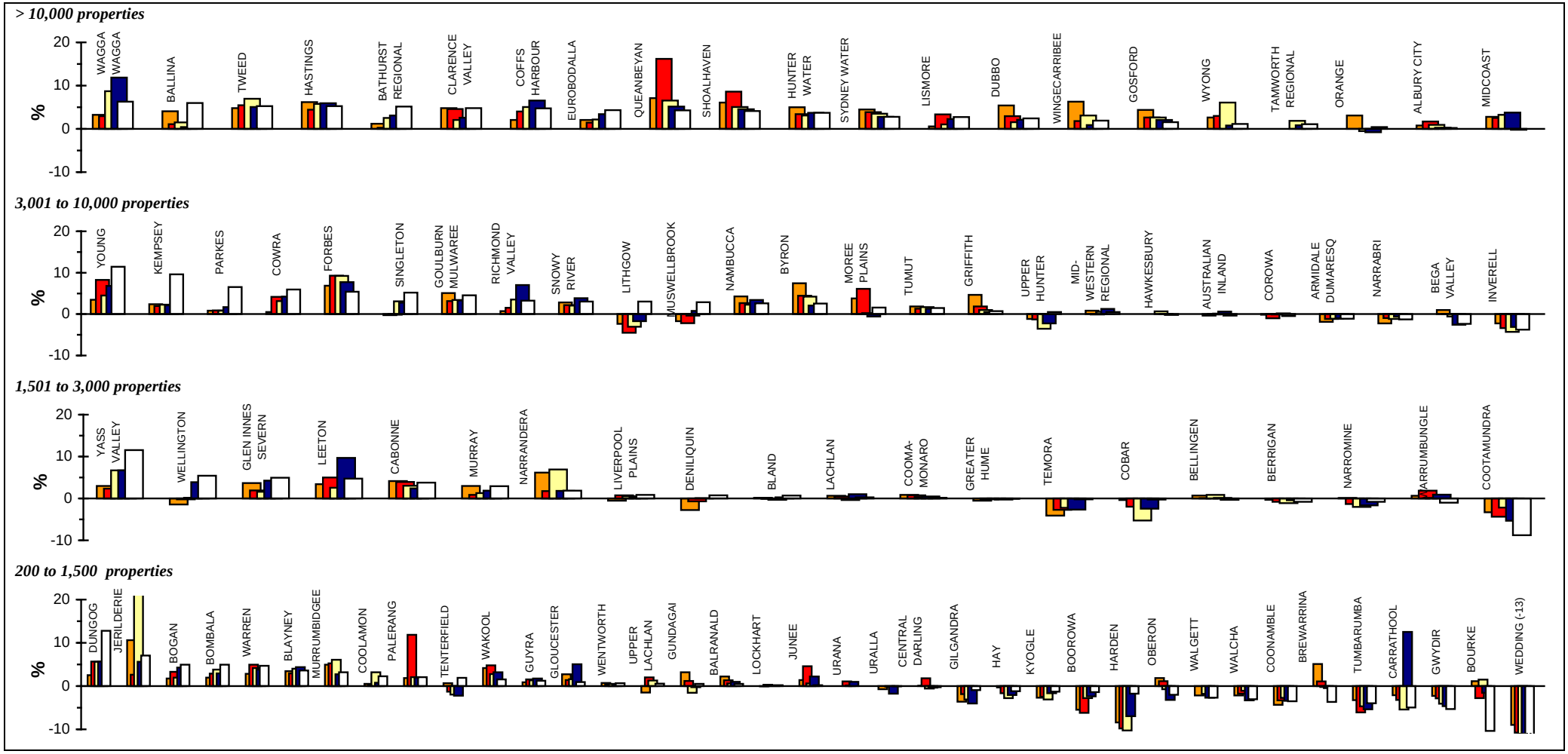
Parameter: $\frac{\text{Trade Wastes Charges (S8) X 100}}{\text{Total Revenue (S14)}}$

Parameter: $\frac{\text{[Other Sales and Charges (S11) + Extra Charges (S9) + Interest Income (S10) + Other Grants (S12C) + Contributions (S13)] X 100}}{\text{Total Revenues (S14)}}$

Notes:

1. For general notes see page 10.

71 Economic Real Rate of Return – Sewerage



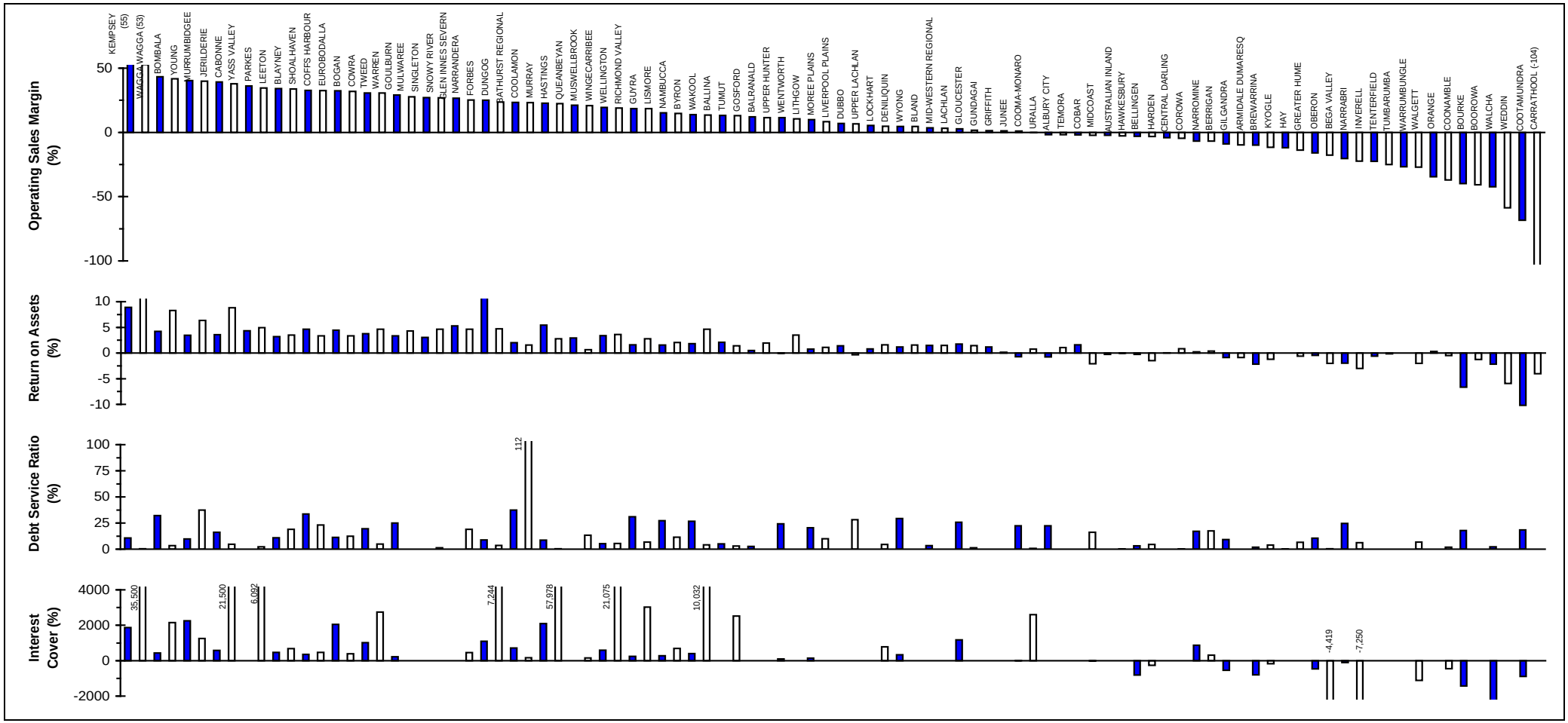
Parameter: [Total Revenue (S14) - Grants for Acquisition of Assets (S12a) - Total Expenses (S5) + Interest Expense (S4a) - Interest Income(S10)] x 100 / Written Down Replacement Cost of Property, Plant & Equipment (S48)

1999/00 2000/01 2001/02 2002/03 2003/04

Notes:

1. This figure shows 2003/04 ranked values of the sewerage economic real rate of return (ERRR) for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the real rates of return for the 25 LWUs shown ***range*** from about ***11% to –4%***. Results for the previous 4 years are also shown.
2. The Statewide median sewerage ERRR is 1.9%.
3. The ERRR was not reported for Sydney and Hunter Water Corporations from 2001/02 to 2003/04. The reported values for return on assets have been shown for these years.
4. The ERRR includes developer provided assets.
5. For general notes see page 10.

72 Operating Sales Margin, Return on Assets, Debt Service Ratio, Interest Cover – Sewerage



Parameter: $\frac{\text{[Total Revenue (S14) - Grants for Acquisition of Assets (S12a) - Developer Provided Assets (S13b) - Total Expense (S5) + Interest Expenses (S4a) - Interest Income (S10)] x 100}{\text{Total Revenue (S14) - Grants for Acquisition of Assets (S12a) - Developer Provided Assets (S13b) - Interest Income (S10)}}$

Parameter: $\frac{\text{[Total Revenue (S14) - Grants for Acquisition of Assets (S12a) - Total Expenses (S5) + Interest Expenses (4a)] x 100}}{\text{Total Assets (S36)}}$

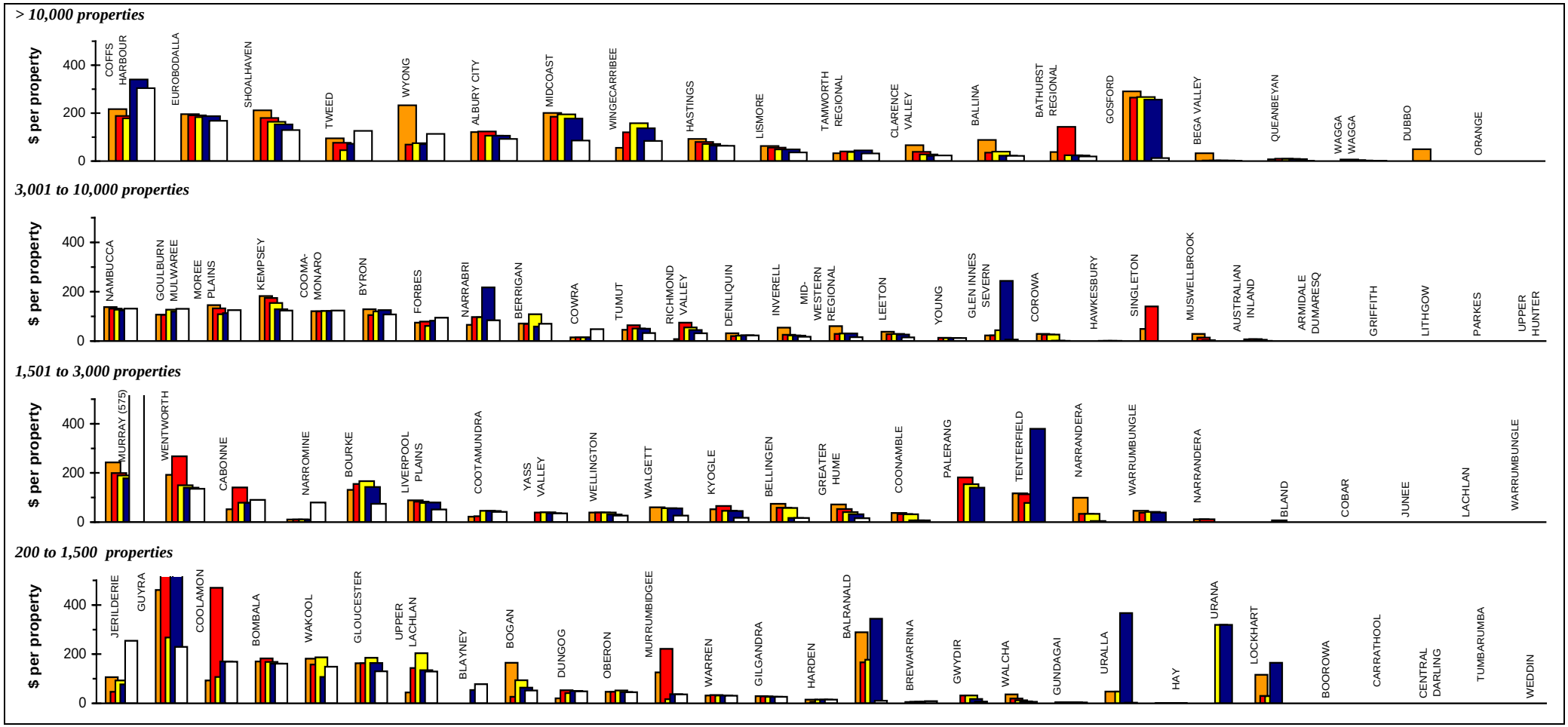
Parameter: $\frac{\text{[Payment of Debts (S18) + Interest Expense (S4a)] x 100}}{\text{Total Revenue (S14) - Grants for Acquisition of Assets (S12a) - Developer Provided Assets (S13b)}}$

Parameter: $\frac{\text{[Total Revenue (S14) - Grants for Acquisition of Assets (S12a) - Total Expenses (S5) + Interest Expense (S4a)] x 100}}{\text{Interest Expense (S4a)}}$

Notes:

1. For general notes see page 10.

73 Loan Payment – Sewerage



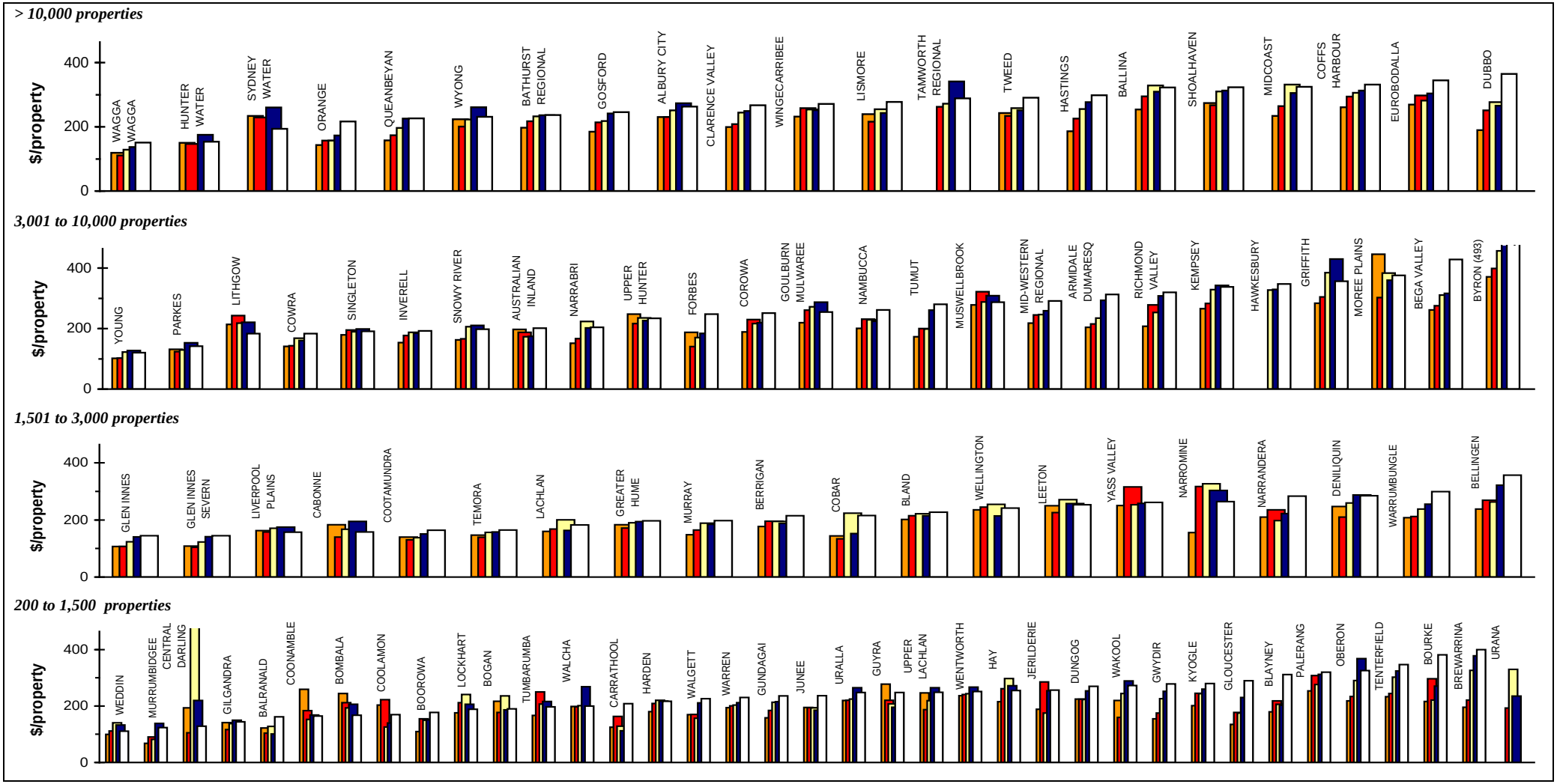
Parameter:

$$\frac{\text{Payment of Debts (S18) + Interest Expense (S4a)}}{\text{No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows 2003/04 ranked values of the sewerage loan payment per property for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the sewerage loan payments for 26 LWUs shown ***range*** from about $132 to nil per connected property. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median sewerage loan payment is $37 per connected property.
3. For general notes see page 10.

74 Operating Cost (OMA) per property – Sewerage



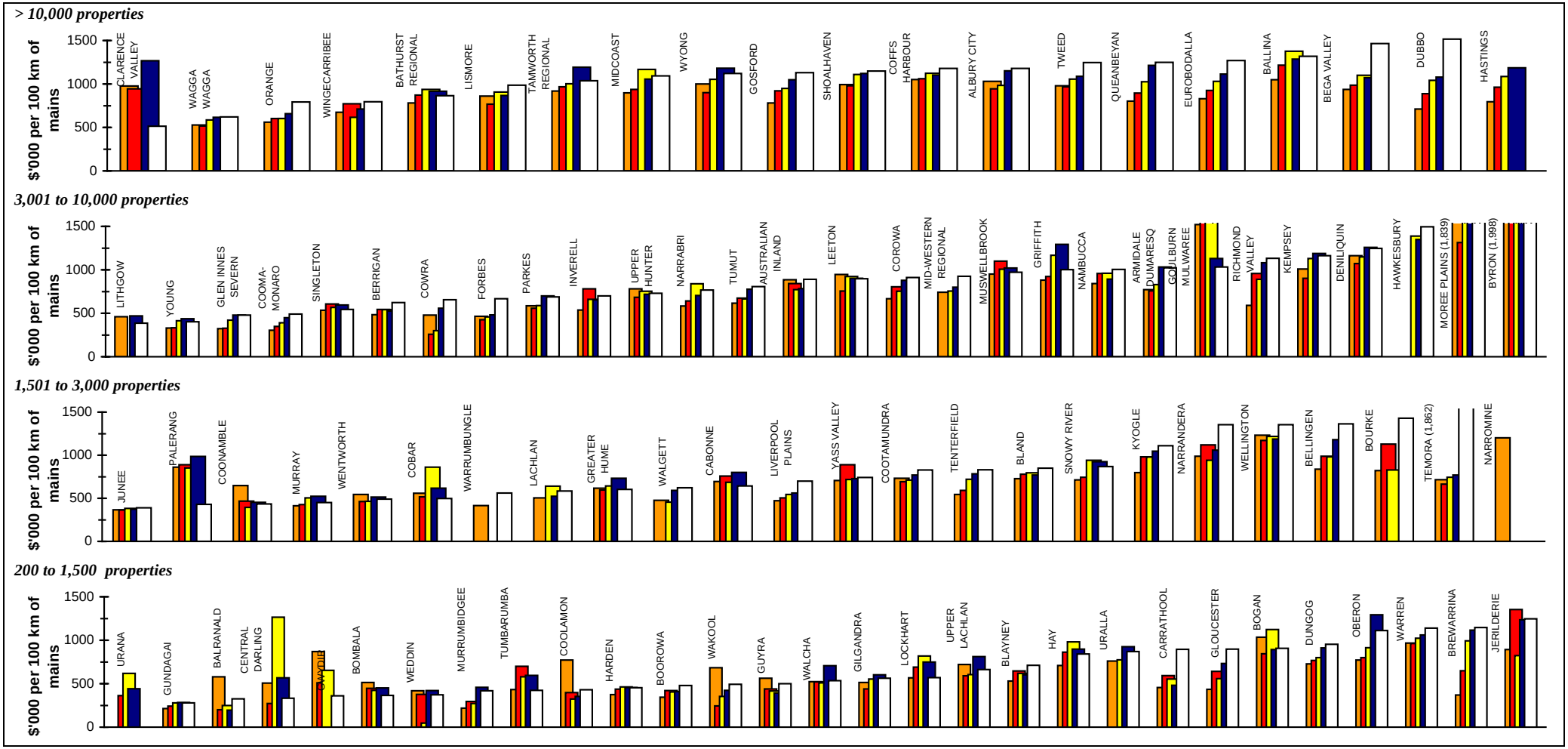
Parameter:

$$\frac{\text{Management Expenses (S1) + Total Operation and Maintenance Expenses (S2)}}{\text{No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the 2003/04 sewerage operating cost (OMA - operation, maintenance and administration cost) per connected property for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the sewerage operating cost for the 25 LWUs shown ***range*** from about ***$121 to $493*** per connected property. Results for the previous 4 years are also shown in Jan 2004$.
2. The 2003/04 Statewide median sewerage operating cost is $265 per connected property.
3. For general notes see page 10.

75 Operating (OMA) Cost per 100 km of Main – Sewerage

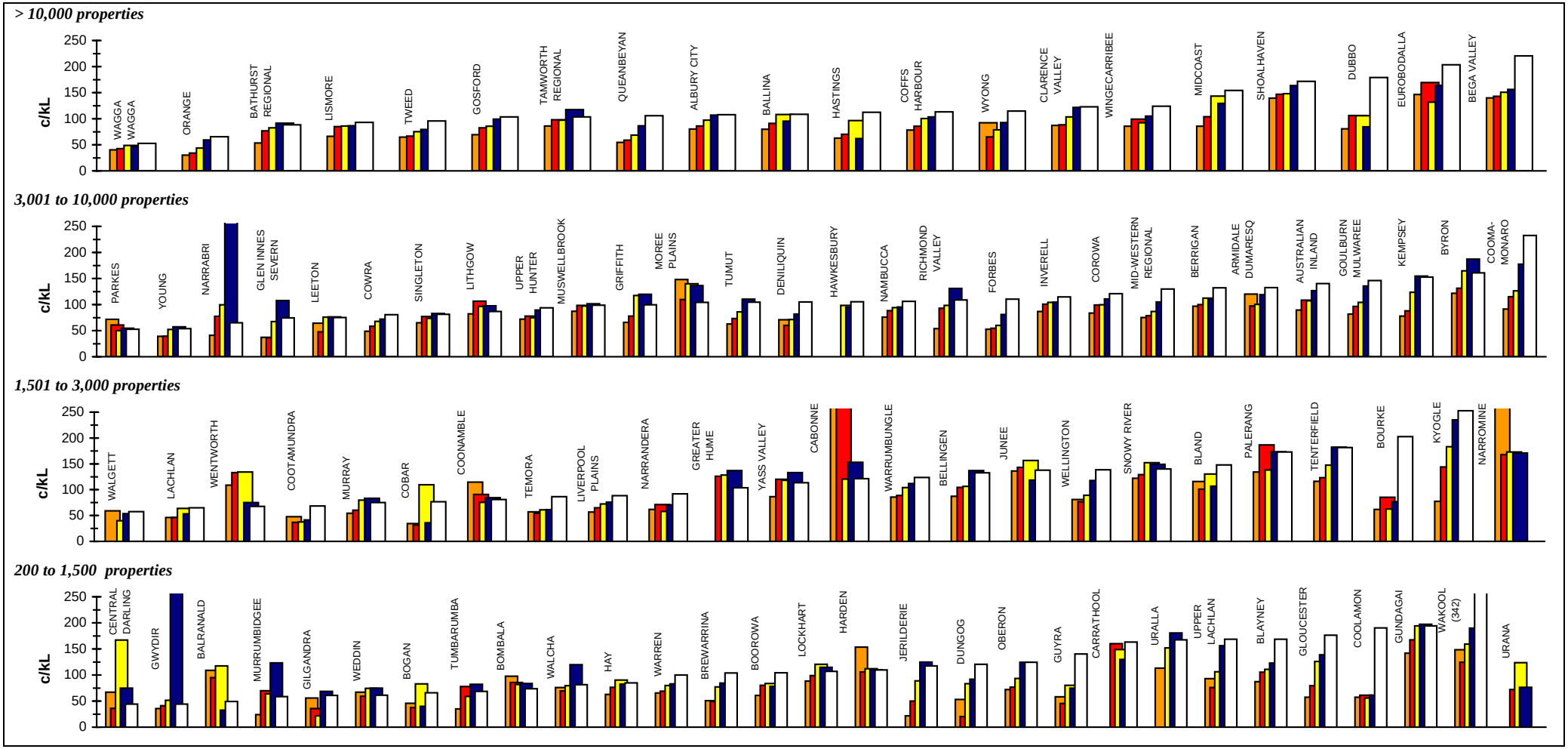


Parameter: $\frac{\text{Management Expenses (S1) + Total Operation and Maintenance Expenses (S2)}}{\text{[Length of Reticulation Mains (Q10a) + Length of Rising Mains (Q10b)] x 10}}$

Notes:

1. This figure shows ranked values of the sewerage operating cost (OMA - operation, maintenance and administration) per 100 km of main for 2003/04 for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the sewerage operating costs for the 27 LWUs shown ***range*** from about $385,000 to $2M per 100 km of main. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median sewerage operating cost is $1,130,000 per 100 km of sewer main.
3. For general notes see page 10.

76 Operating (OMA) Cost per kL – Sewerage



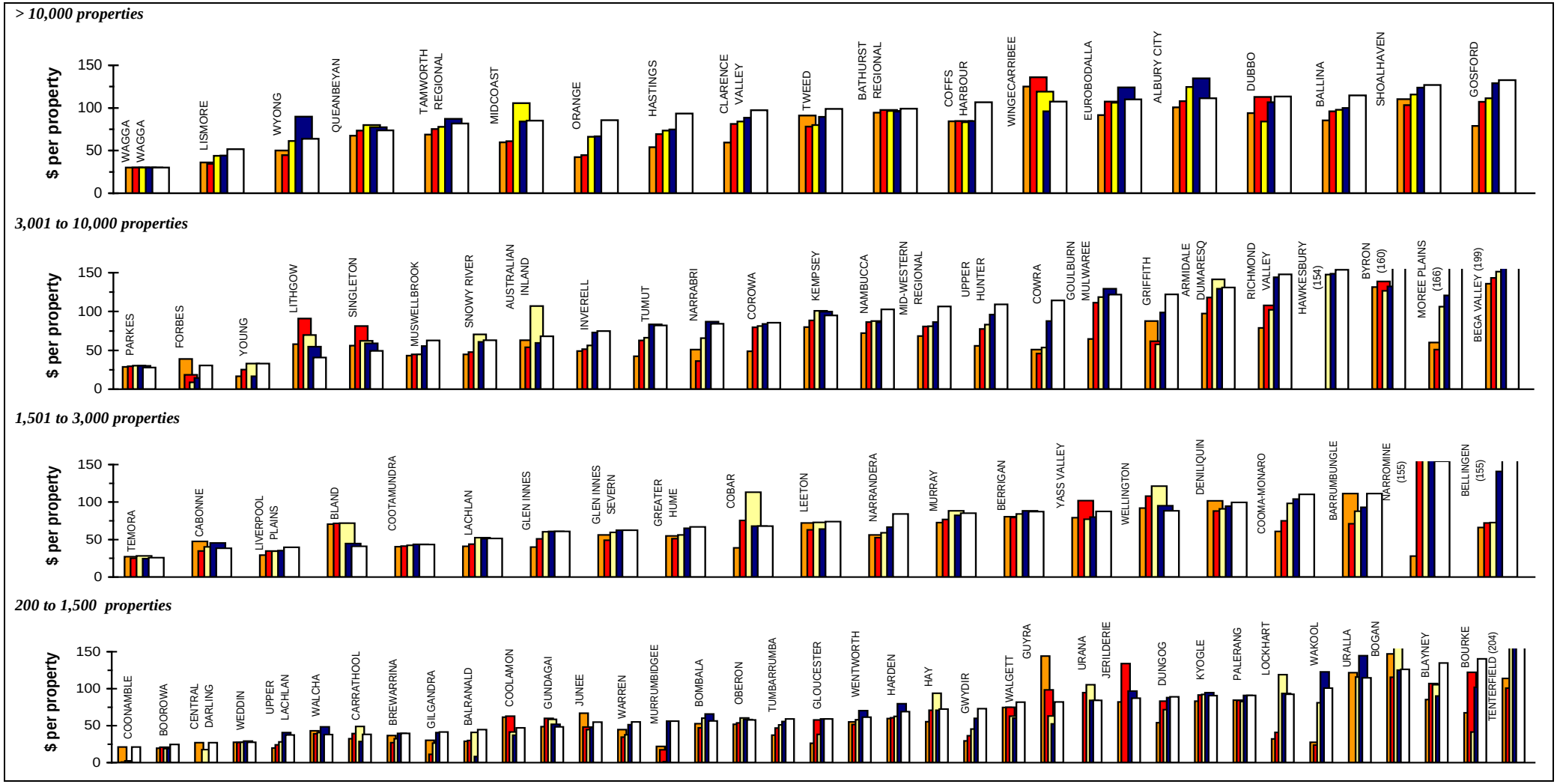
Parameter: [Management Expenses (S1) + Total Operation and Maintenance Expenses (S2)] / Volume of Sewage Receiving Secondary Treatment (Q41c) x 10

1999/00 2000/01 2001/02 2002/03 2003/04

Notes:

1. This figure shows ranked values of the sewerage operating cost (OMA - operation, maintenance and administration) per kL for 2003/04 for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the sewerage operating costs for the 28 LWUs shown ***range*** from about 53 c/kL to 233 c/kL. The LWU on the right did not report this indicator for 2003/04. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median sewerage operating cost is $109 c/kL.
3. For general notes see page 10.

77 Management Cost per Property – Sewerage



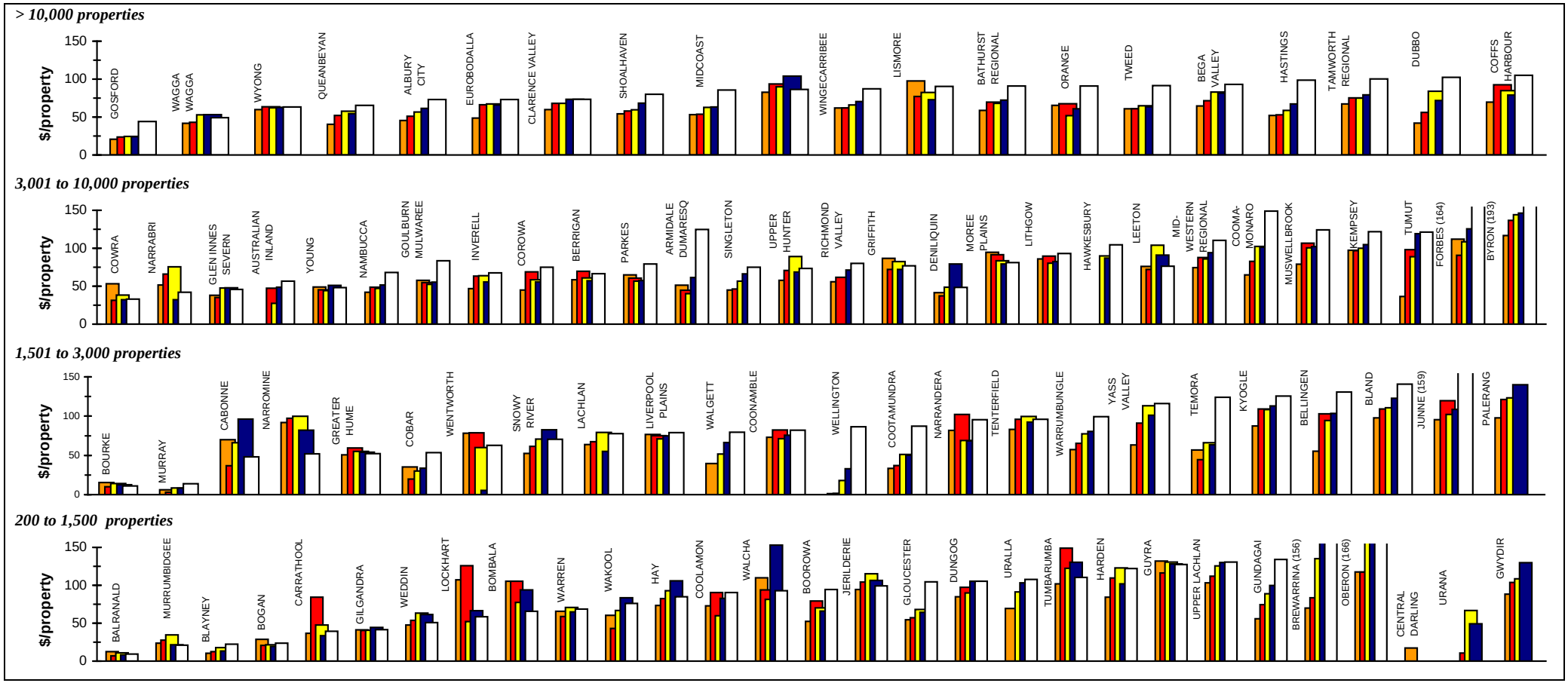
Parameter:

$$\frac{\text{Total Management Expenses (S1)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows the 2003/04 ranked values of the sewerage management cost per property for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the management costs for the 25 LWUs shown ***range*** from about ***$28 to $199 per*** connected property. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median management cost is $97 per connected property.
3. For general notes see page 10.

78 Treatment Cost – Sewerage



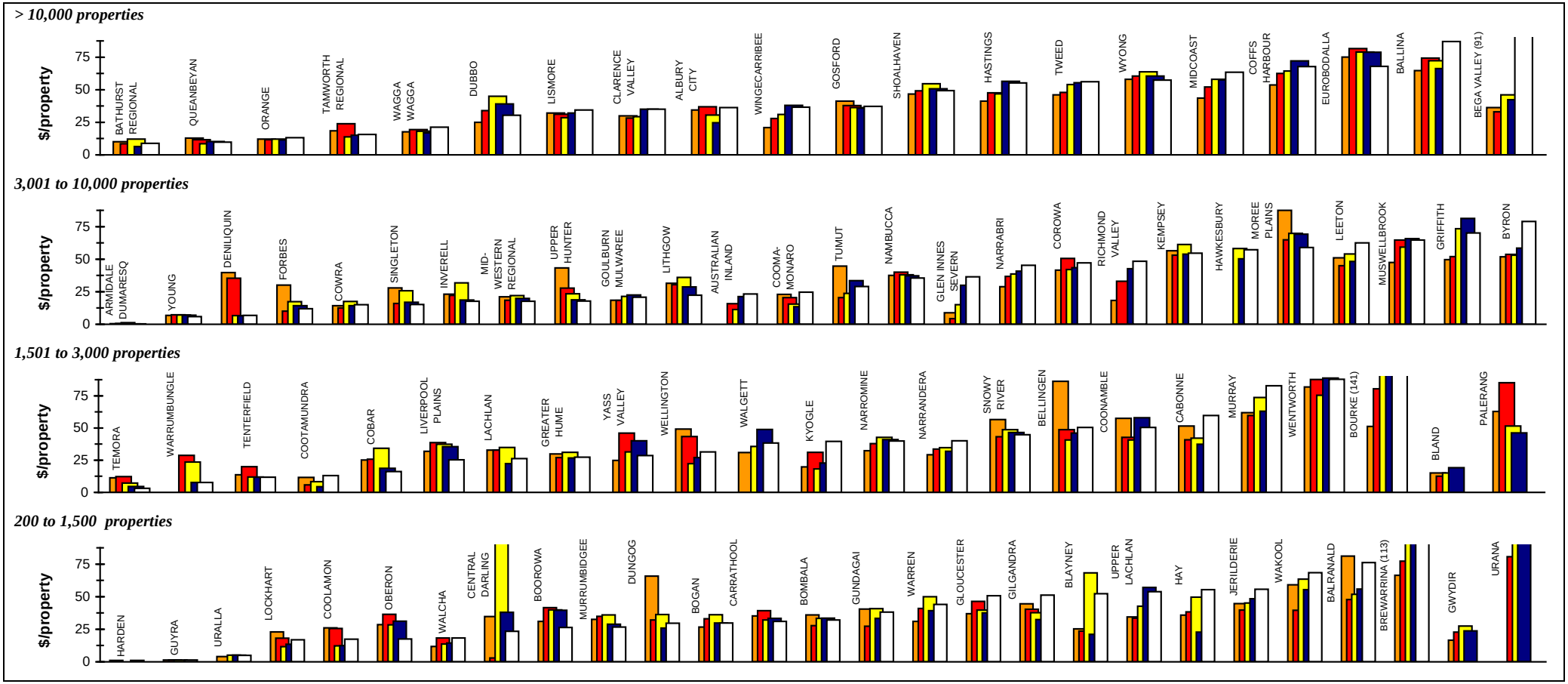
Parameter: Treatment Works Operation Expenses (S2f) + Chemical Cost (S2g) + Energy Cost (S2h) + Maintenance Expenses (S2k) / [No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment

1999/00 2000/01 2001/02 2002/03 2003/04

Notes:

1. This figure shows ranked values of the sewage treatment cost per property for 2003/04 for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the sewage treatment costs for the 28 LWUs shown ***range*** from about $33 to $110 per property. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median sewage treatment cost is $81 per connected property.
3. For general notes see page 10.

79 Pumping Cost – Sewerage



Parameter:

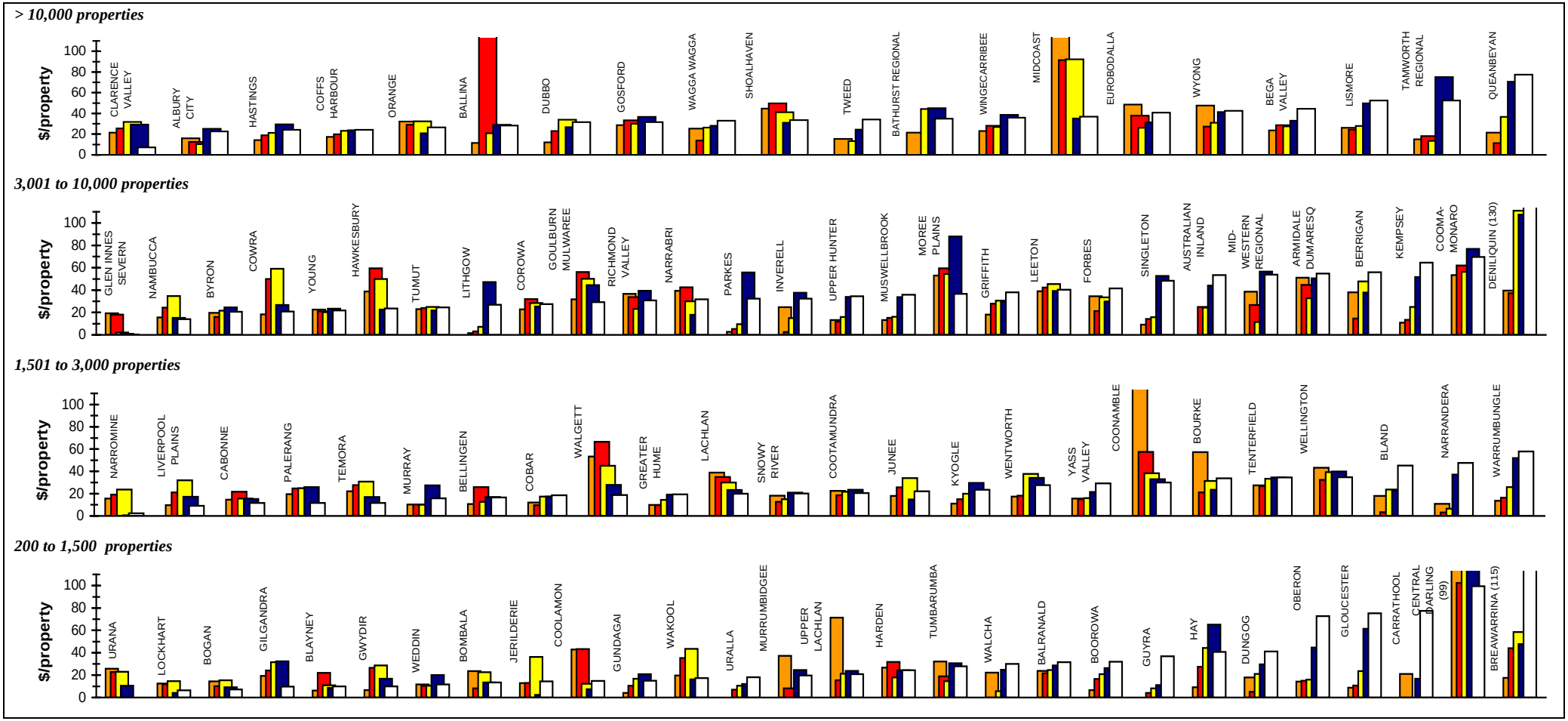
$$\frac{\text{Pumping Station Operation Cost (S2c) + Energy Cost (S2d) + Maintenance Cost (S2e)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

1999/00 2000/01 2001/02 2002/03 2003/04

Notes:

1. This figure shows ranked values of the sewage pumping cost per property for 2003/04 for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the sewage pumping costs for the 28 LWUs shown ***range*** from about $0.3 to $79 per connected property. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median sewage pumping cost is $38 per connected property.
3. For general notes see page 10.

80 Sewer Main Cost – Sewerage



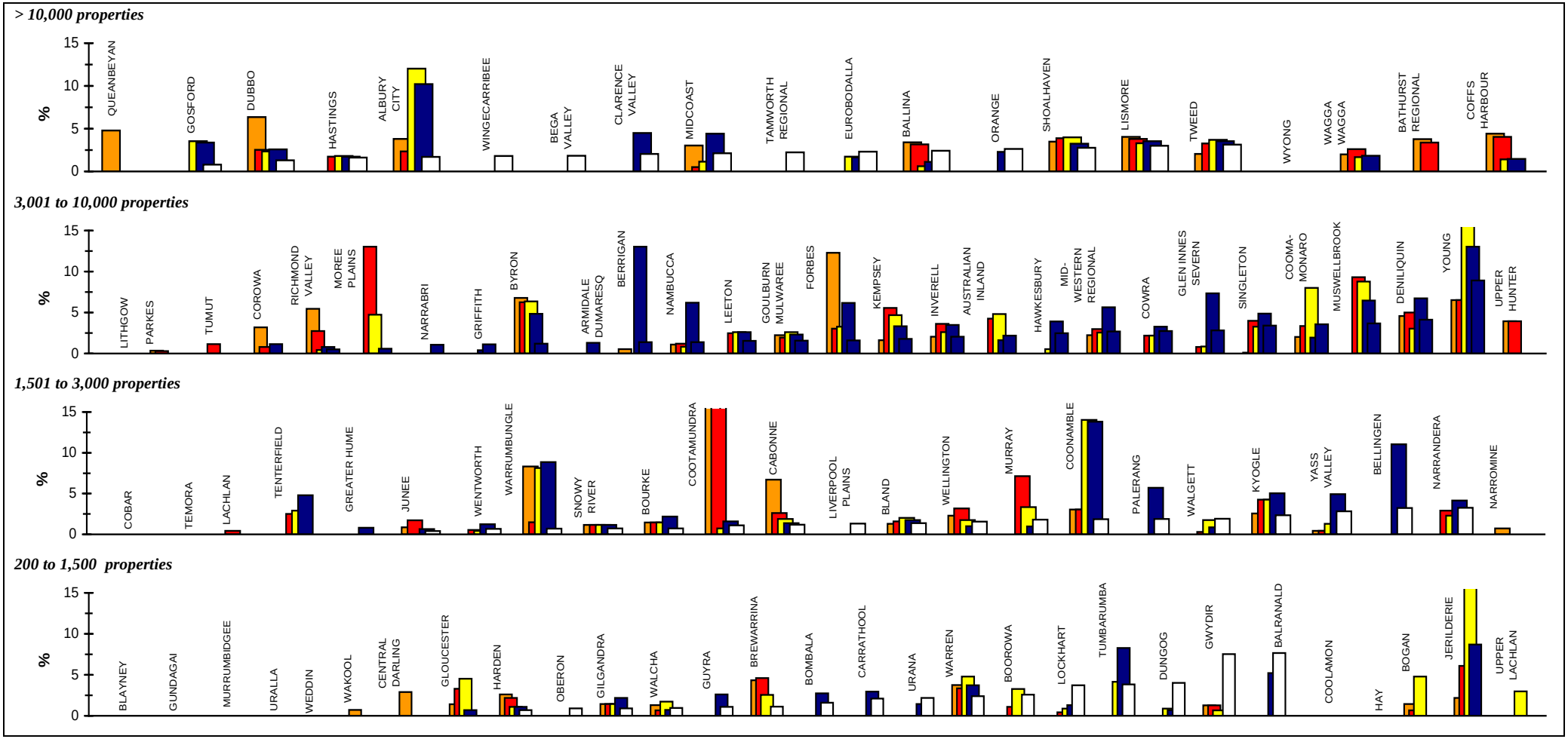
Parameter:

$$\frac{\text{Sewer Main Operation Cost (S2a) + Sewer Main Maintenance Cost (S2b)}}{\text{[No. of Residential Assessments (Q4a) + No. of Non-Residential Assessments (Q4b)] x No. of Connected Properties per Assessment}}$$

Notes:

1. This figure shows ranked values of the sewer main cost per property for 2003/04 for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the sewer main costs for the 28 LWUs shown ***range*** from about $14 to $130 per connected property. Results for the previous 4 years are also shown in Jan 2004$.
2. The Statewide median sewer main cost is $33 per connected property.
3. For general notes see page 10.

81 Total Days Lost – Sewerage



Parameter:

$$\frac{\text{Total Numbers of Days Lost in Year (Q30a) x 100}}{\text{Equivalent full time employees (Q29a) x available number of working days in year (ie. 230)}}$$

Notes:

1. This figure shows ranked values of the 2003/04 percentage of days lost for each Local Water Utility (LWU) in 4 groups based on the number of connected properties served – over 10,000, 3,001 to 10,000, 1,501 to 3,000 and 200 to 1,500. ***Each white bar represents one LWU.*** As an example, for the second graph (property range from 3,001 to 10,000), the percentage of days lost for the 28 LWUs shown ***range*** from about 0 to 9%. Results for the previous 4 years are also shown.
2. The Statewide median the percentage of days lost is 2.9%.
3. For general notes see page 10.

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11 TABLES

SUMMARY TABLES

This section contains the following Summary Tables:

Table 1 2003/04 NSW Water Supply Performance Indicators

Provides the 20 percentile, median and 80 percentile values of the key water supply performance indicators on a percentage of connected properties basis

Table 2 2003/04 NSW Sewerage Performance Indicators

Provides the 20 percentile, median and 80 percentile values of the key sewerage performance indicators on a percentage of connected properties basis

Table 3 Compliance with Best-Practice Management

Table 4 Trends in Statewide Performance Indicators – 1991 to 2003/04

Shows trends in water supply and sewerage key performance indicators over the last 13 years

Table 5 2003/04 NSW Water Utility Performance Summary

Provides an overview of each water utility's key water supply and sewerage performance indicators.

Table 1 : 2003/04 NSW Water Supply Performance Indicators

	20%	Median (50%)	80%
UTILITY CHARACTERISTICS			
Residential Assessments (% of total)	89	93	95
New Residential Dwellings Connected to Water Supply (%)	2.8	1.8	0.7
Properties Served per km of Main	54	33	23
Rainfall (% of average annual rainfall)	57	75	115
Total Water Supplied (at Master Meters - ML)	16100	6500	2410
Peak Week to Average Consumption (%)	111	120	147
Renewals Expenditure (% of current replacement cost of system assets)	0.0	0.0	0.0
Employees (employees per 1000 properties)	1.0	1.3	1.8
SOCIAL - *Charges/Bills*			
Water Usage Charge 2003/04 (c/kL)	100	76	50
Annual Water Allowance 2003/04 (kL/assessment)	0	0	0
Access Charge 2003/04 ($/assessment)	80	185	245
Typical Residential Bill 2003/04 ($/assessment)	225	330	430
Typical Developer Charge 2003/04 ($/equivalent tenement)	5000	2500	2200
Average Residential Bill ($/connected property)	210	325	400
Bill for Residential Customer using 200 kL/a ($/assessment)	245	315	400
SOCIAL - *Health*			
Urban Population without Reticulated Public Water Supply (%)	0.0	0.5	2.7
Physical and Chemical Water Quality Compliance (%)	100	100	95
Microbiological Water Quality Compliance (E.coli) (%)	100	100	100
Category 1 Public Health Incidents - Minor	0.0	0.0	0.0
Category 2 Public Health Incidents - Limited Effects	0.0	0.0	0.0
Category 3 Public Health Incidents - Major	0.00	0.00	0.00
Capital Investment on Improving Public Health ($/property)	14	3	0
SOCIAL - *Levels of Service*			
Water Quality Complaints (per 1000 properties)	1	5	9
Service Complaints (per 1000 properties)	3	9	30
Customer Interruption Frequency (per 1000 properties)	5	45	105
Average Duration of Interruption (hr)	2	2	3
Average Customer Outage Time (min)	0	6	16
Number of Main Breaks (per 100 km of main)	5	11	19
Drought Water Restrictions (% of time)	21	55	100
Total Days Lost (%)	1.5	2.5	4.2
ENVIRONMENTAL			
Average Annual Residential Consumption (kL/property)	187	215	305
Water Losses (including leakage) (%)	10	10	14
Energy Consumption (kWh/ML)	20	530	823
Renewable Energy Consumption (kWh/property)	0	0	0
Category 1 Environmental Incidents - Minor (per 1000 properties)	0.0	0.0	0.0
Category 2 Environmental Incidents - Limited Effects (per 1000 properties)	0.0	0.0	0.0
Category 3 Environmental Incidents - Major (per 1000 properties)	0.00	0.00	0.00
Capital Investment on Improving Environmental Performance ($/property)	10	2	0
ECONOMIC - *Financial*			
Residential Revenue from Usage Charges (% of residential bills)	69	55	38
Non-residential Revenue from Usage Charges (% of non-residential bills)	87	73	48
Economic Real Rate of Return (%)	4.5	2.7	0.5
Return on Assets (%)	0.5	2.9	4.3
Debt to Equity (%)	7	1	0
Interest Cover (%)	8300	1300	400
Loan Payment ($/property)	66	22	2
ECONOMIC - *Efficiency*			
Operating Cost (OMA) per 100 km of Main ($'000)	540	880	1080
Operating Cost (OMA) per property ($/property)	200	255	325
Operating Cost (OMA) per kL (c/kL)	40	73	90
Management Cost ($/property)	74	100	130
Treatment Cost ($/property)	14	27	85
Pumping Cost ($/property)	14	20	41
Energy Cost ($/property)	9	15	25
Water Main Cost ($/property)	25	43	61

Notes:

1. ***20%*** ***top 20% of properties***

   Median (50%) median of properties (Statewide)

   80% bottom 20% of properties

2. The above non-metropolitan NSW performance indicators are on a percentage of connected properties basis which is the most appropriate basis for judging Statewide performance by giving due weight to larger LWUs and reducing the effect of smaller LWUs (refer also to Notes 1 to 3 on page 119).

3. The performance indicators in this table and their grouping are consistent with the the body of the present report and the reports for each LWU on page 253 in Appendix C.

Table 2 : 2003/04 NSW Sewerage Performance Indicators

	20%	Median (50%)	80%
UTILITY CHARACTERISTICS			
Residential Connections (% of total)	90	93	94
New Residential Dwellings Connected to Sewerage (%)	3.2	1.6	0.7
Volume of Sewage Collected (ML)	11,200	4,400	1,250
Properties Served per km of Main	47	39	34
Renewals Expenditure (% of current replacement cost of system assets)	0.3	0.0	0.0
Employees (per 1000 properties)	1.2	1.5	1.8
SOCIAL - *Charges/Bills*			
Access Charge 2003/04 ($/assessment)	280	355	450
Typical Residential Bill 2003/04 ($/assessment)	300	375	480
Typical Developer Charge 2003/04 ($/equivalent tenement)	4,910	2,900	1,500
Average Residential Bill ($/connected property)	307	345	455
SOCIAL - *Health*			
Urban Population without Reticulated Sewerage Service (%)	0.2	2.5	10.0
Category 1 Public Health Incidents - Minor (per 1000 properties)	0.0	0.0	2.1
Category 2 Public Health Incidents - Limited Effects (per 1000 properties)	0.0	0.0	0.0
Category 3 Public Health Incidents - Major (per 1000 properties)	0.00	0.00	0.00
Capital Investment on Improving Public Health ($/property)	78	3	0
SOCIAL - *Levels of Service*			
Odour Complaints (per 1000 properties)	0.0	0.4	1.3
Service or Choke Complaints (per 1000 properties)	8	13	37
Customer Interruption Frequency (per 1000 properties)	0	1	35
Average Duration of Interruptions (hr)	1	2	2
Average Customer Outage Time (min)	0	2	6
Total Days Lost (%)	1.4	2.9	4.1
ENVIRONMENTAL			
Volume of Sewage Treated per property (kL/a)	190	240	290
Reclaimed Water (% of effluent reclaimed)	60	10	1
Biosolids Reuse (%)	100	100	72
Energy Consumption (kWh/ML)	420	640	820
Renewable Energy Consumption (kWh/property)	0	0	0
90 Percentile Licence Limits for Effluent Discharge:			
BOD *35 mg/L* **; SS** *40 mg/L* **; Total N** *25 mg/L* **; Total P** *5 mg/L*			
Compliance with BOD in Licence (%)	100	100	97
Compliance with SS in Licence (%)	100	98	90
Sewer Main Chokes and Collapses (per 100 km of main)	20	41	82
Sewer Overflows to the Environment (per 100 km of main)	2	7	35
Category 1 Environmental Incidents - Minor (per 1000 properties)	0.0	1.6	10
Category 2 Environmental Incidents - Limited Effects (per 1000 properties)	0.0	0.1	6
Category 3 Environmental Incidents - Major (per 1000 properties)	0.00	0.00	0.00
Capital Investment on Improving Environmental Performance ($/property)	105	25	0
ECONOMIC - *Financial*			
Revenue from Access Charges (% of total)	55	75	85
Revenue from Trade Waste Charges (% of total)	4.5	0.4	0.0
Revenue from Other (% of total)	0.0	0.0	0.0
Economic Real Rate of Return (%)	5.2	1.9	0.2
Return on Assets (%)	4.3	1.5	0.3
Debt to Equity (%)	11	3	0
Interest Cover (%)	1700	550	70
Loan Payment ($/property)	124	37	2
ECONOMIC - *Efficiency*			
Operating Cost (OMA) per 100 km of Main ($'000)	800	1130	1250
Operating Cost (OMA) per property ($/property)	230	265	320
Operating Cost (OMA) per kL (c/kL)	90	110	155
Management Cost ($/property)	65	95	130
Treatment Cost ($/property)	55	80	100
Pumping Cost ($/property)	21	38	57
Energy Cost ($/property)	10	15	25
Sewer Main Cost ($/property)	24	33	42

Notes:

1. ***20%*** ***top 20% of properties***
   Median (50%) median of properties (Statewide)
   80% bottom 20% of properties
2. The above non-metropolitan NSW performance indicators are on a percentage of connected properties basis which is the most appropriate basis for judging Statewide performance by giving due weight to larger LWUs and reducing the effect of smaller LWUs (refer also to Notes 1 to 3 on page 119).
3. The performance indicators in this table and their grouping are consistent with the body of the present report and the reports for each LWU on page 255 in Appendix C.

Table 3 - 2003/04 Best-Practice Management Compliance

	WATER UTILITY	WATER SUPPLY & SEWERAGE	WATER SUPPLY											SEWERAGE										
			OUTCOMES FOR 6 BPM CRITERIA											OUTCOMES FOR 6 BPM CRITERIA										
		TURNOVER $M	(1) Complete Current SBP & FP *(Yes/No)*	(2) Pricing with full cost-recovery, without significant cross subsidies *(Yes/No)*	(2a) Complying Residential Charges *(Yes/No)*	(2b) Complying non-Residential Charges *(Yes/No)*	(2c) DSP with Commercial Developer Charges (Item 2(e) in Table 1) *(Yes/No)*	(3) Complete performance Reporting Form by 31 October each year *(Yes/No)*	(4) Sound Water Conservation implemented *(Yes/No)*	(5) Sound Drought Management implemented (by June 2005) *(Yes/No)*	(6) Integrated Water Cycle Management Strategy (by June 2005) *(Yes/No)*	Compliance with required Criteria[5] *(Yes/No)*	Proposed Dividend from Surplus $'000	(1) Complete Current SBP & FP *(Yes/No)*	(2) Pricing with full cost-recovery, without significant cross subsidies *(Yes/No)*	(2a) Complying Residential Charges *(Yes/No)*	(2b) Complying non-Residential Charges *(Yes/No)*	(2c) Complying Trade Waste Fees & Charges *(Yes/No)*	(2d) DSP with commercial developer charges *(Yes/No)*	(2e) Liquid trade waste approvals & policy (By June 2005) *(Yes/No)*	(3) Complete performance Reporting Form by 31 October each year *(Yes/No)*	(4) Integrated Water Cycle Management Strategy (by June 2005) *(Yes/No)*	Compliance with required Criteria[6] *(Yes/No)*	Proposed Dividend from Surplus $'000
1	Albury	18.5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	
2	Armidale Dumaresq	6.8	No	No	Yes	No	Yes*	Yes	Yes	Yes	No	No		No	No	Yes	No	No	No	Yes	Yes	No	No	
3	Ballina (Reticulator)	14.8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	
4	Balranald (Dual Supply)	0.8	No	Yes	Yes	Yes	No	Yes	Yes	No	No	No		No	Yes	Yes	No	No	No	No	Yes	No	No	
5	Barraba	0.6	No	Yes	Yes	Yes	Yes*	Yes	No	No	No	No		No	Yes	Yes	No	Yes	Yes*	No	Yes	No	No	
6	Bathurst Regional	18.9	No	Yes	No	No	No	Yes	No	No	No	No		No	Yes	Yes	Yes	Yes	No	No	No	No	No	
7	Bega Valley (Unfiltered)	11.4	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No		No	No	Yes	Yes	No	Yes	No	Yes	No	No	
8	Bellingen (Unfiltered)	3.8	No	Yes	Yes	No	Yes	Yes	No	No	No	No		No	Yes	Yes	No	Yes	Yes	No	Yes	No	No	
9	Berrigan (Dual Supply)	3.2	Yes	Yes	No	No	Yes*	Yes	Yes	Yes	No	No		Yes	No	Yes	No	No	No	No	Yes	No	No	
10	Bingara	0.5	Yes											Yes		Yes								
11	Bland	0.8		**NO WS**										No	No	No	No	No	No	No	Yes	No	No	
12	Blayney	1.0		**NO WS**										Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No	
13	Bogan	1.4	No	No	Yes	No	No	Yes	No	Yes	No	No		No	No	No	No	No	No	No	Yes	No	No	
14	Bombala	0.8	No	No	No	No	No	Yes	Yes	Yes	No	No		Yes	No	Yes	No	No	Yes	No	No	No	No	
15	Boorowa	0.5	No	Yes	Yes	Yes	Yes[e]	No	No	No	No	No		No	No	Yes	No	No	Yes[e]	No	No	No	No	
16	Bourke (Dual Supply)	1.3	No	No	No	No	No	No	Yes	Yes	No	No		No	No	Yes	No	No	No	No	Yes	Yes	No	
17	Brewarrina	0.7	No	No	No	No	No	Yes	No	No	No	No		No	No	No	No	No	No	No	Yes	No	No	
18	Australian Inland	14.0	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes	Yes	Yes		Yes	No	Yes	Yes	No	Yes[e]	No	Yes	Yes	No	
19	Byron (Reticulator)	14.0	No	Yes	Yes	Yes	Yes*	Yes	No	No	No	No		No	Yes	Yes	No	Yes	Yes*	No	Yes	No	No	
20	Cabonne	2.1	Yes	Yes	Yes	No	No	Yes	No	No	No	No		Yes	No	No	No	No	No	No	Yes	No	No	
21	Carrathool	1.1	No	Yes	No	No	No	No	No	No	No	No		No	No	Yes	No	No	No	No	No	No	No	
22	Central Darling	0.7	No	Yes	Yes	No	No	Yes	No	Yes	Yes	No		No	No	Yes	No	No		No	Yes	Yes	No	
23	Central Tablelands	3.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes			**NO SGE**									
24	Cobar	1.9	No	No	Yes	No	No	No	No	No	No	No		No	No	Yes	No		No	Yes	No	No	No	
24-A	Cobar WB														**NO SGE**									
25	Coffs Harbour (Unfiltered)	**35.7**	No	No	Yes	No	Yes*	No	No	No	No	No		No	No	Yes	No		Yes*	Yes	No	No	No	
26	Coolah	0.8			Yes			Yes							Yes	Yes					Yes			
27	Coolamon	0.4		**No WS**										No	Yes	Yes	No	No	No	No	Yes	No	No	
28	Cooma-Monaro	3.8	Yes	Yes	Yes	No	No	Yes	No	No	No	No		Yes	Yes	Yes	No	Yes	No	No	Yes	No	No	
29	Coonabarabran	***1.9***						Yes	No	No						Yes					Yes			
30	Coonamble (Groundwater)	1.2	No	No	No	No	No	Yes	No	No	No	No		No	No	No	No	No	No	No	Yes	No	No	
31	Cootamundra (Reticulator)	1.9	No	No	No	No	No	Yes	No	No	No	No		No	No	No	No	No	No	No	Yes	No	No	
32	Copmanhurst (Unfiltered)	0.4		**NO WS**										No	Yes	No	No	No	No	No	Yes	No	No	
33	Corowa	2.9	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No		Yes	Yes	Yes	No	No	No	No	Yes	No	No	
34	Cowra	4.3	No	No	Yes	No	Yes*	Yes	Yes	Yes	No	No		No	Yes	Yes	No	Yes	No	No	Yes	No	No	
35	Crookwell	1.3		Yes	Yes			Yes								Yes					Yes			
36	Culcairn (Groundwater)	0.5	Yes	No	No	No	No	Yes	No	No	No	No		Yes	No	No	No	No	No	No	No	No	No	
37	Deniliquin	3.7	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No		Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	
38	Dubbo	17.2	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No		Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	No	
39	Dungog (Unfiltered)	1.8	Yes	Yes	Yes	No	Yes*	Yes	Yes	No	No	No		Yes	Yes	Yes	No	No	No	No	Yes	No	No	
40	Eurobodalla (Unfiltered)	22.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	500	No	Yes	Yes	No	No	Yes	No	Yes	Yes	No	
41	Fish River WS (Unfiltered, Bu	***5.8***	Yes	Yes	Yes			Yes	No	Yes					**NO SGE**									
42	Forbes	3.5	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No		Yes	No	No	No	Yes	No	No	Yes	No	No	
43	Gilgandra	1.1	No	Yes	No	No	No	No	No	No	No	No		No	No	No	No	Yes	No	No	No	No	No	

Table 3 - 2003/04 Best-Practice Management Compliance

	WATER UTILITY	WATER SUPPLY & SEWERAGE	WATER SUPPLY											SEWERAGE										
			OUTCOMES FOR 6 BPM CRITERIA											OUTCOMES FOR 6 BPM CRITERIA										
		TURNOVER $M	(1) Complete Current SBP & FP *(Yes/No)*	(2) Pricing with full cost-recovery, without significant cross subsidies *(Yes/No)*	(2a) Complying Residential Charges *(Yes/No)*	(2b) Complying non-Residential Charges *(Yes/No)*	(2c) DSP with Commercial Developer Charges (Item 2(e) in Table 1) *(Yes/No)*	(3) Complete performance Reporting Form by 31 October each year *(Yes/No)*	(4) Sound Water Conservation implemented *(Yes/No)*	(5) Sound Drought Management implemented (by June 2005) *(Yes/No)*	(6) Integrated Water Cycle Management Strategy (by June 2005) *(Yes/No)*	Compliance with required Criteria[5] *(Yes/No)*	Proposed Dividend from Surplus $'000	(1) Complete Current SBP & FP *(Yes/No)*	(2) Pricing with full cost-recovery, without significant cross subsidies *(Yes/No)*	(2a) Complying Residential Charges *(Yes/No)*	(2b) Complying non-Residential Charges *(Yes/No)*	(2c) Complying Trade Waste Fees & Charges *(Yes/No)*	(2d) DSP with commercial developer charges *(Yes/No)*	(2e) Liquid trade waste approvals & policy (By June 2005) *(Yes/No)*	(3) Complete performance Reporting Form by 31 October each year *(Yes/No)*	(4) Integrated Water Cycle Management Strategy (by June 2005) *(Yes/No)*	Compliance with required Criteria[6] *(Yes/No)*	Proposed Dividend from Surplus $'000
44	Glen Innes	1.9			Yes			Yes							Yes	Yes					Yes			
45	Gloucester	1.5	Yes	No	Yes	No	Yes	Yes	Yes	No	No	No		Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	
46	Goldenfields(bulk) (Bulk Supp	6.7	No				Yes*	Yes	No	No	No	No			**NO SGE**									
47	Goldenfields (Reticulator)	6.1	No	No	Yes	No	Yes*	Yes	No	No	No	No			**NO SGE**									
48	Goldenfields (Combined)	12.8	No	No	Yes	No	Yes*	Yes	No	No	No	No			**NO SGE**									
49	Gosford	46.2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	
50	Goulburn	9.1	No	Yes	No	No	Yes*	No	No	No	No	No			Yes	Yes		Yes	Yes*					
51	Grafton	***5.5***	Yes		Yes			Yes	No	Yes						Yes					Yes			
52	Griffith	9.1	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No		Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	No	
53	Gundagai	0.7	No	Yes	Yes	Yes	No	No	No	No	No	No		No	No	No	No	Yes	No	No	No	No	No	
54	Gunnedah (Groundwater)	3.0	Yes	No	No	No	Yes	Yes	Yes	No	No	No		Yes	Yes	Yes	No	No	Yes	No	Yes	No	No	
55	Gunning	0.3		Yes			Yes*	Yes								Yes					Yes			
56	Guyra	1.0	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No		Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	
57	Harden (Reticulator)	1.5	No	No	No	No	No	Yes	No	No	No	No		No	No	Yes	No	No	No	No	Yes	No	No	
58	Hastings (Unfiltered)	38.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	802	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	683
58-A	Hawkesbury	3.8		**NO WS**										No	No	Yes	No	Yes	Yes*	No	No	No	No	
59	Hay (Dual Supply)	1.1	Yes	Yes	Yes	Yes	Yes[e]	Yes	Yes	Yes	Yes	Yes		No	No	Yes	No	No	Yes[e]	No	No	No	No	
60	Holbrook	0.3		**NO WS**										No	No	No	No	No	No	No	No	No	No	
61	Hume	1.7						Yes								Yes					Yes			
62	Hunter Water	162.0																						
63	Inverell	4.2	Yes	Yes	Yes	No	No	Yes	No	No	No	No		Yes	No	Yes	No	Yes	No	No	Yes	No	No	
64	Jerilderie (Dual Supply)	0.6	No	No	No	No	No	Yes	No	No	No	No		No	No	No	No	No	No	No	Yes	No	No	
65	Junee	0.5		**NO WS**										No	No	Yes	No	Yes	No	No	No	No	No	
66	Kempsey (Groundwater)	16.2	No	Yes	Yes	No	Yes*	Yes	No	No	Yes	No		No	No	Yes	No	No	Yes*	Yes	Yes	Yes	No	
67	Kyogle	1.7	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No		Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	
68	Lachlan	2.4	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No		Yes	No	Yes	No	No	No	Yes	Yes	Yes	No	
69	Leeton	4.3	No	Yes	Yes	Yes	Yes*	Yes	No	No	No	No		No	No		No	Yes	Yes*	No	Yes	No	No	
70	Lismore (Reticulator)	11.5	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No		Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	
71	Lithgow	5.7	Yes	Yes	Yes	No	No	Yes	No	No	No	No		Yes	No	No	No	Yes	No	No	No	No	No	
72	Lockhart	0.3		**NO WS**										Yes	No	No	No	No	No	No	No	No	No	
73	North Coast Water (Unfiltered	16.9	No	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	No	No			**NO SGE**									
74	Maclean	5.2		**NO WS**										Yes	Yes	Yes			Yes		Yes			
75	Manilla	1.0	No	Yes	No	No	Yes*	Yes	No	No	No	No		No	Yes	No	No	No	Yes*	No	Yes	No	No	
76	Merriwa	0.5			Yes											Yes								
77	MidCoast (Manning - Unfilter																							
78	MidCoast (Great Lakes - Unfil																							
79	MidCoast (Combined - Unfilte	35.0	No	Yes	Yes	Yes	Yes*	Yes	Yes	Yes	No	Yes		No	Yes	Yes	Yes	Yes	Yes*	Yes	Yes	No	Yes	
80	Moree Plains	5.5	No	Yes	Yes	Yes	Yes*	Yes	No	No	No	No		No	Yes	No	No	Yes	Yes*	No	Yes	No	No	
81	Mudgee (Unfiltered)	5.7	Yes	Yes	Yes	No	Yes*	Yes	Yes	Yes	No	No		No	Yes	No	No	No	No	Yes	Yes	No	No	
82	Mulwaree	0.7	No	No	No	No	No	No	No	No	No	No		No	No	No	No	No	No	No	No	No	No	
83	Murray (Dual Supply)	2.4	No	Yes	Yes	No	No	Yes	No	No	No	No		No	Yes	No	No	Yes	No	No	Yes	No	No	
84	Murrumbidgee	0.6	No	Yes	Yes	No	No	Yes	No	No	No	No		No	No	No	No	No	No	No	Yes	No	No	
85	Murrurundi (Unfiltered)	0.7		Yes				Yes							Yes	Yes					Yes			
86	Muswellbrook	6.0	No	Yes	Yes	Yes	No	Yes	No	No	No	No		No	Yes	Yes	No	Yes	Yes*	No	Yes	No	No	
87	Nambucca	5.7	Yes	Yes	Yes	No	Yes*	Yes	Yes	Yes	No	No		Yes	Yes	Yes	No	No	Yes*	Yes	Yes	No	No	

Table 3 - 2003/04 Best-Practice Management Compliance

	WATER UTILITY	WATER SUPPLY & SEWERAGE	WATER SUPPLY											SEWERAGE										
			OUTCOMES FOR 6 BPM CRITERIA											OUTCOMES FOR 6 BPM CRITERIA										
		TURNOVER $M	(1) Complete Current SBP & FP *(Yes/No)*	(2) Pricing with full cost-recovery, without significant cross subsidies *(Yes/No)*	(2a) Complying Residential Charges *(Yes/No)*	(2b) Complying non-Residential Charges *(Yes/No)*	(2c) DSP with Commercial Developer Charges (Item 2(e) in Table 1) *(Yes/No)*	(3) Complete performance Reporting Form by 31 October each year *(Yes/No)*	(4) Sound Water Conservation implemented *(Yes/No)*	(5) Sound Drought Management implemented (by June 2005) *(Yes/No)*	(6) Integrated Water Cycle Management Strategy (by June 2005) *(Yes/No)*	Compliance with required Criteria[5] *(Yes/No)*	Proposed Dividend from Surplus $'000	(1) Complete Current SBP & FP *(Yes/No)*	(2) Pricing with full cost-recovery, without significant cross subsidies *(Yes/No)*	(2a) Complying Residential Charges *(Yes/No)*	(2b) Complying non-Residential Charges *(Yes/No)*	(2c) Complying Trade Waste Fees & Charges *(Yes/No)*	(2d) DSP with commercial developer charges *(Yes/No)*	(2e) Liquid trade waste approvals & policy (By June 2005) *(Yes/No)*	(3) Complete performance Reporting Form by 31 October each year *(Yes/No)*	(4) Integrated Water Cycle Management Strategy (by June 2005) *(Yes/No)*	Compliance with required Criteria[6] *(Yes/No)*	Proposed Dividend from Surplus $'000
88	Narrabri (Groundwater)	3.1	No	Yes	No	No	No	Yes	No	No	No	No		No	No	No	No	Yes	No	Yes	Yes	No	No	
89	Narrandera (Groundwater)	2.2	No	Yes	Yes	No	No	Yes	No	Yes	Yes	No		No	No	No	No	No	No	No	Yes	Yes	No	
90	Narromine (Groundwater)	1.9	No	Yes	Yes	No	No	Yes	No	No	No	No		No	No	No	No	No	No	No	Yes	No	No	
91	Nundle	0.1			No				No	No					**NO SGE**									
92	Oberon (Unfiltered, Reticulato	1.5	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No		No	No	No	No	Yes	Yes	No	Yes	No	No	
93	Orange	17.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	
94	Parkes	7.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	No	
95	Parry	1.5	Yes	Yes	No	No	Yes*	Yes	No	No	No	No		Yes	Yes	Yes	No	No	Yes*	No	Yes	No	No	
96	Pristine Waters (Unfiltered)	1.9	No	No	No	No	No	Yes	No	No	No	No		No	Yes	Yes	No	No	No	No	Yes	No	No	
97	Queanbeyan (Reticulator)	14.6	Yes	Yes	Yes	Yes	Yes*	Yes			No	Yes	22	Yes	Yes	Yes	Yes	No	Yes*	No	Yes	No	No	143
98	Quirindi	0.9	No	No		No	No	No			No	No		No	Yes	Yes	No	No	No	No	No	No	No	
99	Richmond Valley (Reticulator)	6.9	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No		Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	
100	Riverina (Groundwater)	15.6	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No			**NO SGE**									
101	Rous (Bulk Supplier)	9.8	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No			**NO SGE**									
102	Rylstone	1.2						Yes								Yes					Yes			
103	Scone (Unfiltered)	3.0		Yes	Yes			Yes							Yes	Yes					Yes			
104	Severn	0.2			Yes										Yes	Yes								
105	Shoalhaven	44.2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	1,350	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	1,159
106	Singleton	8.6	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No		Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No	
107	Snowy River (Unfiltered)	3.0	No	Yes	Yes	No	No	No	No	No	No	No		No	Yes	Yes	No	No	No	No	No	No	No	
108	Sydney Water	1,425.0																						
109	Tallaganda	0.5	No	Yes	No	No	No	Yes	No	No	No	No		No	Yes	No	No	No	No	No	Yes	No	No	
110	Tamworth	16.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	405	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	391
111	Temora	0.4		**NO WS**										Yes	No	No	No	No	No	No	No	No	No	
112	Tenterfield	1.6	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No		Yes	Yes	Yes	No	No	Yes	No	Yes	No	No	
113	Tumbarumba	1.1	Yes	Yes	Yes	No	Yes[e]	Yes	Yes	No	No	No		Yes	No	No	No	No	Yes[e]	No	Yes	No	No	
114	Tumut	4.6	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No		No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	
115	Tweed	35.3	Yes[+]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes[+]	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	
116	Uralla	1.0	No	No	Yes	No	No	Yes	No	No	No	No		No	Yes	Yes	No	Yes	No	No	Yes	No	No	
116-1	Urana	0.2		**NO WS**										No	No	Yes	No	No	Yes*	No	Yes	No	No	
117	Wagga Wagga	10.7		**NO WS**										Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	No	
118	Wakool	1.7	Yes	Yes		No	No	Yes	No	No	Yes	No		Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	
119	Walcha	0.7	No	No	Yes	No	No	Yes	No	No	No	No		No	No	Yes	No	No	No	No	Yes	No	No	
120	Walgett (Dual Supply)	1.8	No	No	No	No	No	No	No	No	No	No		No	No	Yes	No	No	No	No	No	No	No	
121	Warren (Dual Supply)	1.0	No	Yes	No	No	No	Yes	Yes	Yes	Yes	No		No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	
122	Weddin	0.2		**NO WS**										No	No	No	No	No	No	No	No	No	No	
123	Wellington	3.0	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No		No	No	No	No	No	No	Yes	Yes	Yes	No	
124	Wentworth (Dual Supply)	2.4	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No		No	Yes	Yes	No	No	Yes	No	Yes	No	No	
125	Wingecarribee	18.0	No	Yes	Yes	Yes	Yes*	Yes	No	No	No	No		Yes	Yes	Yes	No	Yes	Yes*	No	Yes	No	No	
126	Wyong	51.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
127	Yallaroi (Unfiltered)	0.6						Yes								Yes					Yes			
128	Yarrowlumla (Unfiltered)	***1.4***						Yes								Yes					Yes			
129	Yass Valley	3.3	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No		Yes	No	No	No	No	Yes	Yes	Yes	Yes	No	
130	Young (Reticulator)	3.4	Yes	Yes	No	No	No	Yes	No	No	No	No		Yes	Yes	Yes	No	Yes		No	Yes	No	No	

Table 3 - 2003/04 Best-Practice Management Compliance

	WATER UTILITY	WATER SUPPLY & SEWERAGE	WATER SUPPLY											SEWERAGE										
			OUTCOMES FOR 6 BPM CRITERIA											OUTCOMES FOR 6 BPM CRITERIA										
		TURNOVER $M	(1) Complete Current SBP & FP *(Yes/No)*	(2) Pricing with full cost-recovery, without significant cross subsidies *(Yes/No)*	(2a) Complying Residential Charges *(Yes/No)*	(2b) Complying non-Residential Charges *(Yes/No)*	(2c) DSP with Commercial Developer Charges (Item 2(e) in Table 1) *(Yes/No)*	(3) Complete performance Reporting Form by 31 October each year *(Yes/No)*	(4) Sound Water Conservation implemented *(Yes/No)*	(5) Sound Drought Management implemented (by June 2005) *(Yes/No)*	(6) Integrated Water Cycle Management Strategy (by June 2005) *(Yes/No)*	Compliance with required Criteria[5] *(Yes/No)*	Proposed Dividend from Surplus $'000	(1) Complete Current SBP & FP *(Yes/No)*	(2) Pricing with full cost-recovery, without significant cross subsidies *(Yes/No)*	(2a) Complying Residential Charges *(Yes/No)*	(2b) Complying non-Residential Charges *(Yes/No)*	(2c) Complying Trade Waste Fees & Charges *(Yes/No)*	(2d) DSP with commercial developer charges *(Yes/No)*	(2e) Liquid trade waste approvals & policy (By June 2005) *(Yes/No)*	(3) Complete performance Reporting Form by 31 October each year *(Yes/No)*	(4) Integrated Water Cycle Management Strategy (by June 2005) *(Yes/No)*	Compliance with required Criteria[6] *(Yes/No)*	Proposed Dividend from Surplus $'000
131	Albury City	18.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	
132	Clarence Valley	29.4	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No		No	No	Yes	No	No	No	No	Yes	No	No	
133	Coffs Harbour (Unfiltered)	36.2	No	Yes	No	No	Yes	Yes	No	No	No	No		No	Yes	No	No	Yes	No	No	Yes	No	No	
134	Corowa	3.8	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No		Yes	Yes	Yes	No	No	No	No	Yes	No	No	
135	Glen Innes Severn	2.1	No	No	Yes	No	Yes	Yes	No	No	No	No		No	Yes	Yes	No	No	No	No	Yes	No	No	
136	Goulburn Mulwaree	9.8	No	Yes	No	No	No	No	No	No	No	No		No	Yes	Yes	No	Yes	No	No	No	No	No	
137	Greater Hume	1.5	No	No	No	No	Yes	Yes	No	No	No	No		Yes	No	No	No	No	No	No	No	No	No	
138	Gwydir	1.1	Yes	No	No	No	No	No	No	No	No	No		Yes	No	Yes	No	No	No	No	No	No	No	
139	Liverpool Plains	1.7	No	No	No	No	No	No	No	No	No	No		No	Yes	Yes	No	No	No	No	No	No	No	
140	Mid-Western Regional	6.9	Yes	Yes	No	No	No	Yes	Yes	Yes	No	No		No	Yes	No	No	No	No	Yes	Yes	No	No	
141	Palerang	1.9	No	No	No	No	Yes	Yes	No	No	No	No		No	No	Yes	No	No	No	No	Yes	No	No	
142	Tamworth Regional	18.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	
143	Upper Hunter	4.1	No	Yes	Yes	No	No	Yes	No	No	No	No		No	Yes	Yes	No	No	No	No	Yes	No	No	
144	Upper Lachlan	1.6	No	Yes	Yes	No	Yes	Yes	No	No	No	No		No	No	Yes	No	No	No	No	Yes	No	No	
145	Warrumbungle	2.7	No	No	No	No	Yes	Yes	No	No	No	No		No	No	Yes	No	No	No	No	Yes	No	No	
	TOTAL 'YES' for large LWUs (>$10M turnover)[2]		16	26	27	20	29	30	19	18	10	10	5	16	20	23	10	17	20	13	22	9	5	4
	% of Large LWUs (26 WS LWUs and 23 SGE LWUs)		62%	100%	100%	77%	100%	100%	73%	69%	38%	38%	19%	70%	87%	100%	43%	74%	87%	57%	96%	39%	22%	17%
	TOTAL 'YES' for remainder of LWUs (<$10M turnover)[2]		32	52	53	17	28	69	20	21	13	5	0	30	40	61	1	27	26	16	72	13	1	0
	% of Remainder (87 WS LWUs and 95 SGE LWUs)		37%	60%	61%	20%	32%	79%	23%	24%	15%	6%	0%	32%	42%	64%	1%	28%	27%	17%	76%	14%	1%	0%
	TOTAL 'YES' for all LWUs		48	78	80	37	57	99	39	39	23	15	5	46	60	84	11	44	46	29	94	22	6	4
	%		42%	69%	71%	33%	50%	88%	35%	35%	20%	13%	4%	39%	51%	71%	9%	37%	39%	25%	80%	19%	5%	3%

The totals below are calculated for LWUs 1 to 130 (ie. Totals exclude the amalgamated LWUs 131 to 145)

Notes:

1 The reported compliances for each LWU are on the basis of Notes 2 or 3 of the Special Purpose Financial Reports of its 2003/04 Annual Financial Statements, supplemented by other data provided to DEUS by the LWU.

2 For LWUs with water supply only or sewerage only, the relevant turnover is $5M.

3 The turnover for LWUs responsible for water supply or sewerage only is shown left justified above.

4 Where an LWU has not yet reported its turnover for 2003/04, the turnover reported for 2002/03 is shown in italics bold above.

5 The required criteria for water supply in 2003/04 are (1), (2), (2a), (2b), (2c), (3) and (4).

6 The required criteria for sewerage in 2003/04 are (1), (2), (2a), (2b), (2c), (2d) and (3).

7 Seven LWUs have amalgamated with minor parts of other LWUs but their numbers of water supply and sewerage assessments were unaffected. These are: Bathurst Regional, Cooma-Monaro, Queanbeyan, Lithgow, Richmond Valley, Tumut and Yass Valley.

8 Thirty two LWUs have amalgamated with other LWUs resulting in a change in the number of water supply and sewerage assessments. These LWUs have generally also changed their name and are shown at LWU numbers 131 to 145.

9 Compliance with Best-Practice Management for amalgamated LWUs (LWU numbers 131 to 145) is based on the compliance outcomes of the major constituent LWU.

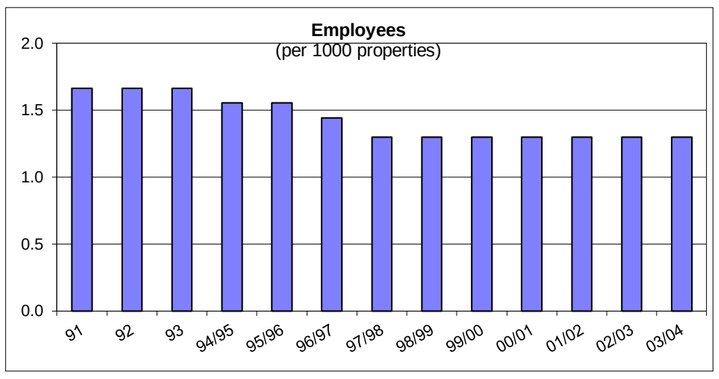
10 Yes[+] in column (1) indicates that the LWU's strategic business plan and financial plan need to be updated.

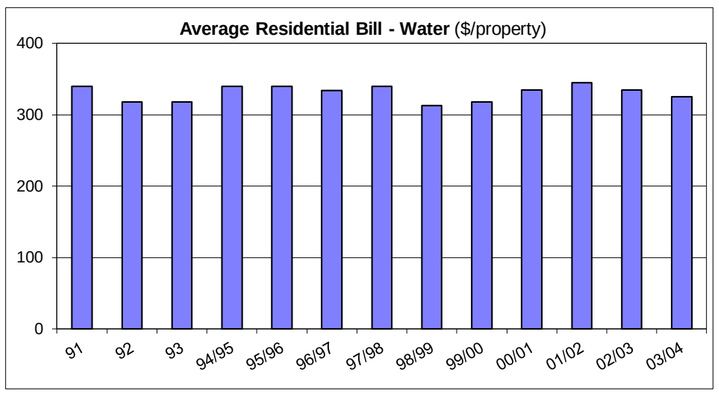
11 Yes* in column 2c for water supply or column 2d for sewerage indicates that the LWU has commercial developer charges in place but is yet to complete its complying Development Servicing Plan (DSP).

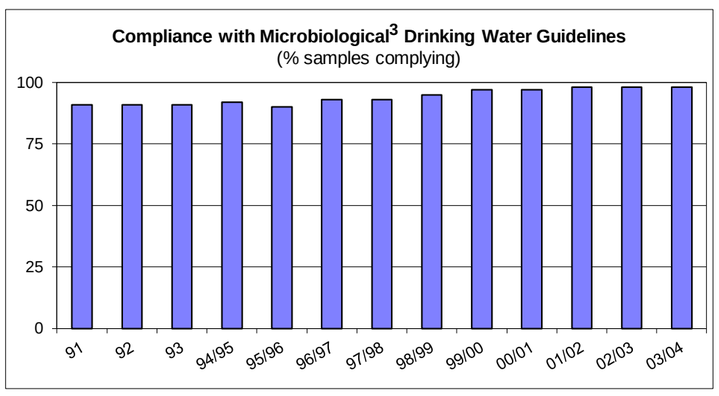
Yes[e] in these columns indicates the LWU is exempt from the requirement to prepare a DSP due to low growth (under 5 lots/a).

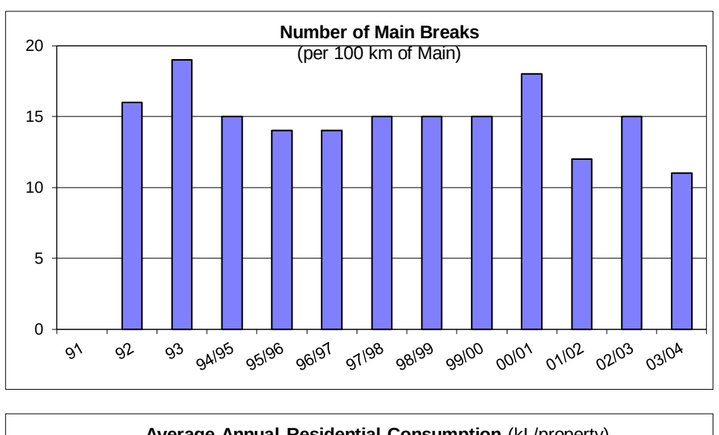
Table 4 - Trends in Statewide Performance Indicators - 1991 to 2003/04

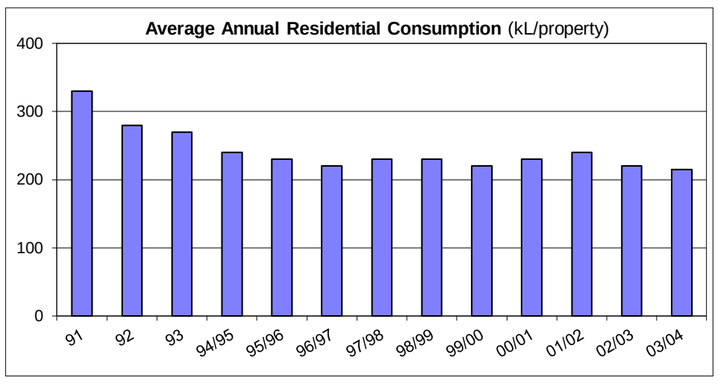
WATER SUPPLY	91	92	93	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04
UTILITY CHARACTERISTICS													
Employees (Employees/1000 properties)	1.7	1.7	1.7	1.6	1.6	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3
SOCIAL - *Bills/Charges*													
Average Residential Bill ($/ property)	339	318	318	339	339	334	339	313	318	335	345	335	325
SOCIAL - *Health*													
Compliance with Microbiological[3] Drinking Water Guidelines (% of samples complying)	91	91	91	92	90	93	93	95	97	97	98	98	98
SOCIAL - *Levels of Service*													
Number of Main Breaks (per 100km of Main)		16	19	15	14	14	15	15	15	18	12	15	11
ENVIRONMENTAL													
Annual Residential Consumption (kL/property)	330	280	270	240	230	220	230	230	220	230	240	220	215
ECONOMIC - *Financial*													
Economic Real Rate of Return (%)					2.2	2.4	2.8	2.4	2.5	2.6	1.7	2.9	2.7
ECONOMIC - *Efficiency*													
Operating (OMA) Cost ($/property)	185	180	185	175	180	180	185	191	185	200	210	240	255
Management Cost ($/property)	58	58	69	66	64	69	74	85	80	82	88	95	100

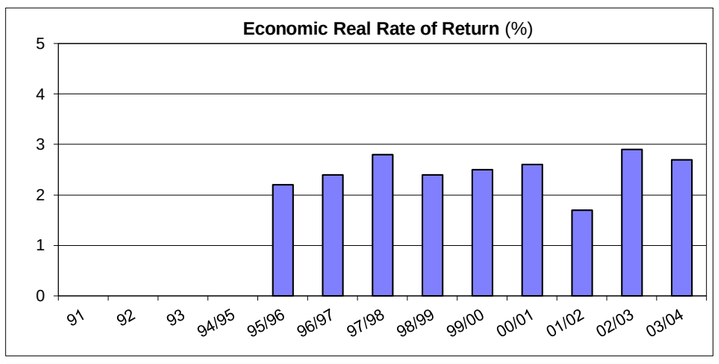


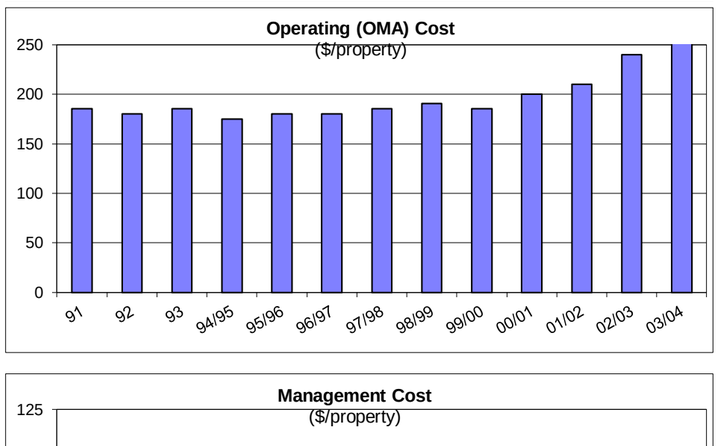












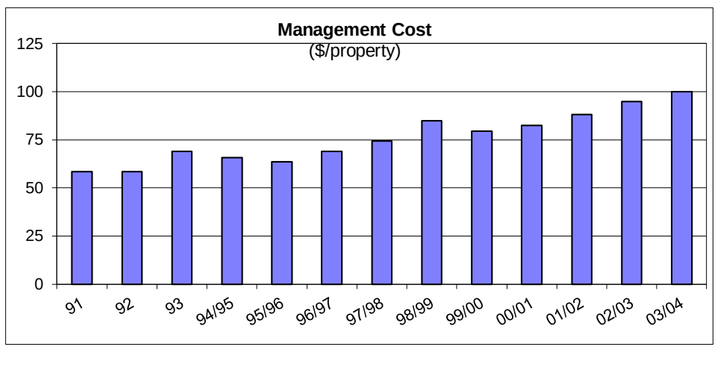
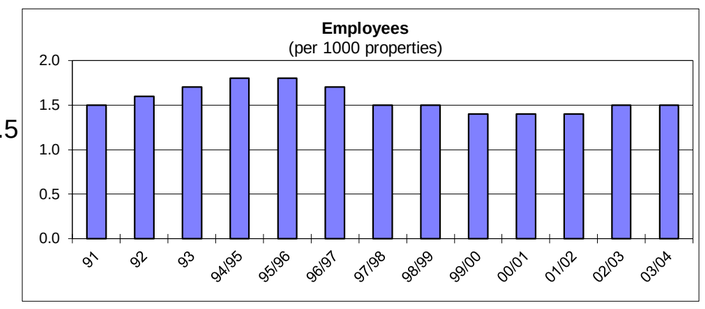
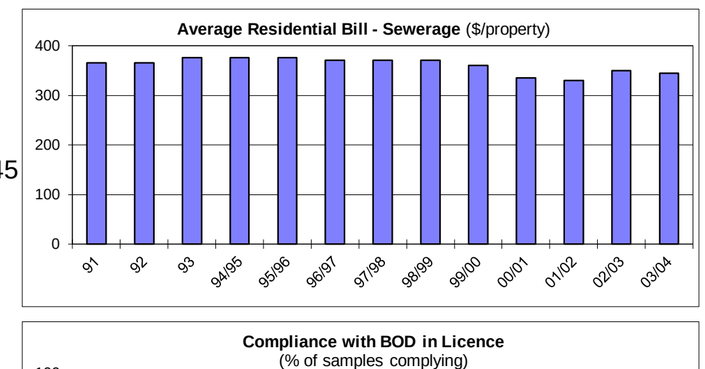
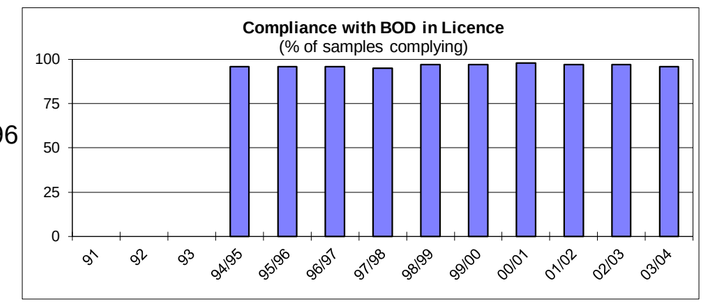


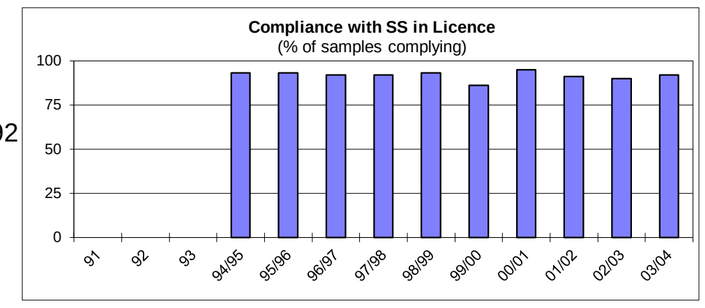
Table 4 - Trends in Statewide Performance Indicators - 1991 to 2003/04 cont'd

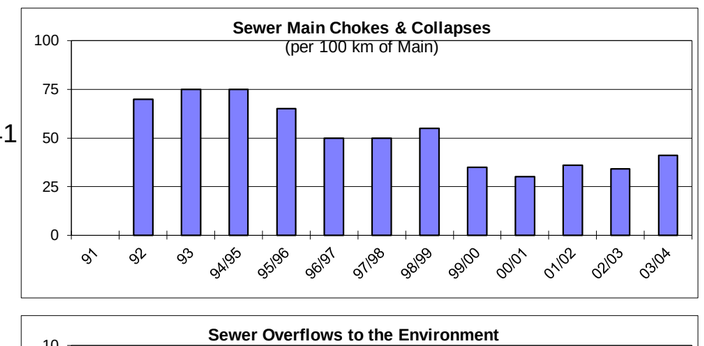
SEWERAGE	91	92	93	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04
UTILITY CHARACTERISTICS													
Employees	1.5	1.6	1.7	1.8	1.8	1.7	1.5	1.5	1.4	1.4	1.4	1.5	1.5
SOCIAL - *Bills/Charges*													
Average Residential Bill ($/property)	366	366	376	376	376	371	371	371	361	335	330	350	345
ENVIRONMENTAL													
Compliance with BOD in Licence (% of samples complying)				96	96	96	95	97	97	98	97	97	96
Compliance with SS in Licence (% of samples complying)				93	93	92	92	93	86	95	91	90	92
Sewer Main Chokes and Collapses (per 100 km of Main)	70	75	75	65	50	50	55	35	30	36	34	41	
Sewer Overflows to the Environment (per 100 km of Main)				8	6	3	3	4	4	5	7	7	
ECONOMIC - *Financial*													
Economic Real Rate of Return (%)				3.0	2.5	3.5	3.3	2.8	2.6	2.8	2.1	1.9	
ECONOMIC - *Efficiency*													
Operating (OMA) Cost ($/property)	175	175	185	185	185	196	216	216	227	225	240	260	265
Management Cost ($/property)	55	52	57	57	62	72	72	72	72	75	84	90	95

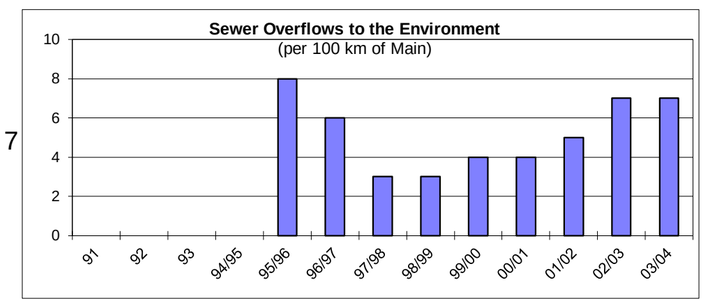


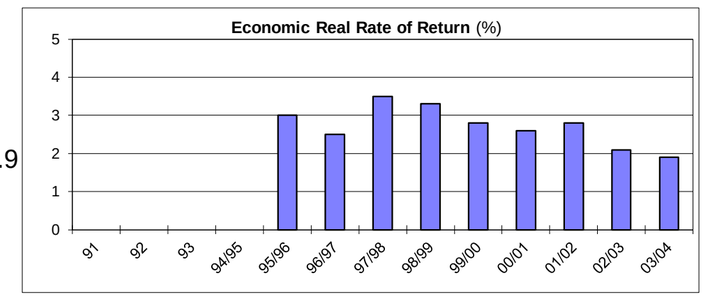


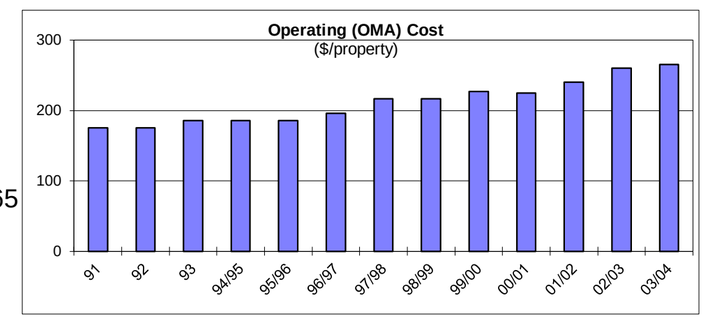


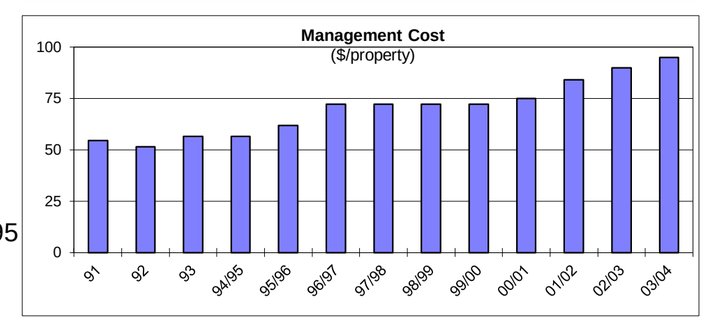












Notes:

1. The values shown are Statewide medians on a percentage of connected properties basis from 1991 to 2003/04, except for microbiological, BOD and SS compliance which are the percentage of samples complying.
2. Costs are in January 2004$.
3. From 1998/99, results are on the basis of E. coli in the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines. 1991 to 1997/98 results are on the basis of the 1987 NHMRC/AWRC Drinking Water Guidelines for Total Coliforms.

Table 5 - 2003/04 NSW Water Utility Performance Summary

	Water Utility	Water Supply - 2003/04 unless noted								Sewerage - 2003/04 unless noted				Water Supply and Sewerage - 2003/04 unless noted									
		Water Supply Assessments (No.)[5]	Total Water Supplied Potable + Non-potable (ML)[2]	Average Annual Residential Water Consumption (Potable) (kL/connected property)	Turnover ($M)[8]	2004/05 Tariff Pay-for-Use ?[9]	2004/05 Residential Tariff Independent of Land Value ?[10]	Water Quality Compliance (1996 NHMRC/ARMCANZ Guidelines) Chemical[11] (%)	Water Quality Compliance (1996 NHMRC/ARMCANZ Guidelines) Microbiological: E. coli[12] (%)	Turnover ($M)[2,8]	2004/05 Residential Tariff Independent of Land Value ?	DEC Licence Compliance BOD[13] (%)	DEC Licence Compliance SS[14] (%)	Total Turnover ($M)	2004/05 Typical Residential Bill ($/assessment)	Typical Developer Charge ($/ET)	Economic Real Rate of Return (%)	Debt to Equity (%)	OMA cost ($/connected property)	Management Cost ($/connected property)	Current Replacement Cost of System Assets ($M)	Pay-for-Use Water Pricing & Full Cost Recovery?	Strategic Business Plans Prepared ?[15]
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(13a)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1	Albury AMALGAMATED	20,400	10,500	307	**9.5**	Yes	☑	99	100	**9.0**	☑	85	58	**18.5**	(570)	(10100)	0.6	6	464	206	426	(Yes)	Yes[15]
2	Armidale Dumaresq	8,010	2,910	239	**3.8**	Yes	✓	100	100	**3.0**	✓	100	100	**6.8**	633	4,860	-0.8	1	646	275	165		Yes
3	Ballina (Reticulator)	13,180	4,430	234	**5.4**	Yes	✓	95	100	**9.4**	✓	97	90	**14.8**	600	10,400	4.1	0	662	214	138	Yes	Yes
4	Balranald (Dual Supply)	850	1,440	301	0.5	Yes	✓	98	100	0.3	✓	NL	NL	0.8	830	1,590	0.9	7	444	112	19	Yes	Yes
5	Barraba AMALGAMATED	740	170	191	0.4		☑	96	100	0.2		100	100	0.6			-0.5	9	702	264	7		Yes*
6	Bathurst Regional	12,070	6,810	333	**9.8**		✓	99	100	**9.1**	✓	100	96	**18.9**	770	3,910	3.6	1	545	205	226		Yes
7	Bega Valley (Unfiltered)	13,180	3,970	158	**6.1**	Yes	✓	100	100	**5.3**	✓	96	96	**11.4**	766	9,700	-0.9	0	720	356	189		Yes
8	Bellingen (Unfiltered)	4,060	1,470	225	**2.3**	Yes	✓	100	100	1.5	✓	97	95	**3.8**	784	9,840	0.9	0	595	295	59	Yes	Yes*
9	Berrigan (Dual Supply)	2,980	2,260	329	2.0		✓	99	100	1.2	✓	100	100	**3.2**	842	5,900	0.7	4	555	192	48		Yes
10	Bingara AMALGAMATED	730	360	259	0.4		☑		88	0.2		100	82	0.5			0.0	0		97	12		Yes
11	Bland (Sewerage Only)	1820	**NO WS**							0.8	×	100	77	0.8	373	1,000	0.7	0	227	41	8		
12	Blayney (Sewerage Only)	1,360	**NO WS**							1.0	✓	100	100	1.0	410	1,930	3.6	13	312	135	10		Yes*
13	Bogan	1,190	920	510	0.9	Yes	✓	100	97	0.5	×	NL	NL	1.4	890		1.0	2	662	328	23		
14	Bombala	900	350	392	0.4	Yes	✓	100	97	0.4	×	100	100	0.8	918	2,920	4.4	7	407	115	12		Yes
15	Boorowa	620	210	217	0.4	Yes	✓	100	93	0.1	✓			0.5	729	900	1.2	9	475	69	9	Yes	
16	Bourke (Dual Supply)	1,700	2,930	378	0.8	Yes	✓	93	100	0.5	✓	NL	NL	1.3	1050	860	-9.7	9	898	235	20		
17	Brewarrina (Dual Supply)	550	1,210	519	0.4		×	95	100	0.2	×	100	100	0.7	1062		-0.5	1	1126	93	9		
18	Australian Inland	10,130	6,050	323	**11.4**	Yes	✓	98	100	**2.6**	✓	100	96	**14.0**	623		-0.1	0	1076	319	95		Yes*
19	Byron (Reticulator)	10,500	3,560	200	**4.7**	Yes	✓	98	100	**9.3**	✓		100	**14.0**	863	12,600	2.5	4	817	277	140	Yes	Yes*
20	Cabonne	1,090	360	151	0.8	Yes	✓	99	100	1.3	×	100	87	**2.1**	1154		2.9	6	466	135	37		Yes
21	Carrathool (Groundwater)	1,130	1,700	489	0.9		✓	98	100	0.1	✓	NL	NL	1.1	515	1,410	-0.3	2	741	124	16		Yes
22	Central Darling (Dual Supply)	730	700	153	0.6	Yes	✓	100	100	0.1	✓	NL	NL	0.7	1295		-3.5	0	784	102	16		
23	Central Tablelands (WS Only)	5,190	2,160	254	**3.3**	Yes	✓	100	100	**No SGE**				**3.3**	408	3,000	0.0	21	402	195	70	Yes	Yes*
24	Cobar	2,020	1,660	485	1.4	Yes	✓	100	100	0.4	✓	NL	NL	1.9	841	2,180	1.3	0	485	172	30	Yes	Yes*
24-A	Cobar WB (Bulk Supplier)	2,020	4,250							**No SGE**													
25	Coffs Harbour (Unfiltered) AMALGAMATED	23,400	6,030	189	**16.3**	Yes	☑	100	100	**19.4**	☑	100	100	**35.7**	(994)	(10700)	5.0	22	549	203	349	(Yes)	Yes*
26	Coolah AMALGAMATED	1,160	390	281	0.5	Yes	☑	83	84	0.3		90	90	0.8		(800)	-0.9	0	580	99	9		Yes*
27	Coolamon (Sewerage Only)	850	**NO WS**							0.4	✓			0.4	240		2.3	3	170	47	4		Yes
28	Cooma-Monaro	3,650	1,700	314	**2.1**	Yes	✓	100	100	1.7	✓	100	100	**3.8**	990	4,250	3.0	6	692	202	27	Yes	Yes
29	Coonabarabran AMALGAMATED	1,900	950	328	1.1		☑	100		0.8	☑			1.9	(690)	(1830)	0.0	0	714	337	47		Yes*
30	Coonamble (Groundwater)	1,520	1,810	1,128	0.7		×	97	91	0.5	×	92	25	1.2	514		-0.2	1	310	41	21		Yes*
31	Cootamundra (Reticulator)	2,820	1,000	273	1.3		×	99	100	0.6	×	100	85	1.9	568	2,700	-4.6	6	411	89	11		Yes*
32	Copmanhurst (Unfiltered) AMALGAMATED	480	**NO WS**							0.4		69	59	0.4	(600)	(3850)	0.0	0	392	138	4		Yes*
33	Corowa AMALGAMATED	3,680	3,440	660	1.5	Yes	☑	98	72	1.4	☑	80	40	**2.9**	(640)	(810)	0.0	2	511	176	52		Yes
34	Cowra	5,250	2,560	273	**3.0**	Yes	✓	97	100	1.3	✓	75	58	**4.3**	697	5,150	0.6	3	607	374	43	Yes	Yes*
35	Crookwell AMALGAMATED	1,100	310	188	0.8	Yes	☑	100	100	0.5		100	100	1.3		(1340)	1.7	19	610	100	16		Yes*
36	Culcairn (Groundwater) AMALGAMATED	540	240	263	0.2		☑	100	100	0.3				0.5		(3910)	-1.1	4	387	110	11		Yes
37	Deniliquin	3,200	3,330	696	**2.2**	Yes	✓	98	100	1.5	✓	69	77	**3.7**	1003	1,050	4.1	2	589	223	39	Yes	Yes
38	Dubbo	13,440	9,890	459	**8.8**	Yes	✓	99	97	**8.4**	×	100	67	**17.2**	851	5,980	2.2	0	713	226	218		Yes
39	Dungog (Reticulator)	2,050	720	186	1.1	Yes	✓	99	100	0.7	✓	NL	NL	1.8	670	5,520	5.1	6	623	178	18	Yes	Yes
40	Eurobodalla (Unfiltered)	18,890	5,590	183	**10.6**	Yes	✓	99	100	**12.0**	✓	99	100	**22.6**	873	11,000	3.4	6	645	263	273	Yes	Yes
41	Fish River WS (Unfiltered, Bulk Supplier)	23,000	11,700		**5.8**	Yes	✓	98	100	**No SGE**				**5.8**			0.6	9	114	38	157	Yes	Yes
42	Forbes	3,450	2,410	410	1.9	Yes	✓	98	100	1.6	×	93	100	**3.5**	863	1,320	3.6	7	501	72	29		Yes
43	Gilgandra (Groundwater)	1,350	1,030	426	0.7	Yes	✓	100	100	0.4	✓	100	100	1.1	722		1.3	2	370	115	22	Yes	Yes*
44	Glen Innes AMALGAMATED	2,800	700	198	1.1	Yes	☑	92	96	0.8	☑	100	100	1.9	(605)		1.1	0	404	175	37	(Yes)	Yes*
45	Gloucester	1,470	560	265	0.8	Yes	✓	97	92	0.7	✓	100	54	1.5	846	11,100	-2.1	0	849	125	20		Yes
46	Goldenfields (Bulk Supplier) (WS Only)	18,800	9,560		**5.1**		✓	98	100	**No SGE**				**5.1**			-0.4		220	51	108		Yes
47	Goldenfields (Reticulator) (WS Only)	10,200	5,660	335	**7.7**	Yes	✓			**No SGE**				**7.7**	553	2,000	1.5		484	118	135	Yes	

Table 5 - 2003/04 NSW Water Utility Performance Summary

	Water Utility	Water Supply - 2003/04 unless noted								Sewerage - 2003/04 unless noted				Water Supply and Sewerage - 2003/04 unless noted									
		Water Supply Assessments (No.)[5]	Total Water Supplied Potable + Non-potable (ML)[2]	Average Annual Residential Water Consumption (Potable) (kL/connected property)	Turnover ($M)[8]	2004/05 Tariff Pay-for-Use ?[9]	2004/05 Residential Tariff Independent of Land Value ?[10]	Water Quality Compliance (1996 NHMRC/ARMCANZ Guidelines)		Turnover ($M)[2,8]	2004/05 Residential Tariff Independent of Land Value ?	DEC Licence Compliance		Total Turnover ($M)	2004/05 Typical Residential Bill ($/assessment)	Typical Developer Charge ($/ET)	Economic Real Rate of Return (%)	Debt to Equity (%)	OMA cost ($/connected property)	Management Cost ($/connected property)	Current Replacement Cost of System Assets ($M)	Pay-for-Use Water Pricing & Full Cost Recovery?	Strategic Business Plans Prepared ?[15]
								Chemical[11] (%)	Microbiological: E. coli[12] (%)			BOD[13] (%)	SS[14] (%)									
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(13a)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
48	Goldenfields (Combined) (WS Only)	18,800	9,560	156	**12.8**	Yes	✓	98	100	**No SGE**				**12.8**			-0.3	3	396	114	320		
49	Gosford	67,300	16,900	193	**18.9**	Yes	✓	100	100	**27.3**	✓	100	100	**46.2**	701	4,020	0.4	0	465	262	730	Yes	Yes
50	Goulburn AMALGAMATED	8,970	2,590	150	**4.6**	Yes	☑	99	100	**4.5**	☑	90	70	**9.1**	(587)	(9900)	2.9	16	591	276	65	(Yes)	Yes*
51	Grafton (Unfiltered) AMALGAMATED	7,420	2,390	192	**2.3**	Yes	☑			**3.2**		99	93	**5.5**			0.0	0		93	70		Yes*
52	Griffith	9,000	9,010	596	**5.0**	Yes	✓	100	100	**4.1**		100	75	**9.1**	688	4,220	0.7	0	772	273	79		Yes
53	Gundagai	960	600	311	0.4	Yes	✓	98	100	0.2				0.7	461		-0.4	1	585	123	5		
54	Gunnedah (Groundwater)	4,140	2,660	357	**2.0**		×	99	79	1.0	✓	100	92	**3.0**	515	5,340	2.9	2	342	96	45		Yes
55	Gunning (Groundwater) AMALGAMATED	350	100	186	0.2		☒	100	94	0.1		100	100	0.3		(6800)	3.4	0	350	76	5		Yes*
56	Guyra	1,190	310	175	0.5	Yes	✓	100	100	0.5	✓	100	92	1.0	886		0.4	11	464	129	21	Yes	Yes
57	Harden (Reticulator)	1,530	1,060	466	1.2		✓	100	90	0.3	✓	100	100	1.5	950		-2.5	4	660	121	19		Yes*
58	Hastings (Unfiltered)	27,700	6,500	178	**18.9**	Yes	✓	99	100	**19.8**	✓	100	96	**38.7**	745	8,650	4.6	1	571	175	379	Yes	Yes
58-A	Hawkesbury (Sewerage Only)	7,440	**NO WS**							**3.8**	✓	100	100	**3.8**	371	5,590	-0.2	0	348	154	57		Yes
59	Hay (Dual Supply)	1,290	1,510	200	0.6	Yes	✓	98		0.5	✓	100	90	1.1	723		-1.2	0	553	161	15		Yes*
60	Holbrook (Sge Only) AMALGAMATED	690	**NO WS**							0.3				0.3			2.7	0	247	79	5		Yes
61	Hume AMALGAMATED	2,300	1,050	307	1.3		☑	100	100	0.4		90	100	1.7		(3940)	0.9	0	815	205	17		
62	Hunter Water[16]	209,000		212	**87**	Yes	✓			**75**	✓			**162**	557				360		1,920	Yes	
63	Inverell	5,120	2,080	238	**2.9**	Yes	✓	100	100	1.3	✓	100	100	**4.2**	766		-0.1	5	557	184	73		Yes
64	Jerilderie (Dual Supply)	460	270	171	0.3		×	100	100	0.3	×	100	75	0.6	884	2,900	4.1	2	704	153	5		
65	Junee (Sewerage Only)	1,570	**NO WS**							0.5	✓			0.5	283	550	0.2	0	237	55	7		
66	Kempsey (Groundwater)	11,230	4,300	197	**6.4**	Yes	✓	100	100	**9.8**	✓	100	92	**16.2**	928	7,470	6.2	12	534	162	186	Yes	Yes*
67	Kyogle	1,850	460	187	1.1	Yes	✓	80	87	0.7	✓	92	78	1.7	836	2,000	-1.4	2	498	189	27		Yes
68	Lachlan	2,630	1,980	548	1.6	Yes	✓	97	100	0.8	✓	100	100	**2.4**	958		-0.4	0	521	141	49		Yes
69	Leeton	3,740	3,250	578	**2.4**	Yes	✓	100	100	1.9	×	100	100	**4.3**	586	5,750	4.1	2	619	162	52		Yes
70	Lismore (Reticulator)	12,740	3,660	186	**4.9**	Yes	✓	99	100	**6.6**	✓	100	87	**11.5**	676	9,440	2.3	1	529	109	136	Yes	Yes
71	Lithgow	7,380	2,140	214	**3.4**	Yes	✓	97	100	**2.3**	×	80	75	**5.7**	682	4,020	1.4	0	450	170	75		Yes
72	Lockhart (Sewerage Only)	810	**NO WS**							0.3	×	100	100	0.3	125		0.2	0	189	92	12		Yes
73	North Coast (WS Only) AMALGAMATED	11,040	4,600	231	**16.9**	Yes	☑	99	95	**No SGE**				**16.9**		(4140)	8.9	5	238	128	162	(Yes)	Yes
74	Maclean (Sge Only) AMALGAMATED	5,070	**NO WS**							**5.2**		88	86	**5.2**	(437)	(8000)	12.8	4	281	105	32		Yes
75	Manilla AMALGAMATED	1,130	540	379	0.5		☑	91	100	0.5		100	100	1.0		(2620)	-4.7	14	862	454	13		Yes*
76	Merriwa AMALGAMATED	610	330	299	0.3	Yes	☑	100	100	0.2		100	25	0.5		(2000)	-4.9	0	671	235	8		Yes*
77	MidCoast (Manning - Unfiltered)						✓	100	97		✓					6,700							Yes
78	MidCoast (Great Lakes - Unfiltered)						✓			0.0	✓			0.0		8,500							Yes*
79	MidCoast (Combined - Unfiltered)	35,400	11,300	219	**19.3**	Yes	✓	92	97	**15.7**	✓	100	100	**35.0**	858		1.9	22	587	111	454	Yes	
80	Moree Plains (Groundwater)	5,160	2,350	261	**2.9**	Yes	✓	99	100	**2.6**	✓			**5.5**	991	6,270	2.8	17	762	327	43	Yes	Yes*
81	Mudgee (Unfiltered) AMALGAMATED	4,900	2,070	281	**3.4**	Yes	☑		100	**2.3**		100	100	**5.7**		(5010)	2.7	13	589	236	78		Yes*
82	Mulwaree AMALGAMATED	510	120	98	0.4	Yes	☑			0.3				0.7		(5000)	2.7	16	693	45	9		Yes
83	Murray (Dual Supply)	2,030	1,550	237	1.3	Yes	✓	100	100	1.1	✓	NL	NL	**2.4**	691	1,400	4.6	25	525	186	17	Yes	Yes*
84	Murrumbidgee (Groundwater)	750	690	581	0.3	Yes	✓	99	100	0.3	×			0.6	642	2,000	2.8	0	317	159	8		Yes*
85	Murrurundi AMALGAMATED	640	170	176	0.4		☑	98	100	0.3		100	100	0.7		(1330)	2.8	0	354	52	6		
86	Muswellbrook	5,190	2,630	343	**3.5**	Yes	✓	97	100	**2.5**	✓	100	100	**6.0**	889	6,660	4.9	12	635	150	58	Yes	Yes
87	Nambucca (Groundwater)	6,240	1,810	186	**2.6**	Yes	✓	100	100	**3.1**	✓	92	96	**5.7**	614	7,250	3.4	6	449	189	78	Yes	Yes
88	Narrabri (Groundwater)	4,250	3,740	561	1.9	Yes	✓	100	97	1.2	✓	80		**3.1**	654	4,080	1.1	8	380	151	65	Yes	Yes
89	Narrandera (Groundwater)	2,200	1,630	556	1.2	Yes	✓	95	100	1.0	×	100	42	**2.2**	870		2.9	0	545	145	34		Yes
90	Narromine (Groundwater)	2,110	1,540	663	1.0	Yes	✓	96	100	1.0	✓	NL	NL	1.9	972	1,440	0.0	0	571	270	25	Yes	Yes
91	Nundle (WS Only) AMALGAMATED	230	90	331	0.1		☑	96	100	**No SGE**				0.1			-1.4	29	329	37	2		
92	Oberon (Reticulator)	1,240	760	202	1.0	Yes	✓	100	100	0.5	×			1.5	565	2,370	0.9	9	675	107	10		Yes*
93	Orange	14,640	4,930	206	**10.5**	Yes	✓	100	100	**7.2**	✓	95	95	**17.7**	570	8,910	1.6	0	489	191	204	Yes	Yes
94	Parkes	5,860	6,720	378	**5.9**	Yes	✓	100	100	1.5	×			**7.4**	665	7,840	3.6	0	578	89	102		Yes
95	Parry (Groundwater) AMALGAMATED	1,920	560	159	1.0		☑	94	94	0.6				1.5		(1220)	1.2	20	441	105	33		Yes
96	Pristine Waters AMALGAMATED	1,950	620	235	1.0	Yes	☑			0.8		100	67	1.9		(8950)	1.9	11	790	70	20		Yes

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	Water Utility	Water Supply - 2003/04 unless noted								Sewerage - 2003/04 unless noted				Water Supply and Sewerage - 2003/04 unless noted									
		Water Supply Assessments (No.)[5]	Total Water Supplied Potable + Non-potable (ML)[2]	Average Annual Residential Water Consumption (Potable) (kL/connected property)	Turnover ($M)[8]	2004/05 Tariff Pay-for-Use ?[9]	2004/05 Residential Tariff Independent of Land Value ?[10]	Water Quality Compliance (1996 NHMRC/ARMCANZ Guidelines) Chemical[11] (%)	Water Quality Compliance (1996 NHMRC/ARMCANZ Guidelines) Microbiological: E. coli[12] (%)	Turnover ($M)[2,8]	2004/05 Residential Tariff Independent of Land Value ?	DEC Licence Compliance BOD[13] (%)	DEC Licence Compliance SS[14] (%)	Total Turnover ($M)	2004/05 Typical Residential Bill ($/assessment)	Typical Developer Charge ($/ET)	Economic Real Rate of Return (%)	Debt to Equity (%)	OMA cost ($/connected property)	Management Cost ($/connected property)	Current Replacement Cost of System Assets ($M)	Pay-for-Use Water Pricing & Full Cost Recovery?	Strategic Business Plans Prepared ?[15]
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(13a)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
97	Queanbeyan (Reticulator)	15,390	4,030	155	**7.4**	Yes	✓	100	100	**7.2**	✓	100	100	**14.6**	671	1,860	2.6	0	482	162	111	Yes	Yes
98	Quirindi (Groundwater) AMALGAMATED	1,380	580	299	0.5		☑	100	100	0.4		100	15	0.9			0.0	0	366	101	22		
99	Richmond Valley	6,720	2,930	275	**3.2**	Yes	✓	96	100	**3.7**	✓	100	91	**6.9**	803	7,150	2.6	0	645	290	78	Yes	Yes
100	Riverina (Groundwater) (WS Only)	28,300	16,100	354	**15.6**	Yes	✓	96	100	**No SGE**				**15.6**	310	1,400	3.9	5	211	61	196	Yes	Yes
101	Rous (Bulk Supplier) (WS Only)	37,300	11,500		**9.8**	Yes	✓	100	100	**No SGE**				**9.8**		3,190	1.4	2	151	76	119	Yes	Yes
102	Rylstone AMALGAMATED	1,310	550	261	0.7		☑	100	100	0.5		100	79	1.2			-3.4	0	771	370	21		Yes
103	Scone (Unfiltered) AMALGAMATED	2,610	1,740	291	1.7	Yes	☑	92	100	1.3		100	100	**3.0**		(4900)	3.8	0	542	255	35		
104	Severn (Unfiltered) AMALGAMATED	200	30	133	0.1	Yes	☑		87	0.1				0.2			2.9	5	394	185	2		
105	Shoalhaven	46,800	18,900	230	**19.8**	Yes	✓	99	93	**24.4**	✓	100	93	**44.2**	778	4,320	4.2	6	515	229	513	Yes	Yes
106	Singleton	5,800	2,800	301	**5.6**	Yes	✓	100	100	**3.0**	✓	100	100	**8.6**	732	3,960	7.6	0	485	141	84	Yes	Yes
107	Snowy River (Unfiltered)	2,370	2,210	591	1.4	Yes	✓	100	100	1.6	✓	100	100	**3.0**	1035	5,000	2.4	1	401	133	42	Yes	Yes
108	Sydney Water[16]	1,661,000		224	**677**	Yes	✓		100	**748**	✓			**1,425**	636				490		11,660	Yes	
109	Tallaganda (Unfiltered) AMALGAMATED	650	180	223	0.3	Yes	☑	100		0.2		92	75	0.5		(6560)	0.2	0	536	78	6		Yes*
110	Tamworth AMALGAMATED	15,040	8,620	305	**8.9**	Yes	☑	100	96	**7.2**	☑	100	79	**16.1**	(748)	(4990)	2.2	2	566	164	265	(Yes)	Yes
111	Temora (Sewerage Only)	1,890	**NO WS**							0.4	✓	100	95	0.4	170		-0.2	0	165	26	9		
112	Tenterfield	2,030	690	204	0.9	Yes	✓	100	100	0.7	✓	100	90	1.6	748	3,000	1.7	0	695	377	28	Yes	Yes
113	Tumbarumba	1,070	430	261	0.7	Yes	✓	100	97	0.4	✓			1.1	807	830	2.2	2	431	143	18	Yes	Yes
114	Tumut	4,200	4,010	306	**2.3**	Yes	✓	97	100	**2.3**	✓	88	95	**4.6**	965	6,480	1.8	1	588	175	71	Yes	Yes*
115	Tweed	29,500	9,540	219	**16.4**	Yes	✓	99	100	**18.9**	✓	97	96	**35.3**	690	7,820	4.4	2	513	211	397	Yes	Yes*
116	Uralla	1,290	320	192	0.6	Yes	✓		100	0.4	✓	100	100	1.0	720		-0.3	1	521	233	15		Yes*
116-A	Urana (Sewerage Only)	300	**NO WS**							0.2	✓			0.2	189	4,100				84	4		Yes*
117	Wagga Wagga (Sewerage Only)	21,200	**NO WS**							**10.7**	✓	100	90	**10.7**	279	1,450	6.3	0	151	33	166		Yes*
118	Wakool	1,350	1,350	532	1.1		✓	98	100	0.5	✓	NL	NL	1.7	1105		2.1	17	684	198	23		Yes
119	Walcha	820	230	162	0.4	Yes	✓	100	100	0.2	✓	100	83	0.7	759		-1.2	0	547	131	16		
120	Walgett (Dual Supply)	1,660	1,640	146	1.2		✓	98	91	0.6	✓			1.8	839		-2.2	3	766	249	27		
121	Warren (Dual Supply)	1,070	800	199	0.4		✓	98	100	0.5	✓		100	1.0	830		2.2	3	492	114	12		Yes
122	Weddin (Sewerage Only)	1,010	**NO WS**							0.2	✓			0.2	157		-12.5	0	111	27	7		
123	Wellington	2,930	1,190	298	1.8	Yes	✓	100	100	1.2	×	100	50	**3.0**	1024	3,390	2.1	15	618	193	39		Yes
124	Wentworth (Dual Supply)	1,690	2,760	224	1.6	Yes	✓	97	89	0.8	✓	100	100	**2.4**	894	4,580	0.7	10	794	171	35	Yes	
125	Wingecarribee	18,420	5,170	214	**9.7**	Yes	✓	99	100	**8.3**	✓	96	98	**18.0**	855	6,810	3.4	11	434	187	232	Yes	Yes
126	Wyong	57,900	14,600	188	**28.2**	Yes	✓	100	100	**23.2**	✓	NL	100	**51.4**	584	4,500	2.5	7	430	147	658	Yes	Yes
127	Yallaroi (Groundwater) AMALGAMATED	720	560	409	0.4		☒	100	86	0.2		100	20	0.6			-1.4	20	675	120	13		Yes*
128	Yarrowlumla AMALGAMATED	970	390	250	0.7		☑		100	0.7		100	100	1.4		(3890)	0.0	0		113	12		Yes*
129	Yass Valley	2,940	850	204	1.8	Yes	✓	98	95	1.5	✓	100	100	**3.3**	766	12,300	4.7	0	546	190	44	Yes	Yes
130	Young (Reticulator)	3,760	1,590	264	**2.2**		✓	97	100	1.2	✓	100	83	**3.4**	735	2,700	5.5	4	371	68	12		Yes
131	Albury City	20,768	10,700	307	**9.7**	Yes	✓	99	100	**9.0**	✓	85	58	**18.7**	570	10,000	0.6	6	471	205	428	Yes	Yes
132	Clarence Valley	20,410	7,560	216	**20.2**	Yes	✓	99	95	**9.2**	✓	90	86	**29.4**	714	12,100	4.6	3		204	284	Yes	Yes
133	Coffs Harbour	23,400	6,030	189	**16.3**	Yes	✓	100	100	**19.9**	✓	100	100	**36.2**	994	10,700	5.0	22	551	203	353	Yes	Yes
134	Corowa	4,669	3,890	583	**2.1**	Yes	✓	98	100	1.7	✓	80	40	**3.8**	640	1,710	0.2	1	578	182	61	Yes	Yes
135	Glen Innes Severn	3,000	730	193	1.1	Yes	✓	86	95	0.9	✓	100	100	**2.1**	599		1.2	0	403	176	39	Yes	Yes
136	Goulburn Mulwaree	9,480	2,710	147	**5.1**	Yes	✓	99	100	**4.8**	✓	90	70	**9.8**	783	9,700	2.9	16	598	266	74	Yes	Yes
137	Greater Hume	1,483	670	290	0.7	No	×	100	100	0.8	×	90	100	1.5	670	4,230	0.1	2	629	143	21		
138	Gwydir	1,450	870	334	0.8	No	✓	99	87	0.4	✓	100	52	1.1	809		-0.7	10	600	142	26		Yes
139	Liverpool Plains	2,257	830	247	0.9	No	✓	98	100	0.7	✓	100	15	1.7	473	4,000	0.6	6	389	100	38		
140	Mid Western Regional	6,210	2,620	277	**4.1**	Yes	✓		100	**2.8**	✓	100	96	**6.9**	927	4,650	1.5	11	624	262	99	Yes	Yes
141	Palerang	1,620	570	240	1.0	Yes	✓	99	100	0.9	✓	97	92	1.9	931	4,810	0.1	0	552	163	18	Yes	Yes
142	Tamworth Regional	18,311	9,580	294	**10.4**	Yes	✓	98	96	**8.2**	✓	100	81	**18.7**	744	4,990	1.6	4	586	183	305	Yes	Yes
143	Upper Hunter	3,732	2,210	277	**2.4**	Yes	✓	94	100	1.7	✓	100	90	**4.1**	779	4,010	2.3	0	538	226	48	Yes	
144	Upper Lachlan	1,450	410	187	1.0	Yes	✓	100	100	0.6	×	100	100	1.6	1012	2,500	2.1	15	552	95	21	Yes	Yes
145	Warrumbungle	3,060	1,340	311	1.7	Yes	✓	94		1.1	✓			**2.7**	690	1,690	-0.4	0		252	56		Yes

Table 5 - 2003/04 NSW Water Utility Performance Summary

Water Utility	Water Supply - 2003/04 unless noted								Sewerage - 2003/04 unless noted				Water Supply and Sewerage - 2003/04 unless noted								
	Water Supply Assessments (No.)[5]	Total Water Supplied Potable + Non-potable (ML)[2]	Average Annual Residential Water Consumption (Potable) (kL/connected property)	Turnover ($M)[8]	2004/05 Tariff Pay-for-Use ?[9]	2004/05 Residential Tariff Independent of Land Value ?[10]	Water Quality Compliance (1996 NHMRC/ARMCANZ Guidelines)		Turnover ($M)[2,8]	2004/05 Residential Tariff Independent of Land Value ?	DEC Licence Compliance		Total Turnover ($M)	2004/05 Typical Residential Bill ($/assessment)	Typical Developer Charge ($/ET)	Economic Real Rate of Return (%)	Debt to Equity (%)	OMA cost ($/connected property)	Management Cost ($/connected property)	Current Replacement Cost of System Assets ($M)	Pay-for-Use Water Pricing & Full Cost Recovery?	Strategic Business Plans Prepared ?[15]
							Chemical[11] (%)	Microbiological: E. coli[12] (%)			BOD[13] (%)	SS[14] (%)										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(13a)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Totals [6]	767,000	325,000 ML (note 6)	Median 215kL/connected property (note 7)	$439M (note 6)	79 / 95 Yes (note 9)	89 / 95 Yes (note 9)	92/113 Complied (note 11)	77/113 Complied (note 12)	$368M (note 6)	74/101 Yes (note 9)	63/107 Complied 100% (note 13)	36/107 Complied 100% (note 14)	$806M (note 6)	Median $705 per assessment (note 7)	Median $5,400 per ET (note 7)	Median 2.5% (94/126 +ve) (note 7)	Median 2.7% (note 7)	Median $520/ connected property (note 7)	Median $195/ connected property (note 7)	$10,600M	55/95 Yes (note 10)	69 Yes 39 Yes* 108/126 (note 15)

Notes:

1. This table shows the key 2003/04 performance indicators/characteristics for NSW water utilities. A more detailed breakdown is provided in Tables 6 to 18 and Figures 1 to 83 of the *2003/04 NSW Water Supply and Sewerage Benchmarking Report* (www.deus.nsw.gov.au/water).
   This table enables LWUs to carry out an overall comparison of their performance with that of other NSW LWUs.
   However, ***it is important to ensure that any such comparisons are made with LWUs with similar businesses.*** (refer to pages 14, 17 and 18 of the report).
2. **No WS** means not responsible for water supply; **No SGE** means not responsible for sewerage.
3. In NSW in 2003/04, there were 129 water utilities comprising:
   - 3 metropolitan water utilities (Sydney and Hunter Water Corporations and Hawkesbury Council), and
   - 126 non-metropolitan Local Water Utilities (LWUs).

   The 126 LWUs comprised:
   - 121 local government councils (under *Local Government Act 1993*),
   - 5 LWUs (Gosford Council, Wyong Council, Cobar WB, Fish River WS, Australian Inland) under the *Water Management Act 2000* .

   Of the 126 LWUs,
   - 113 were responsible for water supply (including 3 for bulk supply [Cobar WB, Fish River WS, Rous Water]),
   - 118 were responsible for sewerage.
   - 105 were responsible for both water supply and sewerage, 8 for water supply only and 13 for sewerage only.

   Following recent council amalgamations, the number of LWUs was 107 in June 2004. The results for the new amalgamated LWUs are shown as Nos. 131 to 143 in the table. In addition, Bathurst Regional, Cooma-Monaro Lithgow, Queanbeyan, Richmond Valley, Tumut and Yass Valley Councils were involved in amalgamations but these did not affect their water supply and sewerage responsibilities.
4. Where an LWU has not reported an item for 2003/04, the value previously reported has been used where available. Such values are shown in this table in italics bold.
5. The number of sewerage assessments for LWUs responsible for sewerage only (column (1)) is shown left justified.
6. The totals shown above are for non-metropolitan NSW and therefore exclude Sydney & Hunter Water Corporations and Hawkesbury Council. The totals for the Water Supply Assessments (column (1)), Annual Water Consumption (column (2)) and Turnover (column (4)) exclude double-counting where bulk water suppliers are involved.
   - **Total number of water supply assessments** in non-metropolitan NSW was 758,000 (column (1)).
   - **Total annual water consumption** was 323,000 ML (column (2)).
   - **Total turnover** for water supply and sewerage was $806M (column (13)) and the current replacement cost of assets was $10,600M (column (19)).
7. Columns (3), (13), (14), (15), (16), (17) and (18) show that the Statewide medians (non-metropolitan) were:
   - **Average annual residential water consumption** - 215kL/connected property (column (3)).
   - **Typical residential bill** for water and sewerage - $705/assessment (column(13a). The 2004/05 typical residential bill for water supply has been calculated on the basis of each LWU's 2004/05 tariff using the 2003/04 average annual residential water consumption (column (3)). The typical residential bill for sewerage is based on the LWU's access charge (column (1)) of Appendix F except for 5 LWUs where account was also taken of the LWU's usage charges.
   - **Typical developer charge** for water and sewerage - $5,400/ET (column (14)). For LWUs with water supply only or sewerage only, this is shown left justified in column (14) while the result for amalgamated LWUs are shown in brackets. Refer also to Appendices E and F.
   - Economic real rate of return (ERRR) for water and sewerage - 2.5% (column (15)). 94 of the 126 non-metropolitan LWUs had a positive real rate of return. Refer also to Appendices E and F.
   - **Debt/equity** for water and sewerage - 2.7% (column (16)).
   - **Operation, maintenance and administration (OMA)** cost for water and sewerage - $520/connected property (column (17)). For water supply only or sewerage only utilities, the OMA cost is shown left justified in column (17). Refer also to Appendices E and F.
   - **Management cost** for water supply and sewerage - $195/connected property (column (18)). For water supply only or sewerage only LWUs, the management cost is shown left justified in column (18).
8. **Category 1 Businesses** - Category 1 businesses are defined as having an annual turnover of over $2M (*NSW Government's Policy Statement on Application of National Competition Policy to Local Government, June 1996*).
   51 LWUs are Category 1 businesses (shown in bold). 31 of these are Category 1 for both water supply and sewerage, 18 are Category 1 for water supply only, and 2 are Category 1 for sewerage only.
   Column (4) shows there were 49 LWUs responsible for water supply with a turnover of over $2M; and 33 such utilities responsible for sewerage (column (9).
9. **Pay-for-use water supply tariff** - 79 of the 95 water supply LWUs have a pay-for-use water supply tariff in 2004/05 (ie. a two-part tariff or an inclining block tariff) (column (5)). In addition, 89 of these water supply LWUs (column 6) and 74 of the 101 LWUs responsible for sewerage (column 10) have residential tariffs independent of land value. Refer also to Appendix E. Such tariffs comply with IPART recommendations and COAG Water Reforms.
10. **Pay-for-Use Pricing & Full Cost Recovery** - 55 of the 95 LWUs have pay-for-use water supply pricing in 2004/05 (col 5, 20), residential tariffs independent of land value (cols 6, 10) together with a positive ERRR (Appendices E and F) for each of water supply and sewerage. Such LWUs comply with the COAG Strategic Framework for Water Reform. The results for residential tariff independent of land value (column 6) for amalgamated LWUs is shown in brackets.
11. **Physical and chemical water quality** - 95% of the 25,500 physical samples and 97% of the 31,600 chemical samples tested for NSW LWUs achieved 100% compliance with the 1996 NHMRC/ARMCANZ Guidelines.
    Column (7) shows that 92 LWUs complied with chemical water quality (health related).
    89 out of 113 LWUs complied with physical water quality (non-health related).
12. **Microbiological water quality** - E.coli contamination is the primary health-related indicator.
    E.coli - 98% of the 25,000 samples tested for NSW LWUs achieved 100% compliance with the1996 NHMRC/ARMCANZ Guidelines. 77 out of 113 LWUs complied with these guidelines (column 8).
13. **BOD** - 96% of the 4,500 sampling days for NSW LWUs achieved 100% compliance with the 90-percentile limit of their DEC licence for BOD (Biochemical Oxygen Demand). 63 out of 108 LWUs licenced by the DEC achieved 100% BOD compliance (column 11) (10 LWUs had no DEC discharge licence (NL)).
14. **SS** - 92% of the 4,600 sampling days for NSW LWUs achieved 100% compliance with the 90-percentile limit of their DEC licence for SS (Suspended Solids). 36 out of 108 LWUs licenced by the DEC achieved 100% SS compliance (column 12) (10 LWUs had no DEC discharge licence (NL)).
15. **Strategic Business Plans** - 69 LWUs have completed their water supply and sewerage Strategic Business Plans (col 21) and have demonstrated long term financial sustainability of their water supply and sewerage businesses to comply with National Competition Policy. A number of these plans now need updating. A further 39 LWUs have prepared draft Strategic Business Plans for their businesses, but further development of these draft business plans is required (shown as "Yes*" in column 21).
16. The performance indicators for Sydney and Hunter Water Corporations are from *WSAA facts 2004* .

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CHARGES/BILLS TABLES

This section contains the following Charges/Bills Tables:

Table 6 - Water Supply - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																			RESIDENTIAL BILLS						COST RECOVERY											
		Type of Tariff	Access Charge (or Minimum)		Charge Independent of Land Value?		Allowance		Usage Charge Step (kL) Step 1		Usage Charge Step (kL) Step 2		Usage Charge Charges (c/kL) Step 1		Usage Charge Charges (c/kL) Step 2		Operating Cost (OMA)			Typical Developer Charge			Typical Residential Bill			Average Residential Bill			OMA + Depreciation			Economic Real Rate of Return			Residential Revenue from Usage Charges		Average Annual Residential Consumption (Potable)		Connected Properties	
			($)				(kL)		Step 1		Step 2		Step 1		Step 2		(c/kL)			($/ET)			($/assessment)			($/property)			($/property)			(%)			(% of residential bills)		kL/property			
		(1)	(2)		(3)		(4)		(5a)		(5b)		(5c)		(5d)		(6)			(7)			(8)			(9)			(11)			(12)			(13)		(14)		(15)	
		2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2001/02	2002/03	2003/04	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	01/02	02/03	03/04	01/02	02/03	03/04	02/03	03/04	02/03	03/04	02/03	03/04
1	Albury	AMALGAMATED	153	76	✓	✓	Nil	Nil	<300	<275	>300	>275	15	44	48	88	36	41	40	1,500	1,500	4,665	247	247	225	258	223	216	298	364	365	0.0	0.0	1.0	36	43	373	307	18,700	21,100
2	Armidale Dumaresq	Inclining Block*	180	180	✓	✓	Nil	Nil	<400	<200	>400	>200	70	75	88*	100	85	81	90	3,620	3,620	3,620	378	378	369	422	390	339	558	547	513	-1.2	0.7	-0.7	52	70	283	239	7,600	7,850
3	Ballina (Reticulator)	Inclining Block	90	90	✓	✓	Nil	Nil	<350	<350	>350	>350	72	77	95	100	67	106	94	4,510	4,510	4,510	231	231	270	254	227	239	326	463	445	2.3	-1.9	0.6	65	70	202	234	10,610	12,300
4	Balranald (Dual Supply)	Two Part	456	340	×	✓		Nil	All	All	N/A	N/A	N/A	55	N/A	N/A	16	12	16	910	910	910	462	456	505	513	544	539	488	398	439	0.3	1.8	1.4	3	0	290	301	760	800
	Balranald (Non Potable))	200kL Allowance							All	>200	N/A	N/A	N/A	20	N/A	N/A																							
5	Barraba	AMALGAMATED	485		✓	✓	300		>300	>300	N/A	N/A	65	65	N/A	N/A	72	137	128				485	485		468	517	564	418	491	513	1.2	-0.3	0.6	3	3	169	191	690	630
6	Bathurst Regional	45kL Allowance	250	250	✓	✓	45	45	>45	>45	>300	>300	50	50	80	80	55	64	58	1,960	2,060	2,156	375	375	420	363	391	384	419	462	459	1.7	2.1	2.6	43	41	296	333	12,800	12,800
7	Bega Valley (Unfiltered)	Two Part	146	146	✓	✓	Nil	Nil	All	All	N/A	N/A	82	88	N/A	N/A	88	78	94	2,790	2,950	4,500	289	289	276	324	322	302	417	438	447	1.0	0.7	0.1	57	55	174	158	12,300	12,800
8	Bellingen (Unfiltered)	Two Part	207	207	✓	✓	Nil	Nil	All	All	N/A	N/A	61	62	N/A	N/A	44	50	62	5,500	4,310	6,136	340	352	346	283	312	348	362	360	413	1.9	1.7	1.8	43	41	237	225	3,900	3,860
9	Berrigan (Dual Supply)	250kL Allowance	474	489	✓	✓	250	250	>250	>250	N/A	N/A	55	55	N/A	N/A	37	35	44	475	475	4,200	533	533	532	518	545	525	481	480	511	0.5	3.7	1.6	14	10	356	329	2,900	2,920
	Berrigan (Non Potable)	500 kL Allowance							>500	>500	N/A	N/A	27	27	Nil	Nil																							
10	Bingara	AMALGAMATED	344		✓	✓	320		>320	N/A	N/A	N/A	170	N/A	N/A	N/A	50	32					333	344		346	413		400	301		0.0	3.9		29		283	259	730	730
11	Bland	No WS																																						
12	Blayney	No WS																																						
13	Bogan	Inclining Block	549	195	×	✓	700	Nil	>700	<450	N/A	>450	78	60	N/A	92	60	66	62				518	549	520	588	619	652	712	724	684	-2.0	-1.5	-0.7	9	14	537	510	1,200	1,200
14	Bombala	Inclining Block	360	373	✓	✓	Nil	Nil	<350	<350	>350	>350	41	43	90	93	55	78	59	1,190	1,190	1,280	468	468	561	415	427	452	299	366	315	2.4	0.7	3.9	29	31	262	392	860	860
15	Boorowa	Two Part	390	300	✓	✓	Nil	Nil	All	All	N/A	N/A	70	100	N/A	N/A	62	88	83	400	400	400	484	578	517	516	489	502	418	409	390	2.1	1.8	3.1	27	28	268	217	570	580
16	Bourke (Dual Supply)	Two Part	434	450	✓	✓	Nil	Nil	All	All	N/A	N/A	37	37	N/A	N/A	31	41	22	400	400	400	579	603	590	669	639	621	854	904	823	-6.5	####	-9.3	17	18	458	378	1,300	1,280
	Bourke (Non Potable)	Unmetered							All	All	N/A	N/A	Nil	Nil	N/A	N/A																							
17	Brewarrina	Unmetered	600	648	×	×			All	All	N/A	N/A	N/A	N/A	N/A	N/A	51	27	28				600	600	648	540	575	744	739	731	850	-0.5	-0.1	0.5		38	470	519	530	470
18	Australian Inland	Inclining Block*	233	185	✓	✓	200	Nil	>200	<200	>400	>200	65	48	178	75	88	152	148				288	288	373		365	408	910	1014	1089	-0.1	2.6	-0.1	36	48	286	323	10,400	10,200
19	Byron (Reticulator)	Two Part	95	99	✓	✓	Nil	Nil	All	All	N/A	N/A	92	96	N/A	N/A	74	118	92	6,460	6,460	6,460	258	264	291	300	241	286	368	415	413	6.0	-1.6	2.1	62	67	184	200	9,900	10,100
20	Cabonne	Inclining Block*	520	470	×	✓	300	Nil	>300	<300	N/A	>300	175	71	N/A	115	78	90	88	400	400	400	520	520	577	573	599	602	587	632	545	0.4	0.4	1.8	19	20	190	151	1,000	1,040
21	Carrathool (Groundwater)	500kL Allowance	315	315	✓	✓	500	500	>500	>500	>1000	>1000	28	33	44	47	32	27	34	818	843	863	326	326	315	496	506	514	772	673	660	-0.3	1.7	1.0			543	489	1,100	1,070
22	Central Darling (Dual Supply)	Two Part	535	100	✓	✓	100	Nil	>100	All	N/A	N/A	280	290	N/A	N/A	45	85	68				622	700	945	659	615	776	839	1174	1014	-1.5	-5.6	-4.2	41	51	159	153	730	730
	(Non Potable-Ivanhoe)	Two Part		400					>200	All	N/A	N/A	120	0	N/A	N/A																							
23	Central Tablelands (WS Only)	Two Part	124	124	✓	✓	Nil	Nil	<5000	All	<9000	N/A	106	112	72*	N/A	61	70	92	3,000	3,000	3,000	419	419	408	415	396	407	572	596	611	-0.9	-0.1	0.0	72	71	278	254	4,800	4,930
24	Cobar	Inclining Block	517	300	×	✓	550	Nil	>550	<500	N/A	>500	135	65	N/A	130	67	40	31	1,400	1,400	1,408	600	600	616	597	616	589	770	555	416	-4.1	-1.7	1.7	25	24	614	485	1,900	1,920
24-A	Cobar WB (Bulk Supplier)																																						1,900	1,920
25	Coffs Harbour (Unfiltered)	AMALGAMATED	184	193	✓	✓	Nil	Nil	All	N/A	N/A	N/A	125	N/A	N/A	N/A	74	75	79	2,500	5,550	5,747	392	412	441	333	335	355	277	265	299	1.3	5.7	5.3	63	64	183	189	21,100	22,000
26	Coolah	AMALGAMATED	184		✓	✓	Nil		<300	N/A	>300	N/A	58	N/A	73	N/A	97	112	108			400	359	359		330	373	378	425	484	463	-2.2	-5.0	-1.5	51	49	301	281	1,100	1,130
27	Coolamon	No WS																																						
28	Cooma-Monaro	Two Part	335	342	✓	✓	Nil	Nil	All	All	N/A	N/A	50	52	N/A	N/A	61	62	69	2,150	2,300	2,343	476	500	505	455	493	524	339	412	421	7.3	6.7	7.7	37	33	329	314	3,500	3,620
29	Coonabarabran	AMALGAMATED	465	345	×	✓	683	683	>683	N/A	N/A	N/A	68	N/A	N/A	N/A	66	105	73	996	996	996	465	465	345	508	498	499	604	664	577	-0.9	-1.6				287	328	1,900	1,900
30	Coonamble (Groundwater)	808kL Allowance	194	194	×	×	809	808	>808	>808	N/A	N/A	24	24	N/A	N/A	11	15	11	452	452		262	262	270	363	375	361	237	302	243	4.5	2.1	3.8	16	12	1091	1128	1,300	1,320
31	Cootamundra (Reticulator)	219kL Allowance	298	298	×	×	219	219	>219	>219	>719	N/A	113	113	99	99	58	86	69	2,000	2,000	2,000	393	393	359	443	463	446	356	524	564	0.5	4.8	2.4	23	23	303	273	2,700	2,790
32	Copmanhurst (Unfiltered)	No WS																																						
33	Corowa	AMALGAMATED	212	140	✓	✓	450	Nil	>450	<300	N/A	>300	50	10	N/A	50	21	22	26			284	396	396	350	295	345	246	315	352	353	1.1	1.5	0.2	17	11	819	660	3,300	3,420
34	Cowra	Inclining Block*	320	330	✓	✓	Nil	Nil	<500	<500	>500	>500	28	28	55*	57*	68	54	83	2,500	2,500	2,500	422	422	407	503	483	465	501	499	560	0.3	1.2	-0.7	26	20	370	273	4,900	4,990
35	Crookwell	AMALGAMATED	375		×	✓	Nil		<300	N/A	>300	N/A	82	N/A	98	N/A	72	96	127	760	780	810	592	592		610	545	500	367	426	471	4.0	3.7	4.1	4	32	265	188	1,100	1,110
36	Culcairn (Groundwater)	AMALGAMATED	152	152	✓	✓	238	238	>238	N/A	N/A	N/A	64	N/A	N/A	N/A	36	34	54	1,780	1,780	1,780	169	169	168	173	196	176	170	193	279	3.2	4.1	-0.5	37	30	265	263	550	550
37	Deniliquin	Inclining Block*	519	460	✓	✓	1000	Nil	>1000	<800	N/A	>800	56	15	N/A	31	25	24	28	479	479	450	519	519	564	531	663	633	407	429	461	6.8	10.5	8.4	20	8	642	696	3,300	3,070
38	Dubbo	Two Part	210	210	✓	✓	Nil	Nil	All	All	N/A	N/A	52	52	N/A	N/A	46	54	52	3,250	2,430	2,510	472	472	448	386	454	436	462	522	495	1.5	1.5	2.1	57	55	503	459	14,500	14,900
39	Dungog (Reticulator)	Inclining Block	180	189	✓	✓	Nil	Nil	<220	<220	>220	>220	62	65	124	129	34	43	95	2,650	2,650	2,650	319	319	310	388	427	353	193	255	265	3.1	2.6	1.5	19	42	222	186	1,900	1,940
40	Eurobodalla (Unfiltered)	Two Part	220	220	✓	✓	Nil	Nil	All	All	N/A	N/A	80	100	N/A	N/A	85	99	95	1,670	5,000	5,000	364	385	403	358	344	363	369	395	426	1.1	2.7	2.5	34	40	206	183	17,400	17,800
41	Fish River WS (Bulk Supplier)		MAQ	MAQ	✓	✓	MAQ	MAQ									15	14	21										209	193	216	1.7	2.7	0.6					21,600	21,600
42	Forbes	Inclining Block	289	298	✓	✓	Nil	Nil	<600	<600	>600	>600	26	30	52	60	18	25	37	650	650	670	418	418	391	400	476	399	297	366	341	3.1	4.5	2.7	30	31	597	410	3,500	3,480
43	Gilgandra (Groundwater)	Two Part	275	235	✓	✓	Nil	Nil	All	All	N/A	N/A	30	45	N/A	N/A	33	29	29				421	421	427	321	366	359	488	521	358	-1.7	-1.5	2.8	45	41	488	426	1,300	1,330

Note: * Inclining block or multiple tariffs apply as shown in Table 6A. Bills and charges are in Dollars of the Year.

Table 6 - Water Supply - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																			RESIDENTIAL BILLS						COST RECOVERY											
		Type of Tariff	Access Charge (or Minimum)		Charge Independent of Land Value?		Allowance		Usage Charge Step (kL) Step 1		Usage Charge Step (kL) Step 2		Usage Charge Charges (c/kL) Step 1		Usage Charge Charges (c/kL) Step 2		Operating Cost (OMA)			Typical Developer Charge			Typical Residential Bill			Average Residential Bill			OMA + Depreciation			Economic Real Rate of Return			Residential Revenue from Usage Charges		Average Annual Residential Consumption (Potable)		Connected Properties	
			($)				(kL)										(c/kL)			($/ET)			($/assessment)			($/property)			($/property)			(%)			(% of residential bills)		kL/property			
		(1)	(2)		(3)		(4)		(5a)		(5b)		(5c)		(5d)		(6)			(7)			(8)			(9)			(11)			(12)			(13)		(14)		(15)	
		2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2001/02	2002/03	2003/04	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	01/02	02/03	03/04	01/02	02/03	03/04	02/03	03/04	02/03	03/04	02/03	03/04
44	Glen Innes	AMALGAMATED	175	88	✓	✓	Nil	Nil	All	N/A	N/A	N/A	80	N/A	N/A	N/A	95	76	92			50	338	338	345	362	345	358	466	361	370	-3.1	-1.0	-0.4	47	49	203	198	2,500	2,520
45	Gloucester	Two Part	385	230	✓	✓	350	Nil	>350	All	N/A	N/A	110	110	N/A	N/A	65	112	140	1,485	1,535	5,579	385	385	521	387	411	453	434	553	702	-0.8	0.2	-4.8	12	5	295	265	1,400	1,400
46	Goldenfields (Bulk Supplier)		eak Wee	eak Wee	✓	✓	Nil	Nil									39		41	2,000	2,000								272	294	323	4.0	2.2	-0.4					17,700	17,700
47	Goldenfields (Reticulator)	Two Part	204	204	✓	✓	Nil	Nil	All	All	N/A	N/A	102	104	N/A	N/A	83		80	2,000	2,000	2,000	514	514	553	465	458	513	682	564	620	-1.7	-0.7	1.5		21	304	335	10,000	9,380
48	Goldenfields (Combined)			204	✓	✓		Nil										65	73			2,000			553				772	593	652		0.8	-0.3	14	21		156	17,700	17,700
49	Gosford	Two Part	71	72	✓	✓	Nil	Nil	All	All	N/A	N/A	73	76	N/A	N/A	65	72	85	2,851	2,040	2,222	220	228	218	197	199	184	263	276	298	0.6	0.2	-1.1	72	69	214	193	63,900	65,700
50	Goulburn	AMALGAMATED	225	242	✓	✓	Nil	Nil	<400	N/A	>400	N/A	63	N/A	141	N/A	56	84	118	1,300	3,920	5,300	389	389	341	524	439	398	389	416	437	6.2	3.3	1.2	50	44	251	150	9,100	9,240
51	Grafton (Unfiltered)	AMALGAMATED	134		✓	✓	Nil		All	N/A	N/A	N/A	50	N/A	N/A	N/A	87	124					219	219		208	177		548	546		2.6	0.4		45		170	192	8,500	8,540
52	Griffith	Inclining Block	186	168	✓	✓	200	Nil	>200	<200	N/A	>200	37	25	N/A	47	35	34	35	2,110	2,110	2,110	398	398	404	506	567	518	556	548	568	0.8	3.4	0.7	50	51	774	596	7,700	7,650
53	Gundagai	Inclining Block	70	70	×	✓	Nil	Nil	<300	<300	>300	>300	60	63	80*	83	55	59	57	530	570	580	217	217	266	387	400	300	391	384	411	1.2	1.1	-0.6	6	80	244	311	980	980
54	Gunnedah (Groundwater)	440kL Allowance	270	278	×	×	440	440	>440	>440	N/A	N/A	61	63	N/A	N/A	25	27	36	2,500	3,390	3,392	347	347	278	373	440	388	262	284	296	5.1	5.9	3.6	30	24	565	357	4,200	4,220
55	Gunning (Groundwater)	AMALGAMATED	150		×	×	300		>360	N/A	N/A	N/A	140	N/A	N/A	N/A	25	46	44			4,254	150	150		364	377	377	200	244	238	3.4	3.0	3.2	5	3	192	186	330	330
56	Guyra	Inclining Block	232	232	✓	✓	Nil	Nil	<750	<750	>750	>750	80	88	145	160	77	107	78	555	555	555	372	372	386	363	379	376	347	402	360	-0.6	-1.3	-0.6	46	45	175	175	1,100	1,130
57	Harden (Reticulator)	300kL Allowance	435	453	✓	✓	300	300	>300	>300	N/A	N/A	97	100	N/A	N/A	69	116	61	2,000	2,000	2,000	659	684	619	517	997	909	692	1083	1107	-3.7	-2.3	-2.6	52	42	556	466	1,500	1,470
58	Hastings (Unfiltered)	Two Part	180	185	✓	✓	Nil	Nil	All	All	N/A	N/A	90	93	N/A	N/A	75	103	111	4,500	4,500	5,848	343	352	351	358	339	326	342	401	394	4.1	3.5	4.2	49	50	192	178	23,800	26,400
58-A	Hawkesbury	No WS	Nil				Nil																																	
59	Hay (Dual Supply)	Inclining Block	354	260	✓	✓	300	Nil	>300	<300	N/A	>300	77	50	N/A	80	15	16	25				354	354	360	329	338	352	441	481	485	-0.4	-1.3	-1.1	5	5	212	200	1,300	1,260
	Hay (Non Potable)	Unmetered							All	All	N/A	N/A	Nil	Nil	N/A	N/A																								
60	Holbrook	No WS																																						
61	Hume	AMALGAMATED	200	425	×	✓	400	400	>400	N/A	>1000	N/A	90	N/A	110	N/A	72	117	116	1,010	1,010	1,010	383	383	425	542	538	499	589	940	756	1.5	2.8	2.0	38	33	603	307	2,100	2,180
62	Hunter Water	Two Part	26	25	✓	✓	Nil	Nil	All	All	N/A	N/A	98	101	N/A	N/A	47	49	56	900	900	900	235	235	225				241	242			3.7	4.2			222	212	205,000	209,000
63	Inverell	Two Part	220	230	✓	✓	Nil	Nil	All	All	N/A	N/A	95	100	N/A	N/A	78	94	88	1,690	1,690	1,689	464	464	468	393	442	424	490	544	496	0.8	0.2	1.0	52	49	257	238	4,900	5,020
64	Jerilderie (Dual Supply)	300kL Allowance	403	406	×	×	300	300	>300	>300	>600	>600	100	100	90*	90	31	45	72		700	2,000	403	403	406	503	542	549	305	445	513	3.6	2.5	1.2	15	16	163	171	430	430
	Jerilderie (Non Potable)	300kL Allowance							>300	>300	N/A	N/A	37	37	N/A	N/A																								
65	Junee	No WS																																						
66	Kempsey (Groundwater)	Two Part	252	265	✓	✓	Nil	Nil	All	All	N/A	N/A	80	83	N/A	N/A	57	58	53	2,940	2,940	2,940	412	410	429	390	402	387	287	290	283	3.4	3.5	3.6	9	41	197	197	11,300	11,700
67	Kyogle	Two Part	175	175	✓	✓	Nil	Nil	All	All	N/A	N/A	86	100	N/A	N/A	76	85	83	1,000	1,000	1,000	364	326	362	340	276	248	404	406	364	0.2	-0.8	-1.6	31	52	176	187	1,600	1,760
68	Lachlan	Inclining Block	220	230	✓	✓	Nil	Nil	<300	<300	>300	>300	57	60	100	100	70	60	46				570	570	658	439	472	411	428	497	505	1.4	1.6	-0.7	58	52	479	548	2,700	2,680
69	Leeton	Inclining Block	244	175	✓	✓	Nil	Nil	<350	<400	>350	>400	43	46	51	55	40	36	39	2,500	2,600	2,600	503	503	461	430	534	497	407	442	481	3.6	8.8	3.4	56	60	568	578	3,400	3,440
70	Lismore (Reticulator)	Two Part	86	92	✓	✓	Nil	Nil	All	All	N/A	N/A	86	92	N/A	N/A	67	108	92	1,085	1,860	4,980	259	259	264	264	211	240	301	346	353	3.4	-0.4	1.5	64	68	155	186	13,100	13,400
71	Lithgow	Inclining Block*	260	260	✓	✓	Nil	Nil	<500	<500	>500	>500	38	51	100*	132	93	86	90	2,230	2,230	2,234	346	346	369	366	420	371	358	356	366	-0.3	-0.3	0.7	28	28	227	214	7,000	7,240
72	Lockhart	No WS																																						
73	North Coast Water (Unfiltered)	AMALGAMATED	191		✓	✓	Nil		All	N/A	N/A	N/A	69	N/A	N/A	N/A	43	59	54	3,460	4,000	4,140	335	323		317	320	339	373	381	399	6.7	23.5	8.9	38	48	192	231	10,400	10,500
74	Maclean	No WS																																						
75	Manilla	AMALGAMATED	368		✓	✓	400		>400	N/A	N/A	N/A	60	N/A	N/A	N/A	73	66	77	1,100	1,100	1,193	368	368		396	449	407	497	444	493	-6.6	2.2	-6.4	18	14	400	379	1,000	1,050
76	Merriwa	AMALGAMATED	315		✓	✓	Nil		All	N/A	N/A	N/A	40	N/A	N/A	N/A	50	43	73	1,000	1,000	1,000	458	478		434	440	441	562	558	557	-4.3	-2.8	-3.5	30	30	408	299	570	570
77	MidCoast (Manning - Unfiltered)	Two Part	168	168	✓	✓	Nil	Nil	All	All	N/A	N/A	71	71	N/A	N/A				2,800	3,500	3,500	307	329														0		20,500	
78	MidCoast (Great Lakes - Unfiltered)	Two Part	168	168	✓	✓	Nil	Nil	All	All	N/A	N/A	74	81	N/A	N/A				3,800	4,000	4,000	328	336																12,800	
79	MidCoast (Combined - Unfiltered)	Two Part	168	168	✓	✓	Nil	Nil	All	All	N/A	N/A	71	71	N/A	N/A	66	72	79			4,000			358	333	335	325	354	351	377	3.6	4.8	5.3	55	57	226	219	33,800	34,000
80	Moree Plains (Groundwater)	Two Part	295	265	✓	✓	Nil	Nil	All	All	N/A	N/A	50	56	N/A	N/A	48	55	82	3,270	3,270	3,270	502	534	411	438	600	564	309	516	438	9.0	-2.3	5.5	62	62	478	261	4,700	5,010
81	Mudgee (Unfiltered)	AMALGAMATED	300		✓	✓	Nil		All	N/A	N/A	N/A	90	N/A	N/A	N/A	59	67	76	3,160	3,160	3,160	706	706		427	541	520	389	422	409	3.0	4.3	3.3	53	55	313	281	4,900	5,050
82	Mulwaree	AMALGAMATED	287		✓	✓	Nil		<400	N/A	>400	N/A	87	N/A	N/A	N/A	119	156	226	2,500	2,500	2,500	425	425		590	588	603	661	700	798	0.1	0.6	-0.1	39	39	163	98	490	490
83	Murray (Dual Supply)	Two Part	400	240	✓	✓	250	Nil	All	All	N/A	N/A	50	56	N/A	N/A	31	33	41	700	700	700	409	409	373	466	472	511	371	430	421	6.5	5.6	7.1	12	17	267	237	1,900	1,930
	Murray (Non Potable)	Two Part							All	All	N/A	N/A	Nil	38	N/A	N/A																								
84	Murrumbidgee (Groundwater)	Two Part	180	180	×	✓	Nil	Nil	All	All	N/A	N/A	20	20	N/A	N/A	10	19	21	1,000	1,000	1,000	321	321	296	329	337	347	207	321	307	4.0	1.6	2.4	49	50	707	581	770	770
85	Murrurundi	AMALGAMATED	451		✓	✓	400		All	N/A	N/A	N/A	113	N/A	N/A	N/A	74	125	89	400	400	400	451	451		461	508	499	401	438	360	2.9	4.2	5.8			172	176	600	610
86	Muswellbrook	Two Part	123	127	✓	✓	Nil	Nil	All	All	N/A	N/A	97	107	N/A	N/A	56	66	65	2,370	2,370	2,370	409	445	494	372	487	442	397	450	455	4.2	8.5	7.9	77	75	345	343	4,800	4,900
87	Nambucca (Groundwater)	Two Part	145	86	✓	✓	Nil	Nil	All	All	N/A	N/A	65	90	N/A	N/A	50	58	61	3,200	3,300	3,695	299	299	254	233	221	233	217	241	251	3.8	5.1	4.5	41	45	238	186	5,800	5,930

Table 6 - Water Supply - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																			RESIDENTIAL BILLS						COST RECOVERY											
		Type of Tariff	Access Charge (or Minimum)		Charge Independent of Land Value?		Allowance		Usage Charge Step (kL) Step 1		Usage Charge Step (kL) Step 2		Usage Charge Charges (c/kL) Step 1		Usage Charge Charges (c/kL) Step 2		Operating Cost (OMA)			Typical Developer Charge			Typical Residential Bill			Average Residential Bill			OMA + Depreciation			Economic Real Rate of Return			Residential Revenue from Usage Charges		Average Annual Residential Consumption (Potable)		Connected Properties	
			($)				(kL)										(c/kL)			($/ET)			($/assessment)			($/property)			($/property)			(%)			(% of residential bills)		kL/property			
		(1)	(2)		(3)		(4)		(5a)		(5b)		(5c)		(5d)		(6)			(7)			(8)			(9)			(11)			(12)			(13)		(14)		(15)	
		2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2001/02	2002/03	2003/04	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	01/02	02/03	03/04	01/02	02/03	03/04	02/03	03/04	02/03	03/04	02/03	03/04
88	Narrabri (Groundwater)	Two Part	153	153	✓	✓	Nil	Nil	All	All	N/A	N/A	33	33	N/A	N/A	17	16	20	2,200	2,200	2,200	395	395	338	332	418	324	256	242	248	4.8	6.0	5.1	26	27	734	561	4,100	4,170
89	Narrandera (Groundwater)	Two Part	236	236	✓	✓	Nil	Nil	All	All	N/A	N/A	47	51	N/A	N/A	28	30	32	1,000	1,000	1,000	516	523	520	489	560	475	277	315	324	7.8	7.6	4.3	53	55	608	556	2,000	2,030
90	Narromine (Groundwater)	Two Part	200	200	✓	✓	Nil	Nil	All	All	N/A	N/A	45	50	N/A	N/A	39	39	40	500	500	500	458	458	532	355	394	415	371	438	391	-0.9	-2.0	1.9	42	56	574	663	2,000	2,010
91	Nundle (Groundwater)	AMALGAMATED	497		✓	✓	350		>350	N/A	N/A	N/A	142	N/A	N/A	N/A	121	108	76				480	497		525	527	529	912	687	594	-7.0	-2.7	-1.4	6	3	321	331	210	220
92	Oberon (Reticulator)	Two Part	188	91	✓	✓	Nil	Nil	All	All	N/A	N/A	94	97	N/A	N/A	56	48	57	1,100	1,100	1,100	416	426	287	353	365	338	538	588	356	1.9	2.2	3.0	53	49	253	202	1,200	1,250
93	Orange	Two Part	300	280	✓	✓	152	Nil	All	All	N/A	N/A	52	55	N/A	N/A	45	52	81	4,490	4,850	5,742	380	379	393	400	425	375	373	383	412	0.4	1.4	2.7	16		303	206	13,900	14,600
94	Parkes	Inclining Block	340	350	✓	✓	Nil	Nil	<365	<365	>365	>365	29	30	111	114	31	34	36	3,650	3,760	3,873	501	501	474	514	493	457	575	611	627	2.5	2.5	3.0	38	31	415	378	5,600	5,570
95	Parry (Groundwater)	AMALGAMATED	308		✓	✓	350		>350	N/A	N/A	N/A	81	N/A	N/A	N/A	52	64	88	550	600	612	308	308		430	409	422	388	416	420	1.3	0.9	1.2	9	10	278	159	1,800	1,820
96	Pristine Waters (Unfiltered)	AMALGAMATED	190		✓	✓	Nil		All	N/A	N/A	N/A	54	N/A	N/A	N/A	65	81	88	2,450	2,450	2,450	321	321		394	408	422	337	416	441	2.4	2.6	-0.9	23	24	243	235	1,900	1,850
97	Queanbeyan (Reticulator)	Inclining Block	222	230	✓	✓	Nil	Nil	<176	<176	>176	>176	73	95	110	135	79	114	101	780	780	780	433	433	377	378	436	354	420	449	318	-0.1	2.1	0.4	57	51	251	155	14,300	15,800
98	Quirindi (Groundwater)	AMALGAMATED	200		✓	✓	400		>400	N/A	N/A	N/A	50	N/A	N/A	N/A	35	41	49			135	200	200		328	305	269	266	316	300	2.0	0.1	-0.2	19	30	373	299	1,300	1,350
99	Richmond Valley	Inclining Block	229	215	✓	✓	Nil	Nil	<275	<200	>275	>200	40	55	60*	80	51	77	73	2,192	2,192	2,334	262	262	385	309	244	265	405	437	409	2.0	-0.4	2.0	44	48	286	275	6,500	6,520
100	Riverina (Groundwater)	Two Part	80	80	✓	✓	Nil	Nil	All	All	N/A	N/A	65	65	N/A	N/A	33	32	36	1,300	1,300	1,400	341	341	310	349	391	349	337	349	343	3.0	4.6	3.9	78	76	402	354	25,400	27,200
101	Rous (Bulk Supplier)			94	✓	✓	Nil	Nil	N/A	All	N/A	N/A	N/A	87	N/A	N/A	36	57	47	1,260	3,120	3,193							197	232	208	0.5	-0.8	1.4					33,100	35,800
102	Rylstone	AMALGAMATED	407		✓	✓	370		>370	N/A	N/A	N/A	110	N/A	N/A	N/A	112	109	100	1,350	1,350	1,350	393	407		390	431	427	618	578	614	-4.5	-2.2	-3.2	6	3	226	261	1,300	1,290
103	Scone (Unfiltered)	AMALGAMATED	193		✓	✓	Nil		All	N/A	N/A	N/A	94	N/A	N/A	N/A	37	37	44	2,670	2,670	2,670	514	514		398	491	452	325	381	371	4.4	5.7	5.6	58	53	341	291	2,600	2,640
104	Severn (Unfiltered)	AMALGAMATED	236		✓	✓	Nil		All	N/A	N/A	N/A	55	N/A	N/A	N/A	108	126	160				256	309		237	248	336	306	340	383	-4.1	-6.6	-3.4	25	23	133	133	190	190
105	Shoalhaven	Two Part	212	130	✓	✓	Nil	Nil	<300	All	>300	N/A	20	60	70	N/A	46	44	43	2,240	2,300	2,370	254	254	268	268	261	267	284	281	275	3.5	4.0	4.3	19	22	212	230	42,400	42,900
106	Singleton	Two Part	194	194	✓	✓	Nil	Nil	All	All	N/A	N/A	77	77	N/A	N/A	53	50	58	2,520	2,600	2,662	494	494	425	530	547	417	434	425	424	5.3	7.8	9.8	57	56	390	301	5,300	5,510
107	Snowy River (Unfiltered)	Two Part	253	262	✓	✓	Nil	Nil	All	All	N/A	N/A	41	42	N/A	N/A	83	58	31	2,500	2,500	2,500	373	382	511	345	328	387	266	295	313	1.9	0.8	1.8	17	34	313	591	3,400	3,380
108	Sydney Water	Two Part	75	78	✓	✓	Nil	Nil	All	All	N/A	N/A	98	101	N/A	N/A	59	62	87	1,800	1,800	1,800	314	314	289				316	325	320		2.8	4.1			255	224	#######	#######
109	Tallaganda (Unfiltered)	AMALGAMATED	192		✓	✓	Nil		All	N/A	N/A	N/A	90	N/A	N/A	N/A	56	70	69	3,000	3,060	3,060	375	403		308	367	407	349	421	399	0.3	1.2	1.8	43	41	235	223	540	570
110	Tamworth	AMALGAMATED	128	138	✓	✓	Nil	Nil	All	N/A	N/A	N/A	65	N/A	N/A	N/A	48	56	52	3,350	3,450	3,520	361	373	352	406	392	311	472	504	438	0.5	0.7	2.4	68	64	376	305	14,900	15,200
111	Temora	No WS																																						
112	Tenterfield	Two Part	267	278	✓	✓	Nil	Nil	All	All	N/A	N/A	68	71	N/A	N/A	83	122	98	1,500	1,500	1,500	397	397	423	415	411	322	484	554	513	-1.6	-3.2	1.6	29	31	190	204	1,700	1,920
113	Tumbarumba	Inclining Block	310	310	✓	✓	500	Nil	>500	<500	N/A	>500	77	55	N/A	87	27	48	55	400	400	400	310	310	453	379	393	473	335	371	394	2.9	1.5	5.5	3	26	324	261	1,000	1,020
114	Tumut	Inclining Block	277	296	✓	✓	Nil	Nil	<400	<400	>400	>400	55	59	77	83	43	42	31	2,790	2,790	2,867	457	457	477	388	426	434	381	413	452	2.8	2.9	2.0	34	30	325	306	4,000	3,990
115	Tweed	Two Part	106	106	✓	✓	Nil	Nil	All	All	N/A	N/A	62	68	N/A	N/A	47	62	62	4,000	4,100	4,325	233	238	255	245	239	212	294	324	336	5.8	2.8	3.4	61	62	213	219	26,000	26,800
116	Uralla	Two Part	325	186	✓	✓	275	Nil	>275	All	N/A		50	70	N/A	N/A	82	128	113	1,100		350	325	325	320	380	362	364	371	441	391	-0.4	-2.9	-0.4	7	8	187	192	1,300	1,300
116-A	Urana	No WS																																						
117	Wagga Wagga	No WS																																						
118	Wakool	300kL Allowance	245	685	×	✓	300	300	>300	>300	N/A	N/A	65	65	N/A	N/A	35	34	39			300	382	393	685	571	490	559	568	533	582	0.1	2.3	2.2	3	3	528	532	1,300	1,280
119	Walcha	Two Part	324	321	✓	✓	Nil	Nil	All	All	N/A	N/A	87	91	N/A	N/A	110	134	128				465	465	468	463	480	497	435	493	502	0.4	-0.1	-0.3	39	38	160	162	830	830
120	Walgett (Dual Supply)	Unmetered	565	565	✓	✓											33	33	46				538	565	565	634	702	715	842	862	861	-3.1	-2.0	-1.9	11	12	448	146	1,400	1,410
	Walgett (Non Potable)	Unmetered							All	All	N/A	N/A	Nil	Nil	N/A	N/A																								
121	Warren (Dual Supply)	650kL Allowance	365	365	✓	✓	650	650	>650	>650	N/A	N/A	54	60	N/A	N/A	42	32	32				365	365	365	411	440	444	457	454	408	-0.6	0.2	0.6	21	20	247	199	930	970
	Warren (Non Potable)	Unmetered							All	All	N/A	N/A	Nil	Nil	N/A	N/A																								
122	Weddin	No WS																																						
123	Wellington	Inclining Block	420	380	×	✓	350	Nil	>350	<500	N/A	>500	100	65	N/A	85	90	88	91	1,400	1,400	1,481	857	857	574	620	693	538	513	587	483	0.7	2.2	0.9	20	21	438	298	2,500	2,870
124	Wentworth (Dual Supply)	Inclining Block	485	300	✓	✓	250	Nil	>250	<250	N/A	>250	210	100	N/A	250	28	24	32	2,120	2,120	2,375	485	485	524	577		653	726	726	832	0.3	1.9	0.8	38	38	248	224	1,500	1,600
	Wentworth (Non Potable)	Inclining Block							All	<250	N/A	>250	Nil	30	N/A	50																								
125	Wingecarribee	Inclining Block*	197	197	✓	✓	Nil	Nil	<150	<150	>150	>150	53	53	143*	143	55	50	55	2,510	2,510	2,510	406	406	368	406	407	401	299	286	263	6.3	5.0	5.6	58	49	241	214	16,700	17,500
126	Wyong	Two Part	82	83	✓	✓	Nil	Nil	All	All	N/A	N/A	73	76	N/A	N/A	59	71	77	2,500	2,500	2,500	218	226	225	233	209	206	294	315	313	-2.9	7.2	4.1	67	68	197	188	54,700	56,400
127	Yallaroi (Groundwater)	AMALGAMATED	540		×	×	450		>450	N/A	N/A	N/A	71	N/A	N/A	N/A	52	42	56				702	715		491	530	557	453	439	559	2.0	2.6	-0.1	7	5	697	409	730	720
128	Yarrowlumla (Groundwater)	AMALGAMATED	292		✓	✓	280		>280	N/A	N/A	N/A	85	N/A	N/A	N/A	43	58		2,020	2,080	2,145	292	292		425	434		267	347		3.0	2.4		24		267	250	950	950
129	Yass Valley	Two Part	200	171	✓	✓	Nil	Nil	All	All	N/A	N/A	100	110	N/A	N/A	75	88	96	1,500	1,500	8,283	350	401	396	461	389	410	439	426	421	1.3	0.8	2.8	16	52	201	204	2,600	2,880
130	Young (Reticulator)	265kL Allowance	400	420	✓	✓	265	265	>265	>265	N/A	N/A	120	125	N/A	N/A	60	82	62	2,000	2,000	2,000	419	430	420	502	548	530	318	568	629	-1.3	1.9	1.6	33	30	290	264	3,800	3,910

Table 6 - Water Supply - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																RESIDENTIAL BILLS						COST RECOVERY									
		Type of Tariff	Access Charge (or Minimum) ($)		Charge Independent of Land Value?	Allowance (kL)		Usage Charge Step (kL) Step 1		Usage Charge Step (kL) Step 2		Usage Charge Charges (c/kL) Step 1		Usage Charge Charges (c/kL) Step 2		Operating Cost (OMA) (c/kL)			Typical Developer Charge ($/ET)			Typical Residential Bill ($/assessment)			Average Residential Bill ($/property)			OMA + Depreciation ($/property)			Econmic Real Rate of Return (%)			Residential Revenue from Usage Charges (% of residential bills)		Average Annual Residential Consumption (Potable) kL/property		Connected Properties	
		(1)	(2)		(3)	(4)		(5a)		(5b)		(5c)		(5d)		(6)			(7)			(8)			(9)			(11)			(12)			(13)		(14)		(15)	
		2004/05	2003/04	2004/05	2003/04 2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2003/04	2004/05	2001/02	2002/03	2003/04	2002/03	2003/04	2004/05	2002/03	2003/04	2004/05	2001/02	2002/03	2003/04	01/02	02/03	03/04	01/02	02/03	03/04	02/03	03/04	02/03	03/04	02/03	03/04
131	Albury City	Inclining Block	153	76	✓	Nil	<300	<275	>300	>275	15	44	48	88	37	42	42	1,490	1,490	4,592	224	201	225	263	230	221	304	375	373	0.0	0.1	1.0	36	43	378	307	21,500	
132	Clarence Valley	Two Part	191	160	✓	Nil	All	All	N/A	N/A	69	77	N/A	N/A	63	88	54	3,460	4,000	4,140	336	341	321	279	269		442	452		4.6	12.1	8.9	39	48	188	216	20,900	
133	Coffs Harbour	Two Part	184	193	✓	Nil	All	All	N/A	N/A	125	131	N/A	N/A	74	75	79	2,500	5,550	5,747	384	420	441	333	335	355	277	265	299	1.3	5.7	5.3	63	64	183	189	22,000	
134	Corowa	Inclining Block	212	140	✓	Nil	>450	<300	N/A	>300	50	10	N/A	50	32	43	46			444	366	317	350	349	387	302	375	481	441	1.2	1.8	0.6	22	16	772	583	4,350	
135	Glen Innes Severn	Inclining Block	175	88	✓	Nil	All	<450	N/A	>450	80	130	N/A	195	96	80	97				333	329	339	353	339	357	455	359	371	-3.1	-1.4	-0.6	46	47	198	193	2,690	
136	Goulburn Mulwaree	Inclining Block	225	242	✓	Nil	<400	<400	>400	>400	63	66	141	148	59	88	124	1,360	3,849	5,160	373	318	339	527	446	408	403	431	455	5.9	3.2	1.1	49	43	246	147	9,690	
137	Greater Hume	400kL Allowance	200	425	×	400	>400	>400	>1000	>1000	90	90	110	110	58	85	92	1,303	1,303	1,303	268	200	425	402	408	377	430	656	575	2.1	3.3	1.0	37	32	475	290	1,450	
138	Gwydir	320kL Allowance	344	391	✓	320	>320	>320	N/A	N/A	170	175	N/A	N/A	51	37					605	368	416	419	471		426	370		1.0	3.3		18	5	490	334	1,450	
139	Liverpool Plains	300kL Allowance	200	174	✓	300	>400	>300	N/A	N/A	50	60	N/A	N/A	42	53	64			3,390	200	200	174	369	351	331	313	356	342	1.8	0.6	0.6	6	30	330	247	2,220	
140	Mid Western Regional	Two Part	300	265	✓	Nil	All	All	N/A	N/A	90	96	N/A	N/A	69	75	81	2,798	2,798	2,798	500	549	531	419	519	501	435	453	450	1.5	3.0	2.0	44	44	296	277	6,300	
141	Palerang	Inclining Block	292	130	✓	Nil	>280	<200	N/A	>200	85	85	N/A	90	48	62	69	2,392	2,452	2,493	270	292	336	381	408		298	375		2.0	1.9	1.8	31	41	254	240	1,520	
142	Tamworth Regional	Inclining Block*	128	138	✓	Nil	All	<450	N/A	>450	65	70	N/A	75	51	60	58	3,350	3,450	3,520	349	322	348	406	398	330	467	491	439	0.0	0.7	1.7	58	54	361	294	18,200	
143	Upper Hunter	Two Part	193	200	✓	Nil	All	All	N/A	N/A	94	97	N/A	N/A	44	49	54	2,108	2,108	2,108	456	444	459	412	485	456	373	417	400	2.8	4.2	4.2	58	53	330	277	3,660	
144	Upper Lachlan	Inclining Block	375	375	✓	Nil	<300	<300	>300	>300	82	90	98	100	62	85	108	760	780	1,602	582	528	543	553	507	471	329	384	417	3.9	3.5	3.9	4	26	248	187	1,430	
145	Warrumbungle	535kL Allowance	465	345	✓	535	>683	>535	N/A	N/A	68	78	N/A	N/A	78	108	86	1,000	1,000	1,000	465	465	345	442	451	454	538	598	535	-1.4	-2.9				292	311	3,000	

Table 6A - Water Supply - 2004/05 Residential Inclining Block or Multiple Tariffs

	WATER UTILITY	Town	Tariff Type	Access Charge ($)	Access Charge Independent of Land Value ?	Allowance (kL)	Usage Range (kL)	Tariff
			(1)	(2)	(3)	(4)	(5)	(6)
1	Albury		Inclining Block	76	✓	Nil	Up to 275 kL	44
							>275 kL	88
2	Armidale Dumaresq	Armidale	Inclining Block	180	✓	Nil	Up to 200 kL	75
							201 kL to500 kL	100
							>500 kL	115
		Armidale, untreated	Inclining Block	180	✓	Nil	Up to 200 kL	37
							201 kL to500 kL	65
							>500 kL	80
3	Ballina (Reticulator)	Ballina	Inclining Block	90	✓	Nil	Up to 350kL	77
							> 350 kL	100
4	Balranald (Dual Supply)	Balranald	Two Part	165	✓	Nil	All	55
		Balranald & Euston, Raw	200 kL Allowance	175	✓	200	>200 kL	20
6	Bathurst Regional	Filtered	45 kL Allowance	250	✓	45	46 kL to 300 kL	50
							> 300 kL	80
		Raw	45 kL Allowance		✓	45	46 kL to 300 kL	35
							> 300 kL	65
9	Berrigan (Dual Supply)	Berrigan,Barooga,Finley(Potable)	250 kL Allowance	489	✓	250	>250 kL	55
		Berrigan,Barooga,Finley(Non-Potable)	500 kL Allowance	489		500	>500 kL	27
		Tocumwal (Filtered)	750kL Allowance	489	✓	750	>750 kL	43
13	Bogan	Nyngan	Inclining Block	195	✓	Nil	Up to 450kL	60
							>450kL	92
14	Bombala	Bombala	Inclining Block	373	✓	Nil	Up to 350kL	43
							>350 kL	93
		Delegate	Unmetered	182	✓			
17	Brewarrina	Brewarrina	Unmetered	648	✗			
		Goodooga	Unmetered	532	✗			
18	Australian Inland	Broken Hill, Sunset Strp, Menindi	Inclining Block	185	✓	Nil	0 kL to 200 kL	48
		Filtered water					201 kL to 400 kL	75
							> 400 kL	205
		Silverton	Inclining Block	185	✓	Nil	0 kL to 200 kL	36
		Chlorinated Water					201 kL to 400 kL	63
							> 400 kL	193
		Pipeline Customers or Unfiltered Water	Inclining Block	185	✗	Nil	0 kL to 200 kL	25
							201 kL to 400 kL	52
							> 400 kL	182
20	Cabonne	Molong	Inclining Block	470	✓	Nil	<300 kL	71
							301 kL to 500 kL	115
							>500 kL	165
		Cumnock	Inclining Block	420	✓	Nil	<300 kL	123
							301 kL to 500 kL	155
							>500 kL	165
		Yeoval	Inclining Block	310	✓	Nil	<300 kL	36
							301 kL to 500 kL	60
							>500 kL	145
		Delgany	300 kL Allowance	480	✓	Nil	<300 kL	103
							301 kL to 500 kL	160
							>500 kL	210
21	Carrathool	Hillston	500 kL Allowance	315	✓	500	500 kL to 1,000 kL	33
							>1,000 kL	47
		Carrathool	500 kL Allowance	584	✓	500	500 kL to 1,000 kL	29
							>1,000 kL	45
		Goolgobi/Merriwagga	500 kL Allowance	625	✓	500	500 kL to 1,000 kL	29
							>1,000 kL	45
		Rankins Springs	500 kL Allowance	525	✓	500	500 kL to 1,000 kL	42

	WATER UTILITY	Town	Tariff Type	Access Charge ($)	Access Charge Independent of Land Value ?	Allowance (kL)	Usage Range (kL)	Tariff (c/kL)
			(1)	(2)	(3)	(4)	(5)	(6)
22	Central Darling	Wilcannia (Filtered+Raw)	Two Part	500	✓	Nil	All	290
		Wilcannia (Raw)	Unmetered	400	✓			
		White Cliffs, Raw	Two Part	400	✓	Nil	All	330
		Ivanhoe (Filtered+Raw)	Two Part	100	✓	Nil	All	290
		Ivanhoe (Raw Only)	Two Part	160	✓	Nil	All	125
23	Central Tablelands	Central Tablelands	Two Part	124	✓	Nil	All	112
		Quandialla	Inclining Block	464	✓	Nil	Up to 200 kL/quarter	120
							after 200 kL/quarter	200
24	Cobar	Cobar	Inclining Block	300	✓	Nil	Up to 500kL	65
							>500kL	130
		Nymagee Village	Unmetered	500	✓			
		Mt Hope	Unmetered	600	✓			
		Euabalong Village	Unmetered	500	✓			
30	Coonamble Shire	Coonamble	809 kL Allowance	194	✗	808	>809 kL	24
		Gulargambone	879 kL Allowance	380	✗	864	>879 kL	44
		Quambone	591 kL Allowance	290	✓	591	>591 kL	49
33	Corowa	Corowa	Inclining Block	140	✓	Nil	Up to 300 kL	10
							> 300 kL	50
		Mulwala	Inclining Block	120	✓	Nil	Up to 300 kL	10
							300 kL to 80,000 kL	40
							>80,000 kL	31
		Howlong	400 kL Allowance	200	✓	400	400 to 1000 kL	90
							>1000kL	110
		Balldale, Non Potable	Two Part	120	✓	Nil	All	50
34	Cowra	Corowa	Inclining Block	330	✓	Nil	Up to 500 kL	28
							501 to 1,000 kL	57
							>1000kL	108
		Raw Water	Inclining Block	134	✓	Nil	Up to 500 kL	26
							>500 kL	36
37	Deniliquin	Deniliquin, Filtered	Inclining Block	460	✓	Nil	Up to 800 kL	15
							800 to 1000kL	31
							>1000 kL	59
		Deniliquin, Raw	Flat rate	200	✓	Nil	Unrestricted	
39	Dungog (Unfiltered)	Dungog	Inclining Block	189	✓	Nil	Up to 220 kL	65
							> 220 kL	129
		Clarence Town	Inclining Block	189	✓	Nil	Up to 220 kL	66
							> 220 kL	129
		Patterson District	Inclining Block	258	✓	Nil	Up to 220 kL	80
							> 220 kL	172
		Gresford	Inclining Block	326	✓	Nil	Up to 220 kL	72
							> 220 kL	176
42	Forbes	Forbes	100kL Env Allowance	298	✓	Nil	100 to 600 kL	30
							>600kL	60
43	Gilgandra (Groundwater)	Gilgandra	Two Part	235	✓	Nil	All	45
		Tooraweenah	Two Part	65	✓	Nil	All	100
44	Glen Innes Severn	Glen Innes, Severn	Inclining Block	88	✓	Nil	Up to 450 kL	130
							>450 kL	195
		Severn	Two Part	258	✓	Nil	All	60
45	Gloucester	Gloucester	Two Part	230	✓	Nil	All	110
		Barrington	Two Part	200	✓	Nil	All	100
50	Goulburn	Goulburn	Inclining Block	242	✓	Nil	Up to 400 kL	66
							>400 kL	148
		Marulan	Inclining Block	309	✓	Nil	Up to 400 kL	94
							>400 kL	192
52	Griffith	Griffith (Filtered)	Inclining Block	168	✓	Nil	Up to 200kL	25
							>200 kL	47

NOTE: This Table only lists utilities with inclining block or multiple tariffs for residential customers. The residential tariffs for all utilities are shown in Table 6.

* This allowance is subject to owners maintaining and watering the nature reserve.

Table 6A - Water Supply - 2004/05 Residential Inclining Block or Multiple Tariffs

	WATER UTILITY	Town	Tariff Type	Access Charge ($)	Access Charge Independent of Land Value ?	Allowance (kL)	Usage Range (kL)	Tariff
			(1)	(2)	(3)	(4)	(5)	(6)
53	Gundagai		Inclining Block	70	✓	Nil	Up to 300kL	63
							301 to 500 kL	83
							> 500 kL	125
54	Gunnedah (Groundwater)	Gunnedah	440 kL Allowance	278	×	440	>440 kL	63
		Curlewis	440 kL Allowance	314	✓	440	>440 kL	63
		Mullaley	440 kL Allowance	572	✓	440	>440 kL	63
		Tambar Springs	440 kL Allowance	652	✓	440	>440 kL	63
56	Guyra	Guyra	Inclining Block	232		Nil	Up to 750 kL	88
							>750 kL	160
		Tingha	Two Part	205		Nil	All	140
		Tingha Rural	Two Part	185		Nil	All	140
59	Hay (Dual Supply)	Hay (Filtered)	Inclining Block	60	✓	Nil	Up to 300 kL	50
							>300 kL	80
		Hay (Unfiltered)	Unmetered	200	✓			
64	Jerilderie (Dual Supply)	Jerilderie, Filtered	300 kL Allowance	406	×	300	300 to 600 kL	100
							600 to 1200 kL	90
							>1200 kL	80
		Jerilderie, Raw	300 kL Allowance		×	300	>300kL	37
68	Lachlan	Condoblin	Inclining Block	230	✓	Nil	Up to 300 kL	60
							>300 kL	100
69	Leeton	Leeton, Whitton, Murrami	Inclining Block	175	✓	Nil	Up to 350 kL	46
							>350 kL	55
71	Lithgow		Inclining Block	260	✓	Nil	Up to 500 kL	51
							501 kL to2,000 kL	132
							2001 kL to 5000 kL	150
							>5,000 kL	202
80	Moree Plains Shire	Moree, Mungindi, Boggabilla, Pallamallawa	Potable,Two Part	265	✓	Nil	All	56
		Garah, Boomi, Boggabilla, Gurley, Weemalah	Non-Potable, Two Part	265	✓	Nil	All	40
83	Murray	Murray, Filt	Two Part	177	✓	Nil	All	56
		Murray, Raw	Two Part	63	✓	Nil	All	38
84	Murrumbidgee	Darlington Point	Two Part	180	✓	Nil	All	20
		Coleambally	Two Part	200	✓	Nil	All	20
88	Narrabri (Groundwater)	Narrabri	Two Part	153	✓	Nil	All	33
		Gwabegar	Two Part	175	✓	Nil	All	50
		Wee Wa	Two Part	132	✓	Nil	All	51
		Boggabri	Two Part	316	✓	Nil	All	60
		Bellata	Two Part	316	✓	Nil	All	60
		Pilliga	Two Part	200	✓	Nil	All	50
90	Narromine (Groundwater)	Narromine/Trangie	Two Part	200	✓	Nil	All	50
		Tomingly	Two Part	320	✓	Nil	All	50
94	Parkes	Parkes	Inclining Block	350	✓	Nil	Up to 365kL	30
							>365 kL	114
97	Queanbeyan	Queanbeyan	Inclining Block	230	✓	Nil	Up to 176 kL	95
							>176kL	135
99	Richmond Valley	all	Inclining Block	215	✓	Nil	Up to 200 kL	55
							>200 kL	80
100	Riverina (Groundwater)	Wagga Wagga	Two Part	80	✓	Nil	All	65
		Shires	Two Part	100	✓	Nil	All	77
106	Singleton	Singleton	Two Part	194	✓	Nil	All	77
		Mt Thorley	Two Part	510	✓	Nil	All	150
		Jerry's/Broke Plains	Two Part	194	✓	Nil	All	120

	WATER UTILITY	Town	Tariff Type	Access Charge ($)	Access Charge Independent of Land Value ?	Allowance (kL)	Usage Range (kL)	Tariff
			(1)	(2)	(3)	(4)	(5)	(6)
110	Tamworth	Tamworth	Inclining Block	138	✓	Nil	Up to 450 kL	70
							451 to 900 kL	75
							> 900kL	80
		Calala Backwash Water					All	17
		Raw Water					Up to 450 kL	50
							451 to 900 kL	55
							> 900 kL	60
		Dungowan Dam (if main crosses property)	Inclining Block	69	✓	Nil	Up to 450 kL	25
		Raw Water					451 to 900 kL	55
							> 900 kL	60
		Dungowan Dam (if main does not cross property)	Inclining Block	138	✓	Nil	Up to 450 kL	50
		& Conners Creek Dam (Raw Water)					451 to 900 kL	55
							> 900 kL	60
112	Tenterfield	Tenterfield	Two Part	278	✓	Nil	All	71
		Jennings	Two Part	275	✓	Nil	All	74
		Urbenville	Two Part	310	✓	Nil	All	58
113	Tumbarumba (Unfiltered)	Tumbarumba	Inclining Block	310	✓	Nil	Up to500 kL	55
							>500kL	87
		Khancoban, metered	IncliningBlock	350	✓	Nil	Up to500 kL	60
							>500kL	90
114	Tumut	Tumut	Inclining Block	296	✓	Nil	Up to 400 kL	59
							>400 kL	83
116	Uralla	Uralla	Two Part	186	✓	Nil	All	70
		Bundarra	Two Part	470	✓	Nil	All	80
118	Wakool	Barham, Murray Downs, Tooleybuc, Moulamein(Filtered +	300 kL Allowance	360+255	×	300	>300 kL	65
		Wakool , Murray Downs, Koraleigh (Raw)	600 kL Allowance	360	×	600	>600 kL	45
119	Walcha	Treated	Two Part	321	✓	Nil	All	91
		Untreated	Two Part	41	✓	Nil	All	38
120	Walgett	Walgett Shire Water Charge	Unmetered	565	✓			
		Carinda Water Charge	Unmetered	265	✓			
		Carinda Bore Water Charge	Unmetered	253	✓			
		Rowena Water Charge	Unmetered	304	✓			
121	Warren (Dual Supply)	Warren	650kL Allowance	365	✓	650	>650kL	60
		Nevertire	650kL Allowance	414	✓	650	>650kL	70
		Collie	400kL Allowance	336	✓	400	>400kL	126
123	Wellington	Wellington, Geurie	Inclining Block	380	✓	Nil	Up to 500 kL	65
							501 kL to 3000kL	85
							>3000kL	95
124	Wentworth (Dual Supply)	Filtered	Inclining Block	200	✓	Nil	Up to 250 kL	100
							>250kL	250
		Raw	Inclining Block	100	✓	Nil	Up to 250 kL	30
							>250kL	50
125	Wingecarribee		Inclining Block	197	✓	Nil	Up to 150 kL	53
							151 kL to 5,000 kL	143
							>5,000 kL	169
129	Yass Valley	Yass, Bowning, Binalong & Rural Areas	Two Part	171	✓	Nil	All	110
		Murrumbateman	Two Part	150	✓	Nil	All	110
131	Albury City		Inclining Block	76	✓	Nil	Up to 275 kL	44
							>275 kL	88

Table 6A - Water Supply - 2004/05 Residential Inclining Block or Multiple Tariffs

	WATER UTILITY	Town	Tariff Type	Access Charge ($)	Access Charge Independent of Land Value ?	Allowance (kL)	Usage Range (kL)	Tariff
			(1)	(2)	(3)	(4)	(5)	(6)
132	Clarence Valley	Coutts Crossing	Two Part	175	✓	Nil	All	60
		Waterview-Sealands-Eatonsville	Two Part	175	✓	Nil	All	68
		Wooli	Two Part	350	✓	Nil	All	74
		Minnie Water	Two Part	310	✓	Nil	All	74
		Glenreagh	Two Part	175	✓	Nil	All	74
		Grafton City	Two Part	134	✓	Nil	All	54
		Outside Grafton City	Two Part	200	✓	Nil	All	54
		North Coast Water	Two Part	160	✓	Nil	All	74
134	Corowa	Corowa	Inclining Block	140	✓	Nil	Up to 300 kL	10
							> 300 kL	50
		Mulwala	Inclining Block	120	✓	Nil	Up to 300 kL	10
							300 kL to 80,000 kL	40
							>80,000 kL	31
		Howlong	400 kL Allowance	200	✓	400	400 to 1000 kL	90
							>1000kL	110
		Balldale, Non Potable	Two Part	120	✓	Nil	All	50
							>1000kL	110
		Balldale, Non Potable	Two Part	120	✓	Nil	All	50
136	Goulburn Mulwaree	Goulburn	Inclining Block	242	✓	Nil	Up to 400 kL	66
							>400 kL	148
		Marulan	Inclining Block	309	✓	Nil	Up to 400 kL	94
							>400 kL	192
137	Greater Hume	Hume	400 kL Allowance	425	✓	400	>400kL	90
		Culcairn	Inclining Block	100	✓	Nil	up 238kL	22
							>238kL	64
138	Gwydir	Bingara	320 kL Allowance	391	✓	320	>320kL	175
		Warialda, Gravesend & North Star	450 kL Allowance	574	✓	450	>450kL	73
139	Liverpool Plains	Quirindi	300 kL Allowance	174	✓	300	>300kL	60
		Werris Creek	300 kL Allowance	470	✓	300	>300kL	83
		Coeypolly pipeline users	300 kL Allowance	406	✓	300	>300kL	83
		Blackville,Premer, Spring Ridge & Wallabadah	300 kL Allowance	174	✓	300	>300kL	60
		Willow Tree	300 kL Allowance	435	✓	300	>300kL	145
		Caroona	200 kL Allowance	116	✓	200	>200kL	60
140	Mid Western Regional	Mudgee	Two Part	265	✓	Nil	All	96
		Gulgong	Two Part	265	✓	Nil	All	96
		Rylstone	Two Part	421	✓	Nil	All	110
141	Palerang	Bugendore	Inclining Block	130	✓	Nil	Up to 200kL	85
							> 200kL	90
		Captains Flat	Inclining Block	166	✓	Nil	Up to 200kL	180
							> 200kL	210
		Braidwood	Inclining Block	212	✓	Nil	Up to 200kL	95
							> 200kL	120
142	Tamworth Regional	Tamworth	Inclining Block	138	✓	Nil	Up to 450 kL	70
							451 to 900 kL	75
							> 900kL	80
		Calala Backwash Water					All	17
		Raw Water					Up to 450 kL	50
							451 to 900 kL	55
							> 900 kL	60
		Dungowan Dam (if main crosses property)	Inclining Block	69	✓	Nil	Up to 450 kL	25
		Raw Water					451 to 900 kL	55
							> 900 kL	60
		Dungowan Dam (if main does not cross property) & Conners Creek Dam (Raw Water)	Inclining Block	138	✓	Nil	Up to 450 kL	50
							451 to 900 kL	55
							> 900 kL	60
143	Upper Hunter	Murrurundi	Two Part	260	✓	Nil	All	119
		Merriwa/Cassilis	Two Part	200	✓	Nil	All	72
		Aberdeen/Scone	Two Part	200	✓	Nil	All	97
144	Upper Lachlan	Crookwell	Inclining Block	375	✓	Nil	Up to 300kL	90
							> 300kL	100
		Taralga	Inclining Block	205	✓	Nil	Up to 400kL	72
							> 400kL	159
		Dalton	Two Part	371	✓	Nil	All	106
		Gunning	Two Part	163	✓	Nil	All	48
145	Warrumbungle	Coonabarabran	535 kL Allowance	419	✗	535	> 535	78
		Baradine	644 kL Allowance	465	✗	644	> 644	72
		Binnaway	507 kL Allowance	464	✗	507	> 507	72
		Coolah	Inclining Block	202	✓	Nil	Up to 300kL	64
							301 to 500kL	80
							501 to 800kL	92
							> 800kL	105

Table 6B - Water Supply - 2004/05 Non-Residential Tariffs

	WATER UTILITY	Town	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum) ($)	Basis for Access Charge *Proportional to square of size of service connection or water meter	Access Charge Independent of Land Value ?	Allowance (kL)	Usage Range (kL)	Usage Charge (c/kL)
		(1)		(2)	(3)	(4)	(5)	(6)	(7)
1	Albury	Albury	Inclining Block	76	Meter Size(eg 25mm:$118, 40mm:$302, 50mm:$473)	✓	Nil	Up to 275 kL	44
								276 kL to 19999kL	88
								>19999	51
2	Armidale Dumaresq	Armidale	Inclining Block	180	Uniform Access Charge	✓	Nil	Up to 200 kL	75
								201 kL to500 kL	100
								>500 kL	115
		Armidale, Untreated Water	Inclining Block	180	Uniform Access Charge	✓	Nil	Up to 200 kL	37
								201 kL to500 kL	65
								>500 kL	80
3	Ballina (Reticulator)	Ballina	Inclining Block	90	Uniform Access Charge	✓	Nil	0 kL to 350 kL	77
								>350 kL	100
4	Balranald (Dual Supply)	Balranald & Euston, Raw	200 kL Allowance	175	Service Connection Size* (eg. 40mm $700)	✓	200	>200 kL	20
		Balranald	Two Part	165	Service Connection Size* (eg. 40mm $660)	✓	Nil	All	55
6	Bathurst Regional	Bathurst (Filtered)	45 kL Allowance	250	Service Connection Size* (eg. 25mm $390; 40mm $1000)	✓	45	46 to 300 kL	50
								>300 kL	80
		Bathurst (Raw)	45 kL Allowance	250	Service Connection Size* (eg. 25mm $390; 40mm $1000)	✓	45	46 to 300 kL	35
								>300 kL	65
7	Bega Valley (Unfiltered)	Bega Valley	Two Part	146	Service Connection Size* (eg. 20mm $146; 40mm $584)	✓	Nil	All	88
8	Bellingen (Unfiltered)		Two Part	207	Service Connection Size*: 25mm $323.44, 40mm $828, 80mm $3312, etc	✓	Nil	All	62
9	Berrigan (Dual Supply)	Berrigan,Barooga,Finley(Potable)	250 kL Allowance	489	Uniform Access Charge	✓	250	>250 kL	55
		Berrigan,Barooga,Finley(Non-Potable)	500 kL Allowance	489	Uniform Access Charge	✓	500	>500 kL	27
		Tocumwal (Filtered)	750kL Allowance	489	Uniform Access Charge	✓	750	>750 kL	43
13	Bogan	Nyngan	Inclining Block	195	Service Connection Size* (eg. 25mm $305; 40mm $780)	✓	Nil	<450 kL	60
								>450 kL	92
14	Bombala	Bombala	Inclining Block	373	Uniform Access Charge	✓	Nil	Up to 350 kL	43
								>350 kL	93
		Delegate	Unmetered	182	Uniform Access Charge	✓			
15	Boorowa	Boorowa	Two Part	300	Uniform Access Charge	✓	Nil	All	100
16	Bourke (Dual Supply)	Bourke	Filtered: Two Part, Raw: Unmetered	450	Uniform Access Charge	✓	Nil	All	37
17	Brewarrina	Brewarrina	Unmetered	648	Land Value	✕			
		Goodooga	Unmetered	532	Land Value	✕			
18	Australian Inland	Broken Hill, Sunset Strp, Menindi	Inclining Block	185	Service Connection* (eg. 25mm $289; 40mm $740)	✓	Nil	0 kL to 200 kL	48
		Filtered water						201 kL to 400 kL	75
								> 400 kL	205
		Silverton	Inclining Block	185	Service Connection* (eg. 25mm $289; 40mm $740)	✓	Nil	0 kL to 200 kL	36
		Chlorinated Water						201 kL to 400 kL	63
								> 400 kL	193
		Pipeline Customers or Unfiltered Water	Inclining Block	185.0	Service Connection* (eg. 25mm $289; 40mm $740)	✓	Nil	0 kL to 200 kL	25
								201 kL to 400 kL	52
								> 400 kL	182
19	Byron (Reticulator)	Byron	Two Part	99	Meter Size (25mm: $174, 40mm: $497)	✓	Nil	All	96
20	Cabonne	Molong	Inclining Block	470	Uniform Access Charge	✓	Nil	<300 kL	71
								301 kL to 500 kL	115
								>500 kL	165
		Cumnock	Inclining Block	420	Uniform Access Charge	✓	Nil	<300 kL	123
								301 kL to 500 kL	155
								>500 kL	165
		Yeoval	Inclining Block	310	Uniform Access Charge	✓	Nil	<300 kL	36
								301 kL to 500 kL	60
								>500 kL	145
		Delgany	Inclining Block	480	Uniform Access Charge	✓	Nil	<300 kL	103
								301 kL to 500 kL	160
								>500 kL	210
21	Carrathool	Hillston	500 kL Allowance	315	Uniform Access Charge	✓	500	500 kL to 1,000 kL	33
								>1,000 kL	47
		Carrathool	500 kL Allowance	584	Uniform Access Charge	✓	500	500 kL to 1,000 kL	29
								>1,000 kL	45
		Goolgowi/Merriwagga	500 kL Allowance	625	Uniform Access Charge	✓	500	500 kL to 1,000 kL	29
								>1,000 kL	45
		Rankins Springs	500 kL Allowance	525	Uniform Access Charge	✓	500	500 kL to 1,000 kL	42
22	Central Darling	Wilcannia (Filtered)	100 kL Allowance	500	Uniform Access Charge	✓	100	All	290
		Wilcannia (Raw)	Unmetered	400	Uniform Access Charge	✓	unlimited		
		White Cliffs, Raw	140 kL Allowance	400	Uniform Access Charge	✓	140	All	330
		Ivanhoe (Filtered)	100 kL Allowance	100	Uniform Access Charge	✓	100	All	290
		Ivanhoe (Raw)	200 kL Allowance	160	Uniform Access Charge	✓	200	All	125
23	Central Tablelands	Central Tablelands	Two Part	124	Meter Size*(40mm:$496)	✓	Nil	All	112
		Quandialla	Inclining Block	464		✓	Nil	Up to 200 kL/quarter	120
								>200 kL/quarter	200

Table 6B - Water Supply - 2004/05 Non-Residential Tariffs

	WATER UTILITY	Town	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum)	Basis for Access Charge	Access Charge Independent of Land Value ?	Allowance	Usage Range	Usage Charge
				($)	*Proportional to square of size of service connection or water meter		(kL)	(kL)	(c/kL)
		(1)		(2)	(3)	(4)	(5)	(6)	(7)
24	Cobar	Cobar	Inclining Block	300	Uniform Access Charge	✓	Nil	Up to 500kL	65
								>500kL	130
		Nymagee Village	Unmetered	500	Uniform Access Charge	✓			
		Mt Hope	Unmetered	600	Uniform Access Charge	✓			
		Euabalong Village	Unmetered	500	Uniform Access Charge	✓			
28	Cooma-Monaro	Cooma, Bredbo, Nimmitabel	Two Part	342	Uniform Access Charge	✓	Nil	All	52
30	Coonamble Shire	Coonamble	809 kL Allowance	194	Land value	✗	809	>808 kL	24
		Gulargambone	879 kL Allowance	380	Land value	✗	879	>864 kL	44
		Quambone	591 kL Allowance	290	Uniform Access Charge	✓	591	>591 kL	49
31	Cootamundra (Reticulator)	Cootamundra	219 kL Allowance	298	Land Value	✗	219	>219 kL	113
33	Corowa	Corowa	Inclining Block	140	Uniform Access Charge	✓	Nil	Up to 300 kL	10
					Uniform Access Charge			> 300 kL	50
		Mulwala	Inclining Block	120		✓	Nil	Up to 300 kL	10
								300 kL to 80,000 kL	40
								>80,000 kL	31
		Howlong	400 kL Allowance	200		✓	400	400 to 1000 kL	90
								>1000kL	110
		Balldale, Non Potable	Two Part	120		✓	Nil	All	50
34	Cowra	Cowra	Inclining Block	330	Uniform Access Charge	✓	Nil	Up to 5000 kL	46
								5,001 to 10,000 kL	82
								> 10000 kL	134
37	Deniliquin	Deniliquin, Filtered	Inclining Block	460	Meter Size*(40mm:660)	✓	Nil	Up to 800 kL	15
								800 to 1000kL	31
								>1000 kL	59
		Deniliquin,Raw	Unlimited	200	Meter Size	✓	Nil	Unlimited	
38	Dubbo	Dubbo	Two Part	210	Land Value	✗	Nil	All	52
39	Dungog (Unfiltered)	Dungog	Inclining Block	189	Uniform Access Charge	✓	Nil	Up to 220 kL	65
								> 220 kL	129
		Clarence Town	Inclining Block	189	Uniform Access Charge	✓	Nil	Up to 220 kL	66
								> 220 kL	129
		Patterson District	Inclining Block	258	Uniform Access Charge	✓	Nil	Up to 220 kL	80
								> 220 kL	172
		Gresford	Inclining Block	326	Uniform Access Charge	✓	Nil	Up to 220 kL	72
								> 220 kL	176
40	Eurobodalla (Unfiltered)	Eurobodalla	Two Part	269	Meter Size*: 25mm:$430, 40mm:$1076, etc	✓	Nil	All	100
42	Forbes	Forbes	Two Part	298	Service Connection Size* (40mm:$327)	✓	Nil	All	44
43	Gilgandra (Groundwater)	Gilgandra	Two Part	235	Service Connection Size* (50mm:$590)	✓	Nil	All	45
		Tooraweenah	Two Part	65	Uniform Access Charge	✓	Nil	All	100
44	Glen Innes Severn	Glen Innes	Inclining Block	88	Uniform Access Charge	✓	Nil	Up to 450 kL	130
								>450 kL	195
		Severn	Two part	258	Uniform Access Charge	✓	Nil	All	60
45	Gloucester	Gloucester	Two Part	230	Uniform Access Charge	✓	Nil	All	110
		Barrington	Two Part	200	Uniform Access Charge	✓	Nil	All	100
47	Goldenfields (Reticulator)	Retail	Two Part	204	Uniform Access Charge	✓	Nil	All	104
49	Gosford	Gosford	Two Part	72	Service Connection Size* (40mm:$289.90)	✓	Nil	All	76
50	Goulburn	Goulburn	Inclining Block	242	Meter Size*(40mm:$967)	✓	Nil	Up to 400 kL (for 20mm meter)	66
								>400 kL (for 20mm meter)	148
		Marilan	Inclining Block	309	Meter Size*(50mm:$308.50)	✓	Nil	Up to 400 kL (for 20mm meter)	94
								>400 kL (for 20mm meter)	192
52	Griffith	Griffith (Filtered)	Inclining Block	168	Meter Size*(40mm:$672)	✓	Nil	Up to 200 kL	25
								>200 kL	47
53	Gundagai	Gundagai	Inclining Block	70	Service Connection Size*: 25mm:$110, 40mm:$280, etc	✓	Nil	All	83
54	Gunnedah (Groundwater)	Gunnedah	440 kL Allowance	278	Land Value	✗	440	>440 kL	63
		Curlewis	440 kL Allowance	314	Uniform Access Charge	✗	440	>440 kL	63
		Mullaley	440 kL Allowance	572	Uniform Access Charge	✗	440	>440 kL	63
		Tambar Springs	440 kL Allowance	652	Uniform Access Charge	✗	440	>440 kL	63
56	Guyra	Guyra	Inclining Block	232	Uniform Access Charge	✓	Nil	Up to 750 kL	88
								>750 kL	160
		Tingha	Two Part	205	Uniform Access Charge	✓	Nil	All	140
57	Harden (Reticulator)	Harden	300 kL Allowance	454	Uniform Access Charge	✓	300	>300 kL	100
58	Hastings (Unfiltered)	Hastings	Two Part	185	Service Connection Size (eg. 40mm $740)	✓	Nil	All	93
59	Hay (Dual Supply)	Hay (Filtered)	Inclining Block	60	Service Connection Size (eg. 40mm $240)	✓	Nil	Up to 300 kL	50
								>300 kL	80
		Hay (Unfiltered) - commercial users	1000 kL Allowance	200	Uniform Access Charge	✓	1000	>1,000 kL	36
62	Hunter Water		Declining Block	25	Meter Size* (eg. 50mm: $162, 100mm: $645, 300mm: $5,805, 500mm: $16,125)	✓	Nil	Up to 1,000 kL	101
								>1000 kL	93
63	Inverell	Inverell/Ashford/Yetman, Filtered	Two Part	230	Uniform Access Charge	✓	Nil	All	100

Table 6B - Water Supply - 2004/05 Non-Residential Tariffs

	WATER UTILITY	Town	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum) ($)	Basis for Access Charge *Proportional to square of size of service connection or water meter	Access Charge Independent of Land Value ?	Allowance (kL)	Usage Range (kL)	Usage Charge (c/kL)
		(1)		(2)	(3)	(4)	(5)	(6)	(7)
64	Jerilderie (Dual Supply)	Jerilderie, Filtered	300 kL Allowance	406	Land Value	✗	300	300 to 600 kL	100
								600 to 1200 kL	90
								>1200 kL	80
		Jerilderie, Filtered	300 kL Allowance	403	Land Value	✗	300	>300kL	37
66	Kempsey (Groundwater)	Kempsey	Two Part	265	Uniform Access Charge	✓	Nil	All	83
67	Kyogle	Kyogle, Bonalbo, Muli-Muli, Woodenbong	Two Part	75	Uniform Access Charge	✓	Nil	All	100
68	Lachlan	Condoblin	Inclining Block	230	Uniform Access Charge	✓	Nil	Up to 300 kL	60
								>300 kL	100
69	Leeton	Leeton, Whitton, Murrami	Inclining Block	175	Meter Size*(40mm:$700)	✓	Nil	Up to 350 kL	46
								>350 kL	55
70	Lismore (Reticulator)	Lismore, Nimbin	Two Part	92	Service Connection Size*(40mm:$369.68)	✓	Nil	All	93
71	Lithgow	Lithgow	Inclining Block	410	Uniform Access Charge	✓	Nil	Up to 500 kL	51
								501 kL to2,000 kL	132
								2001 kL to 5000 kL	150
								>5,000 kL	202
79	MidCoast County Council		Two Part	168	Meter Size* (eg. 40mm $672)	✓	Nil	All	81
80	Moree Plains Shire	Moree, Mungindi, Boggabilla, Pallamallawa	Two Part	265	Service Connection Size* (eg. 40mm $850)	✓	Nil	All	56
83	Murray	Murray, Filt	Two Part	177	Uniform Access Charge	✓	Nil	All	56
		Murray, Raw	Two Part	63	Uniform Access Charge	✓	Nil	All	38
84	Murrumbidgee	Darlington Point	Two Part	180	Uniform Access Charge	✓	Nil	All	20
		Coleambally	Two Part	200	Uniform Access Charge	✓	Nil	All	20
86	Muswellbrook	Muswellbrook,Denman, Sandy Hollow	Two Part	127	Service Connection Size* (eg. 40mm $508)	✓	Nil	All	123
87	Nambucca	Nambucca	Two Part	86	Uniform Access Charge	✓	Nil	All	90
88	Narrabri (Groundwater)	Narrabri	Two Part	153	Service Connection Size* (eg. 40mm $392)	✓	Nil	All	33
		Gwabegar	Two Part	175	Service Connection Size* (eg. 40mm $338)	✓	Nil	All	50
		Wee Wa	Two Part	132	Service Connection Size* (eg. 40mm $809)	✓	Nil	All	51
		Boggabri	Two Part	316	Service Connection Size* (eg. 40mm $809)	✓	Nil	All	60
		Bellata	Two Part	316	Service Connection Size* (eg. 40mm $802)	✓	Nil	All	60
		Pilliga	Two Part	200	Service Connection Size* (eg. 40mm $809)	✓	Nil	All	50
89	Narrandera (Groundwater)	Narrandera	Two Part	236	Uniform Access Charge	✓	Nil	All	51
90	Narromine (Groundwater)	Narromine/Trangie	Two Part	200	Uniform Access Charge	✓	Nil	All	50
		Tomingley	Two Part	320	Uniform Access Charge	✓	Nil	All	50
92	Oberon (Reticulator)	Oberon	Two Part	91	Uniform Access Charge	✓	Nil	All	97
93	Orange	Orange	Two Part	280	Service Connection Size* (eg. 40mm $1,120)	✓	Nil	All	55
94	Parkes	Parkes	Inclining Block	350	Meter Size*, eg : 40mm $425	✓	Nil	Up to 365kL	30
								>365 kL	114
97	Queanbeyan (Reticulator)	Queanbeyan	Inclining Block	230	Uniform Access Charge	✓	Nil	Up to 176 kL	95
								>176kL	135
99	Richmond Valley	all	Inclining Block	215	Service Connection Size* (eg. 40mm $300)	✓	Nil	Up to 200 kL	55
								>200 kL	80
100	Riverina	Wagga Wagga	Declining Block	120	Uniform Access Charge	✓	Nil	Up to 36,000 kL	65
								>36,000 kL	56
		Shires	Declining Block	125	Uniform Access Charge	✓	Nil	Up to 36,000 kL	77
								>36,000 kL	67
101A	Rous County Council	Rous Retail	Two Part	94	Uniform Access Charge	✓	Nil	All	87
105	Shoalhaven	Shoalhaven, treated	TwoPart	130	Service Connection Size*(40mm:$282)	✓	Nil	All	30
		Shoalhaven, untreated	TwoPart	65	Service Connection Size*(80mm:$618)	✓	Nil	All	30
106	Singleton	Singleton	Two Part	194	Meter Size* (eg. 40mm $775)	✓	Nil	All	77
		Mt Thorley	Two Part	510	Meter Size* (eg. 40mm $1,091, 100mm $5,160)	✓	Nil	All	150
		Jerry's/Broke Plains	Two Part	194	Uniform Access Charge	✓	Nil	All	120
107	Snowy River (Unfiltered)	Snowy River	Two Part	262	Uniform Access Charge	✓	Nil	All	42
108	Sydney Water		Two Part	75	Meter Size* (eg. 40mm $300, 100mm $1,875, 300mm $16,875)	✓	Nil	All	94
110	Tamworth	Tamworth	Inclining Block	138	Service Connection Size* (eg. 40mm $553.20)	✓	Nil	up to 450 kL	70
								451 to 900 kL	75
								> 900kL	80
		Calala Backwash Water						All	17
		Raw Water						Up to 450 kL	50
								451 to 900 kL	55
								> 900 kL	60
		Dungowan Dam (if main crosses property)	Inclining Block	69	Uniform Access Charge	✓	Nil	Up to 450 kL	25
		Raw Water						451 to 900 kL	55
								> 900 kL	60
		Dungowan Dam (if main does not cross property)	Inclining Block	138	Uniform Access Charge	✓	Nil	Up to 450 kL	50
		& Conners Creek Dam (Raw Water)						451 to 900 kL	55
								> 900 kL	60
112	Tenterfield	Tenterfield	Two Part	278	Uniform Access Charge	✓	Nil	All	71
		Jennings	Two Part	275	Uniform Access Charge	✓	Nil	All	74
		Urbenville	Two Part	310	Uniform Access Charge	✓	Nil	All	58
113	Tumbarumba (Unfiltered)	Tumbarumba	Inclining Block	310	Uniform Access Charge	✓	Nil	Up to500 kL	55
								>500kL	87
		Khancoban	Inclining Block	350	Uniform Access Charge	✓	Nil	Up to500 kL	60
								>500kL	90
114	Tumut	Tumut	Inclining Block	296	Service Connection* (eg. 40mm $563)	✓	Nil	Up to 400 kL	59
								> 400 kL	83

Table 6B - Water Supply - 2004/05 Non-Residential Tariffs

	WATER UTILITY	Town	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum) ($)	Basis for Access Charge *Proportional to square of size of service connection or water meter	Access Charge Independent of Land Value ?	Allowance (kL)	Usage Range (kL)	Usage Charge (c/kL)
		(1)		(2)	(3)	(4)	(5)	(6)	(7)
115	Tweed	Tweed	Two Part	106	Meter Size*(40mm:$424)	✓	Nil	All	68
116	Uralla	Uralla	Two Part	186	Uniform Access Charge	✓	Nil	All	70
		Bundarra	Two Part	470	Uniform Access Charge	✓	Nil	All	80
118	Wakool	Barham, Murray Downs, Tooleybuc, Moulamein(Filtered + Raw Water)	300 kL Allowance	685	Raw Water Service Connection size (eg. 25mm $1,035, 40mm $1,735)	✓	300	>300 kL	65
		Wakool , Murray Downs, Koraleigh (Raw)	600 kL Allowance	685		✓	600	> 600kL	45
119	Walcha	Walcha, Untreated	Two Part	321	Uniform Access Charge	✓	Nil	All	91
		Walcha, Treated	Two Part	41	Uniform Access Charge	✓	Nil	All	38
120	Walgett (Dual Supply)	Walgett	Unmetered	565	Uniform Access Charge	✓	Unmetered		
121	Warren (Dual Supply)	Warren	650 kL Allowance	365	Uniform Access Charge	✓	650	>650kL	60
		Nevertire	650 kL Allowance	414	Uniform Access Charge	✓	650	>650kL	70
		Collie	400 kL Allowance	336	Uniform Access Charge	✓	400	>400kL	126
123	Wellington	Wellington, Geurie	Inclining Block	380	Uniform Access Charge	✓	Nil	Up to 500 kL	65
								501 kL to 3000kL	85
								>3000kL	95
124	Wentworth (Dual Supply)	Filtered	Inclining Block	200	Service Connection Size*(40mm:$800)	✓	Nil	Up to 250 kL	100
								>250kL	250
		Raw	Inclining Block	100	Service Connection Size*(40mm:$400)	✓	Nil	Up to 250 kL	30
								>250kL	50
125	Wingecarribee	Wingecarribee	Inclining Block	197	Meter Size*(40mm:$799.35)		Nil	Up to 150 kL	53
								151 kL to 5,000 kL	143
						✓		>5,000 kL	169
126	Wyong	Wyong	Two Part	83	Service Connection Size* (eg. 40mm $331.29)	✓	Nil	All	76
129	Yass Valley	Yass, Bowning, Binalong & Rural Areas	Two Part	171	Uniform Access Charge	✓	Nil	All	110
		Murrumbateman	Two Part	150	Uniform Access Charge	✓	Nil	All	111
130	Young (Reticulator)	Young	Declining Block	420	Uniform Access Charge		Nil	Up to 1200 kL	155
								1251 kL to 2500 kL	130
								>2500 kL	110
131	Albury City	Albury	Inclining Block	76	Meter Size(eg 25mm:$118, 50mm:$473)	✓	Nil	Up to 275 kL	44
								276 kL to 19999kL	88
								>19999	51
132	Clarence Valley	Grafton	Two Part	134	Uniform Access Charge	✓	Nil	All	54
133	Coffs Harbour (Unfiltered)	Coffs Harbour, Nana Glen, Coramba	Two Part	193	Uniform Access Charge	✓	Nil	All	131
134	Corowa	Corowa	Inclining Block	140	Uniform Access Charge	✓	Nil	Up to 300 kL	10
					Uniform Access Charge			> 300 kL	50
		Mulwala	Inclining Block	120		✓	Nil	Up to 300 kL	10
								300 kL to 80,000 kL	40
								>80,000 kL	31
		Howlong	400 kL Allowance	200		✓	400	400 to 1000 kL	90
								>1000kL	110
		Balldale, Non Potable	Two Part	120		✓	Nil	All	50
135	Glen Innes Severn	Glen Innes	Inclining Block	88	Uniform Access Charge	✓	Nil	Up to 450 kL	130
								>450 kL	195
136	Goulburn Mulwaree	Goulburn	Inclining Block	242	Meter Size*	✓	Nil	Up to 400 kL (for 20mm meter)	66
								>400 kL (for 20mm meter)	148
		Marilan	Inclining Block	309	Meter Size*	✓	Nil	Up to 400 kL (for 20mm meter)	94
								>400 kL (for 20mm meter)	192
137	Greater Hume	Culcairn	Inclining Block	100	Uniform Access Charge	✓	Nil	up 238kL	22
								>238 kL	64
		Hume	400 kL Allowance	425	Uniform Access Charge	✓	400	400 to 1000 kL	90
								>1000 kL	110
138	Gwydir	Bingara	320 kL Allowance	391	Uniform Access Charge	✓	320	>320kL	175
		Warialda, Gravesend & North Star	450 kL Allowance	574	Uniform Access Charge	✓	450	>450kL	73.45
		Marilan	Inclining Block	309	Meter Size*	✓	Nil	Up to 400 kL (for 20mm meter)	94
								>400 kL (for 20mm meter)	192

Table 6B - Water Supply - 2004/05 Non-Residential Tariffs

	WATER UTILITY	Town	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum)	Basis for Access Charge	Access Charge Independent of Land Value ?	Allowance	Usage Range	Usage Charge
				($)	*Proportional to square of size of service connection or water meter		(kL)	(kL)	(c/kL)
			(1)	(2)	(3)	(4)	(5)	(6)	(7)
139	Liverpool Plains	Quirindi	300 kL Allowance	174	Uniform Access Charge	✓	300	>300kL	60
		Werris Creek	300 kL Allowance	470	Uniform Access Charge	✓	300	>300kL	83
		Coeypolly pipeline users	300 kL Allowance	406	Uniform Access Charge	✓	300	>300kL	83
		Blackville,Premer, Spring Ridge & Wallabadah	300 kL Allowance	174	Uniform Access Charge	✓	300	>300kL	60
		Willow Tree	300 kL Allowance	435	Uniform Access Charge	✓	300	>300kL	145
		Caroona	200 kL Allowance	116	Uniform Access Charge	✓	200	>200kL	60
140	Mid Western Regional	Mudgee	Two Part	265	Uniform Access Charge	✓	Nil	All	96
		Gulgong	Two Part	265	Uniform Access Charge	✓	Nil	All	96
		Rylstone	Two Part	421	Uniform Access Charge	✓	Nil	All	110
141	Palerang	Bugendore	Incilning Block	130	Uniform Access Charge	✓	Nil	up to 200kL	85
								> 200kL	90
		Captains Flat	Incilning Block	166	Uniform Access Charge	✓	Nil	Up to 200kL	180
								> 200kL	210
		Braidwood	Incilning Block	212	Uniform Access Charge	✓	Nil	Up to 200kL	95
								> 200kL	120
142	Tamworth Regional	Tamworth	Inclining Block	138	Service Connection Size* (eg. 40mm $553.20)	✓	Nil	up to 450 kL	70
								451 to 900 kL	75
								> 900kL	80
		Calala Backwash Water						All	17
		Raw Water						Up to 450 kL	50
								451 to 900 kL	55
								> 900 kL	60
		Dungowan Dam (if main crosses property)	Inclining Block	69	Uniform Access Charge	✓	Nil	Up to 450 kL	25
		Raw Water						451 to 900 kL	55
								> 900 kL	60
		Dungowan Dam (if main does not cross property)	Inclining Block	138	Uniform Access Charge	✓	Nil	Up to 450 kL	50
		& Conners Creek Dam (Raw Water)						451 to 900 kL	55
								> 900 kL	60
143	Upper Hunter	Aberdeen/Scone	Two Part	200	Uniform Access Charge	✓	Nil	All	97
		Merriwa/Cassilis	Two Part	200	Uniform Access Charge	✓	Nil	All	72
		Murrurundi	Two Part	260	Uniform Access Charge	✓	Nil	All	119
144	Upper Lachlan	Crookwell	Inclining Block	375	Uniform Access Charge	✓	Nil	Up to 300kL	90
								> 300kL	100
		Taralga	Inclining Block	205	Uniform Access Charge	✓	Nil	Up to 400kL	72
								> 400kL	159
		Dalton	Two Part	371	Uniform Access Charge	✓	Nil	All	106
		Gunning	Two Part	163	Uniform Access Charge	✓	Nil	All	48
145	Warrumbungle		535 kL Allowance	419	Uniform Access Charge	P	535	> 535 kL	78

Table 6C - Water Supply - 2004/05 Non-Rateable Tariffs

	WATER UTILITY	Town	Property	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum) ($)	Basis for Access Charge *Proportional to square of size of service connection or water meter	Allowance (kL)	Usage Range (kL)	Usage Charge (c/kL)	Reduction + for Non-rateable properties
				(1)	(2)	(3)	(5)	(6)	(7)	
1	Albury	Albury		Inclining Block	76	Uniform Access Charge	Nil	Up to 275 kL	44	N
								276 kL to 19999kL	88	
								>19999	51	
2	Armidale Dumaresq	Armidale	Non Rateable	Two Part	180	Uniform Access Charge	Nil	All	104	N
			Non-Profit Sporting	Two Part	180	Uniform Access Charge	Nil	All	79	
			Dialysis Users	Allowance, Inclining Block	180	Uniform Access Charge	100	Up to 50kL	0	
								51 to 200 kL	70	
								201 kL to500 kL	93	
								>500 kL	115	
3	Ballina (Reticulator)	Ballina		Inclining Block	90	Uniform Access Charge	Nil	0 kL to 350 kL	77	N
								>350 kL	100	
4	Balranald (Dual Supply)	Balranald & Euston, Raw								L
		Balranald								
6	Bathurst Regional	Bathurst (Filtered)		45 kL Allowance	250	Service Connection Size* (eg. 25mm $390; 40mm $1000)	45 kL	46 to 300 kL	50	N
								>300 kL	80	
		Bathurst (Raw)		45 kL Allowance	250	Service Connection Size* (eg. 25mm $390; 40mm $1000)	45 kL	46 to 300 kL	35	N
								>300 kL	65	
7	Bega Valley (Unfiltered)	Bega Valley	Public Hospitals and Nursing Homes		No Access		300kL	>300kL	88	L
			Home Dialysis, Home Care Patients		No Access		> 4 monthly of 70 kL	>Allowance	88	
			Non-Profit Community Org.		No Access		Nil	All	88	
			Churches		No Access		Nil	All	88	
			Church Halls, Residences, Church Schools		Full Access ($146)		Nil	All	88	
8	Bellingen (Unfiltered)				207	Meter Size 25mm $323.44, 40mm $828, 80mm $3312, etc	Nil	All	62	N
9	Berrigan (Dual Supply)	Berrigan,Barooga,Finley(Potable)		250 kL Allowance	489	Uniform Access Charge	250	>250kL	55	N
		Berrigan,Barooga,Finley(Non-Potable)		500 kL Allowance	489	Uniform Access Charge	500	>500kL	27	
		Tocumwal (Filtered)		750kL Allowance	489	Uniform Access Charge	750	>750kL	43	
13	Bogan	Nyngan	all	Inclining Block	195	Service Connection Size* (eg. 25mm $305; 40mm $780)	Nil	<450 kL	60	N
								>450 kL	92	
14	Bombala	Bombala		Incining Block	373	Uniform Access Charge	Nil	Up to 350 kL	43	N
								>350 kL	93	
		Delegate		Unmetered	182	Uniform Access Charge				
15	Boorowa	Boorowa		Usage Charge only			Nil	All	125	N
16	Bourke (Dual Supply)	Bourke		Filtered: Two Part, Raw: Unmetered	Filtered Water: $171.55, Raw Water: $278	Uniform Access Charge	Nil	All filtered water	37	N
17	Brewarrina	Brewarrina		Unmetered	648	Uniform Access Charge	Nil	Unmetered		N
		Goodooga		Unmetered	532	Uniform Access Charge	Nil	Unmetered		
18	Australian Inland	Broken Hill & other towns	Exempt Properties	Usage Charge only	Nil	No Access Charge	Nil	All Filtered	205	S
19	Byron (Reticulator)	Byron		Two Part	99	Meter Size (25mm: $174, 50mm: $796)	Nil	All	96	N
20	Cabonne	Molong		Inclining Block	470.0	Uniform Access Charge	Nil	<300 kL	71	N
								301 kL to 500 kL	115	
								>500 kL	165	
		Cumnock		Inclining Block	420.0	Uniform Access Charge	Nil	<300 kL	123	
								301 kL to 500 kL	155	
								>500 kL	165	
		Yeoval		Inclining Block	310	Uniform Access Charge	Nil	<300 kL	36	
								301 kL to 500 kL	60	
								>500 kL	145	
		Delgany		Inclining Block	480	Uniform Access Charge	Nil	<300 kL	103	
								301 kL to 500 kL	160	
								>500 kL	210	
21	Carrathool	Hillston	Churches, 1/2 charge	500 kL Allowance	158	Uniform Access Charge	500	500 kL to 1,000 kL	33	L
								>1,000 kL	47	
		Carrathool	Churches, 1/2 charge	500 kL Allowance	291	Uniform Access Charge	500	500 kL to 1,000 kL	29	
								>1,000 kL	45	
		Goolgowi/Merriwagga	Churches, 1/2 charge	500 kL Allowance	314	Uniform Access Charge	500	500 kL to 1,000 kL	29	
								>1,000 kL	45	
		Rankins Springs, Stage 1, 2, 3	Non-Rateable	500 kL Allowance	525	Uniform Access Charge	500	500 kL to 1,000 kL	42	
		Rankins Springs, town and farmlets	Non-Rateable		746					
		Rankins Springs, town and farmlets	Churches, 1/2 charge		373					
22	Central Darling	Wilcannia (Filtered)							290	N
		Wilcannia (Raw)								
		White Cliffs							330	
		Ivanhoe (Filtered)							290	
		Ivanhoe (Raw)							125	
23	Central Tablelands	Central Tablelands		Two Part	124	Meter Size* (eg. 20mm $124; 40mm $496)	Nil	All	112	N
		Quandialla		Inclining Block	464		Nil	Up to 200 kL/quarter	120	
								after 200 kL/quarter	200	

+ L: Large reduction in comparison with non-residential tariff
S: Significant reduction
N: No reduction

Table 6C - Water Supply - 2004/05 Non-Rateable Tariffs

	WATER UTILITY	Town	Property	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum) ($)	Basis for Access Charge *Proportional to square of size of service connection or water meter	Allowance (kL)	Usage Range (kL)	Usage Charge (c/kL)	Reduction + for Non-rateable properties
				(1)	(2)	(3)	(5)	(6)	(7)	
24	Cobar	Cobar		Inclining Block	300	Uniform Access Charge	Nil	Up to 500kL	65	N
								>500kL	130	
		Nymagee Village		Unmetered	500	Uniform Access Charge				
		Mt Hope		Unmetered	600	Uniform Access Charge				
		Euabalong Village		Unmetered	500	Uniform Access Charge				
28	Cooma-Monaro	Cooma, Bredbo, Nimmitabel		Two Part	342	Uniform Access Charge	Nil	All	52	N
30	Coonamble (Groundwater)	Coonamble		Usage only	Nil		Nil	All	24	S
		Gulargambone		Usage only	Nil		Nil	All	44	
		Quambone		Usage only	Nil	Uniform Access Charge	Nil	All	49	
31	Cootamundra (Reticulator)	Cootamundra		Flat Charge	331		219	>219 kL	113	N
33	Corowa	Corowa		Inclining Block	140	Uniform Access Charge	Nil	Up to 300 kL	10	N
						Uniform Access Charge		> 300 kL	50	
		Mulwala		Inclining Block	120		Nil	Up to 300 kL	10	
								300 kL to 80,000 kL	40	
								>80,000 kL	31	
		Howlong		400 kL Allowance	200		400 kL	400 to 1000 kL	90	
								>1000kL	110	
		Balldale, Non Potable		Two Part	120		Nil	All	50	
34	Cowra	Cowra	Schools and Churches	Inclining Block	nil	Uniform Access Charge	Nil	All	62	S
37	Deniliquin	Deniliquin, Filtered		Inclining Block	460	Meter Size	Nil	Up to 800 kL	15	N
								800 to 1000kL	31	
								>1000 kL	59	
		Deniliquin, Raw		Unlimited	200	Meter Size	Nil	Unlimited		
38	Dubbo	Dubbo		Two Part	210	Meter Size	Nil	All	52	N
39	Dungog (Unfiltered)	Dungog		Inclining Block			Nil	All	129	S
		Clarence Town		Inclining Block			Nil	All	129	
		Patterson District		Inclining Block			Nil	All	172	
		Gresford		Inclining Block			Nil	All	176	
40	Eurobodalla (Unfiltered)	Eurobodalla		Two Part	269	Meter Size*: 25mm:$430, 32mm:$699, etc	Nil	All	100	N
42	Forbes	Forbes		Two Part	298	Service Connection Size*	Nil	All	44	N
43	Gilgandra (Groundwater)	Gilgandra		Two Part	235	Service Connection Size*	Nil	All	45	N
		Tooraweenah		Two Part	65	Uniform Access Charge	Nil	All	100	N
44	Glen Innes Severn	Glen Innes		Inclining Block	88	Uniform Access Charge	Nil	upto 450 kL	130	N
								>450 kL	195	
		Severn		Two Part	258	Uniform Access Charge	Nil	All	60	N
45	Gloucester	Gloucester		Two Part	230	Uniform Access Charge	Nil	All	110	N
		Barrington		Two Part	200	Uniform Access Charge	Nil	All	100	
47	Goldenfields (Reticulator)	Retail		Two Part	204	Uniform Access Charge	Nil	All	104	N
49	Gosford	Gosford					Nil	All	76	L
50	Goulburn	Goulburn		Inclining Block	242	*Meter Size	Nil	Up to 400 kL (for 20mm	66	N
								>400 kL (for 20mm meter)	148	
		Marulan		Inclining Block	309	Meter Size*	Nil	Up to 400 kL (for 20mm	94	
								>400 kL (for 20mm meter)	192	
52	Griffith	Griffith			Nil	consumption	Nil	All	47	L
53	Gundagai	Gundagai			70	Service Connection Size*: 25mm:$110, 50mm:$435, etc	Nil	All	83	N
54	Gunnedah (Groundwater)	Gunnedah, Curlewis, Mullaley, Tambar Springs			Nil		Nil	All	63	L
56	Guyra	Guyra		Inclining Block	232	Uniform Access Charge	Nil	Up to 750 kL	88	N
								>750 kL	160	
		Tingha			205	Uniform Access Charge	Nil	All	140	
57	Harden (Reticulator)	Harden						All	177	S
58	Hastings (Unfiltered)	Hastings		Two Part	113	Uniform Access Charge	Nil	All	60	L
59	Hay (Dual Supply)	Hay (Filtered)		Inclining Block	60	Uniform Access Charge	Nil	Up to 300 kL	50	N
								>300 kL	80	
		Hay (Unfiltered)		1000 kL Allowance	200	Uniform Access Charge	1000	>1,000 kL	36	
62	Hunter Water			Declining Block	26	Meter Size* (eg. 50mm: $162, 100mm: $645, 300mm: $5,805, 500mm: $16,125	Nil	Up to 1,000 kL	93	
								>1000 kL	86	
63	Inverell	Inverell, Filtered		Two Part	230	Uniform Access Charge	Nil	All	100	N
64	Jerilderie (Dual Supply)	Jerilderie, Filtered			Nil		Nil	0 to 600 kL	100	L
								600 to 1200 kL	90	
								>1200 kL	80	
		Jerilderie, Raw			Nil		Nil	>300kL	37	
66	Kempsey (Groundwater)	Kempsey	All	Two Part	265	Uniform Access Charge	Nil	All	83	L
67	Kyogle	Kyogle		Two Part	75	Uniform Access Charge	Nil	All	100	N
68	Lachlan	Condoblin		Inclining Block	230	Uniform Access Charge	Nil	Up to 300 kL	60	N
								>300 kL	100	
69	Leeton	Leeton, Whitton, Murrami		Two Part	175	Meter Size*	Nil	All	56	N
70	Lismore (Reticulator)	Lismore		Two Part	92	Service Connection Size*	Nil	All	93	N

+ L: Large reduction in comparison with non-residential tariff
S: Significant reduction
N: No reduction

Table 6C - Water Supply - 2004/05 Non-Rateable Tariffs

	WATER UTILITY	Town	Property	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum) ($)	Basis for Access Charge *Proportional to square of size of service connection or water meter	Allowance (kL)	Usage Range (kL)	Usage Charge (c/kL)	Reduction + for Non-rateable properties
				(1)	(2)	(3)	(5)	(6)	(7)	
71	Lithgow	Lithgow		Inclining Block	410	Uniform Access Charge	Nil	Up to 500 kL	51	N
								501 kL to2,000 kL	132	
								2001 kL to 5000 kL	150	
								>5,000 kL	202	
78	MidCoast County			Two part	168	Meter Size (eg. 40mm $672)	Nil	All	81	N
80	Moree Plains Shire	Moree, Mungindi, Boggabilla, Pallamallawa		Two Part	265	Service Connection Size	Nil	All	56	N
83	Murray	Murray, Filt		Two Part	177	Uniform Access Charge	Nil	All	56	N
		Murray, Raw		Two Part	63	Uniform Access Charge	Nil	All	38	
84	Murrumbidgee	Darlington Point	Churches	Two Part	Nil		Nil	All	20	N
		Coleambally	Churches	Two Part	Nil		Nil	All	20	
86	Muswellbrook	Muswellbrook,Denman, Sandy Hollow		Two Part	127	Service Connection Size	Nil	All	123	N
87	Nambucca	Nambucca		Two Part	86	Uniform Access Charge	Nil	All	90	N
88	Narrabri (Groundwater)	Narrabri		Two Part	153	Service Connection Size	Nil	All	33	N
		Gwabegar		Two Part	175	Service Connection Size	Nil	All	50	
		Wee Wa		Two Part	132	Service Connection Size	Nil	All	51	
		Boggabri		Two Part	316	Service Connection Size	Nil	All	60	
		Bellata		Two Part	316	Service Connection Size	Nil	All	60	
		Pilliga		Two Part	200	Service Connection Size	Nil	All	50	
89	Narrandera (Groundwater)	Narrandera		Two Part	236	Uniform Access Charge	Nil	All	51	N
90	Narromine (Groundwater)	Narromine/Trangie		Two Part	200	Uniform Access Charge	Nil	All	50	N
		Tomingley		Two Part	320	Uniform Access Charge	Nil	All	50	
92	Oberon (Reticulator)	Oberon		Two Part	91	Uniform Access Charge	Nil	All	97	N
93	Orange	Orange		Two Part	280	Service Connection Size* (eg. 40mm $1,120)	Nil	All	55	N
94	Parkes	Parkes		Inclining Block	350	Meter Size, eg : 25mm $360.50	Nil	Up to 365kL	30	N
								>365 kL	114	
97	Queanbeyan	Queanbeyan		Inclining Block	230	Uniform Access Charge	Nil	All	95	S
99	Richmond Valley	Casino		Inclining Block	215	Service Connection Size	Nil	Up to200 kL	55	N
								>200 kL	80	
100	Riverina (Groundwater)	Wagga Wagga	Govt Depts, Police Stations, Courts, Schools, Staff Housing, Public Offices		Wagga: $80, Rural, Town & Village: $100	Uniform Access Charge	Nil	Up to 36,000 kL	65	S
			Churches or similar	Usage charge only	Nil	Nil		>36,000 kL	56	
101A	Rous County Council	Rous Retail	Community org	Two Part	47	50% of Normal	Nil	All	87	S
105	Shoalhaven	Shoalhaven, treated	All	Two Part	130	Service Connection Size	Nil	All	60	N
		Shoalhaven, untreated	All	Two Part	65	Service Connection Size	Nil	All	30	N
106	Singleton	Singleton		Two Part	194	Meter Size* (eg. 40mm $775)	Nil	All	77	N
		Mt Thorley		Two Part	510	Meter Size (eg. 40mm $1,091, 100mm $5,160)	Nil	All	150	
		Jerry's/Broke Plains		Two Part	194	Uniform Access Charge	Nil	All	120	
107	Snowy River (Unfiltered)	Snowy River		118kL Allowance/4 months	262	Uniform Access Charge	Nil	All	42	S
108	Sydney Water			Two Part	75	Meter Size* (eg. 40mm $300, 100mm $1,875, 300mm $16,875)	Nil	All	94	S
110	Tamworth	Tamworth		Inclining Block	138	Service Connection Size* (eg. 40mm $553.20)	Nil	upto 450 kL	70	N
								451 to 900 kL	75	
								> 900kL	80	
		Calala Backwash Water						All	17	
		Raw Water						Up to 450 kL	50	
								451 to 900 kL	55	
								> 900 kL	60	
		Dungowan Dam (if main crosses property)		Inclining Block	69	Uniform Access Charge	Nil	Up to 450 kL	25	
		Raw Water						451 to 900 kL	55	
								> 900 kL	60	
		Dungowan Dam (if main does not cross property)		Inclining Block	138	Uniform Access Charge	Nil	Up to 450 kL	50	
		& Conners Creek Dam (Raw Water)						451 to 900 kL	55	
								> 900 kL	60	
112	Tenterfield	Tenterfield				Council will consider on application, the making of a contribution equivalent to that of the water availability charge				S
		Jennings								
		Urbenville								
113	Tumbarumba (Unfiltered)	Tumbarumba		Inclining Block	310	Uniform Access Charge	500kL	Up to500 kL	55	N
								>500kL	87	
		Khancoban		Inclining Block	350	Uniform Access Charge		Up to500 kL	60	
								>500kL	90	
114	Tumut	Tumut		Inclining Block	296	Service Connection (eg. 38mm $563.57)	Nil	Up to 400 kL	59	N
								> 400 kL	9	
115	Tweed	Tweed		Two Part	106	Meter Size*	Nil	All	68	N
116	Uralla	Uralla		275 kL Allowance	186	Uniform Access Charge	Nil	All	70	N
		Bundarra		275 kL Allowance	470	Uniform Access Charge	Nil	All	80	
118	Wakool	Barham, Murray Downs, Tooleybuc, Moulamein(Filtered + Raw Water)		300 kL Allowance	685	Uniform Access Charge	300	>300 kL	65	N
		Wakool , Murray Downs, Koraleigh (Raw)		600 kL Allowance	685	Uniform Access Charge	600	> 600kL	45	
119	Walcha	Walcha, Untreated		Two Part	321	Uniform Access Charge	Nil	All	91	N
		Walcha, Treated		Two Part	41	Uniform Access Charge	Nil	All	38	
120	Walgett (Dual Supply)	Walgett			565	Uniform Access Charge				N

+ L: Large reduction in comparison with non-residential tariff
S: Significant reduction
N: No reduction

Table 6C - Water Supply - 2004/05 Non-Rateable Tariffs

	WATER UTILITY	Town	Property	Tariff Type	Access Charge for 20 mm Service Connection (or Minimum) ($)	Basis for Access Charge *Proportional to square of size of service connection or water meter	Allowance (kL)	Usage Range (kL)	Usage Charge (c/kL)	Reduction + for Non-rateable properties
				(1)	(2)	(3)	(5)	(6)	(7)	
121	Warren (Dual Supply)	Warren		650 kL Allowance	365	Uniform Access Charge	650	>650kL	60	N
		Nevertire		650 kL Allowance	414	Uniform Access Charge	650	>650kL	70	
		Collie		400 kL Allowance	336	Uniform Access Charge	400	>400kL	126	
123	Wellington	Wellington, Geurie		Inclining Block	Nil	Uniform Access Charge	Nil	Up to 500 kL	65	L
								501 kL to 3000kL	85	
								>3000kL	95	
124	Wentworth (Dual Supply)	Filtered		Inclining Block	200	Service Connection Size	Nil	Up to 250 kL	100	N
								>250kL	250	
		Raw		Inclining Block	100	Service Connection Size	Nil	Up to 250 kL	30	
								>250kL	50	
125	Wingecarribee	Wingecarribee		Inclining Block	197	Meter Size*	Nil	Up to 150 kL	53	N
								151 kL to 5,000 kL	143	
								>5,000 kL	169	
126	Wyong	Wyong		Two Part	83	Service Connection Size* (eg. 50mm $517.65)		All	76	N
129	Yass Valley		Churches,etc	Two Part	171	Uniform Access Charge	Nil	All	28	S
			Playgrounds & Yass Pool	Two Part	171	Uniform Access Charge	Nil	All	50	
			Binalong Pool	Two Part	171	Uniform Access Charge	Nil	All	99	
130	Young (Reticulator)	Young		Usage Charge Only	Nil			All	135	S
131	Albury City	Albury		Inclining Block	76	Uniform Access Charge	Nil	Up to 275 kL	44	N
								276 kL to 19999kL	88	
								>19999	51	
132	Clarence Valley	Coutts Crossing		Two Part	175	Uniform Access Charge	Nil	All	60	N
		Waterview-Sealands-Eatonsville		Two Part	175	Uniform Access Charge	Nil	All	68	
		Wooli		Two Part	350	Uniform Access Charge	Nil	All	74	
		Minnie Water		Two Part	310	Uniform Access Charge	Nil	All	74	
		Glenreagh		Two Part	175	Uniform Access Charge	Nil	All	74	
		Grafton City		Two Part	134	Uniform Access Charge	Nil	All	54	
		Outside Grafton City		Two Part	200	Uniform Access Charge	Nil	All	54	
		North Coast Water		Two Part	160	Service Connection Size	Nil	All	65	
133	Coffs Harbour (Unfiltered)	Coffs Harbour, Nana Glen, Coramba		Two Part	Nil	Uniform Access Charge	Nil	All	156	S
134	Corowa	Corowa		Inclining Block	140	Uniform Access Charge	Nil	Up to 300 kL	10	N
						Uniform Access Charge		> 300 kL	50	
		Mulwala		Inclining Block	120		Nil	Up to 300 kL	10	
								300 kL to 80,000 kL	40	
								>80,000 kL	31	
		Howlong		400 kL Allowance	200		400 kL	400 to 1000 kL	90	
								>1000kL	110	
		Balldale, Non Potable		Two Part	120		Nil	All	50	
135	Goulburn Mulwaree	Goulburn		Inclining Block	242	*Meter Size	Nil	Up to 400 kL (for 20mm met	66	N
								>400 kL (for 20mm meter)	148	
		Marulan		Inclining Block	308.5	Meter Size*	Nil	Up to 400 kL (for 20mm met	94	
								>400 kL (for 20mm meter)	192	
136	Greater Hume	Culcairn		Inclining Block	100	Uniform Access Charge		up 238kL	22	N
								>238kL	64	
137	Gwydir	Bingara	320 kL Allowance		Nil	Uniform Access Charge	Nil	All	175	S
		Warialda, Gravesend & North Star	450 kL Allowance		Nil	Uniform Access Charge	Nil	All	73.45	S
138	Liverpool Plains	Quirindi		300 kL Allowance	174	Uniform Access Charge	300kL	>300kL	60	N
		Werris Creek		300 kL Allowance	470	Uniform Access Charge	300kL	>300kL	83	N
		Coeypolly pipeline users		300 kL Allowance	406	Uniform Access Charge	300kL	>300kL	83	N
		Blackville,Premer, Spring Ridge & Wallabadah		300 kL Allowance	174	Uniform Access Charge	300kL	>300kL	60	N
		Willow Tree		300 kL Allowance	435	Uniform Access Charge	300kL	>300kL	145	N
		Caroona		200 kL Allowance	116	Uniform Access Charge	200kL	>200kL	60	N
139	Mid Western Regional	Mudgee		Two Part	265	Uniform Access Charge	Nil	All	96	N
		Gulgong		Two Part	265	Uniform Access Charge	Nil	All	96	
		Rylstone		Two Part	421.25	Uniform Access Charge	Nil	All	110	
140	PALERANG Council	Bugendore			130	Uniform Access Charge	Nil	Nil	up to 200kL	N
									> 200kL	
		Captains Flat			166	Uniform Access Charge	Nil	Nil	up to 200kL	
									> 200kL	
		Braidwood			245	Uniform Access Charge for metered and unmetered	Nil			
141	Tamworth Regional	Tamworth		Inclining Block	138.3	Service Connection Size* (eg. 40mm $553.20)	Nil	upto 450 kL	70	N
								451 to 900 kL	75	
								> 900kL	80	
		Calala Backwash Water						All	17	
		Raw Water						Up to 450 kL	50	
								451 to 900 kL	55	
								> 900 kL	60	
		Dungowan Dam (if main crosses property)		Inclining Block	69.2	Uniform Access Charge	Nil	Up to 450 kL	25	
		Raw Water						451 to 900 kL	55	
								> 900 kL	60	
		Dungowan Dam (if main does not cross property)		Inclining Block	138.3	Uniform Access Charge	Nil	Up to 450 kL	50	
		& Conners Creek Dam (Raw Water)						451 to 900 kL	55	
								> 900 kL	60	
142	Upper Humter	Murrurundi		Two Part	260	Water Meter Size	Nil	All	119	N
		Merriwa/Cassilis		Two Part	200		Nil	All	72	
		Aberdeen/Scone		Two Part	200		Nil	All	115	
143	Upper Lachlan	Crookwell		Inclining Block	375	Uniform Access Charge	Nil	Up to 300kL	90	N
								> 300kL	100	
		Taralga		Inclining Block	205	Uniform Access Charge	Nil	Up to 400kL	72	
								> 400kL	159	
		Dalton		Two Part	371	Uniform Access Charge	Nil	All	106	
		Gunning		Two Part	163	Uniform Access Charge	Nil	All	48	

+ L: Large reduction in comparison with non-residential tariff
S: Significant reduction
N: No reduction

Table 7 - Sewerage - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																	RESIDENTIAL BILLS						COST RECOVERY								
		Access Charge (or Minimum) ($) (1)			Operating Cost (OMA) (c/kL) (2)				Charge Independent of Land Value ? Yes/No (3)		Non-residential Sewer Usage Charge (Not incl SDF) c/kL (3a)		Does Council Have Liquid Trade Waste Fees and Charges* ? (4)	Non-Res & Trade Waste Charges (% of Annual rates and charges) (5)	Non-Res & Trade Waste Volume (% of Sewage Collected) (6)	Typical Developer Charge ($/Equivalent Tenement (ET)) (7)			Typical Residential Bill ($/assessment) (8)			Average Residential Bill ($/property) (9)			OMA + Depreciation ($/property) (10)			Economic Real Rate of Return (%) (11)			Connected Properties (No.) (12)	
		2002/03	*2003/04*	*2004/05*	*00/01*	*01/02*	*02/03*	*03/04*	*03/04*	*04/05*	*03/04*	*04/05*	*2004/05*	*2003/04*	*2003/04*	*02/03*	*03/04*	*04/05*	*02/03*	*03/04*	*04/05*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*02/03*	*03/04*
1	Albury AMALGAMATED	255+usage	275+usage	345	86	97	107	108	✓	✓		182	✓	13	30	1,500	1,500	5,420	325	353	345	277	317	307	361	399	412	0.9	0.3	0.2	18,540	20,800
2	Armidale Dumaresq	255	255	264	97	100	119	133	✓	✓			×	15		1,240	1,240	1,240	255	255	264	223	242	239	359	432	441	-1.1	-1.0	-1.1	7,200	7,400
3	Ballina	330	330	330	91	108	95	109	✓	✓			✓	18		4,320	4,450	5,930	330	330	330	357	355	355	455	436	446	1.5	0.4	6.0	11,900	12,300
4	Balranald	153	325	325	38	45	32	49	✓	✓			×			680	680	680	153	325	325	371	404	409	332	307	364	0.6	1.0	0.5	730	760
5	Barraba AMALGAMATED	250	275		99	124	164	168	✓				×	9					250	275		247	263	309	289	350	406	-2.7	-7.4	-7.4	660	610
6	Bathurst Regional	339	351	351	76	82	91	88	×	✓		78		17		1,750	1,750	1,750	339	351	351	306	315	334	366	377	369	2.5	3.1	5.2	12,400	12,400
7	Bega Valley	400	400	490	143	151	156	221	✓	✓		138	×	9		2,440	2,580	5,200	400	400	490	350	356	356	504	507	617	-0.6	-2.6	-2.4	9,900	10,000
8	Bellingen	423	438	438	107	106	137	133	✓	✓		102		5		3,710	3,810	3,700	423	438	438	390	409	422	459	514	545	0.9	0.1	-0.3	2,700	2,780
9	Berrigan	284	290	310	176	191	110	132	✓	✓			✓	15				1,700	284	290	310	300	311	313	343	338	359	-1.1	-0.4	-0.8	2,900	2,950
10	Bingara AMALGAMATED	315	344		40	53			✓										315	344		260	267	***267***	536	564	***564***	-5.4	-6.2	***-6.2***	590	610
11	Bland	348	361	373	100	130	107	148	×	×			×			1,000	1,000	1,000	348	361	373	365	382	414	364	356	372	-0.3	0.3	0.7	1,700	1,730
12	Blayney	382	396	410	102	111	123	169	×	✓			✓	12	14	1,120	1,150	1,930	382	396	410	411	456	467	301	305	406	4.0	4.4	3.6	1,300	1,400
13	Bogan	346	358	370	54	83	40	66	×	×			×						346	358	370	403	417	432	344	294	297	2.0	4.3	4.9	970	970
14	Bombala	323	345	357	85	82	84	74	×	×			×	20	16	1,530	1,530	1,640	323	345	357	400	410	424	263	278	243	3.8	3.0	4.9	750	750
15	Boorowa	162	187	212	74	79	78	104	×	✓			×			500	500	***500***	162	187	212	142	154	178	559	328	287	-2.8	-2.4	-1.4	530	530
16	Bourke	434	449	459	84	63	77	203	✓	✓			×	7		460	460	460	434	449	459	524	517	501	391	441	551	1.5	-1.5	-10.4	1,300	1,280
17	Brewarrina	355	383	414	51	77	85	104	×	×			×	28					355	383	414	256	333	361	393	446	477	-0.2	-0.5	-3.7	480	470
18	Australian Inland	224	231	250	108	107	127	140	×	✓	80		✓	23					224	231	250		234	211	250	249	283	0.1	0.6	-0.3	9,600	9,500
19	Byron	429+usage	446+usage	464+usage	132	165	187	161	✓	✓	72		✓	18		5,810	5,980	6,170	560	592	572	516	558	670	551	614	676	4.2	2.1	2.6	9,600	9,600
20	Cabonne	520	539	577	110	121	153	121	×	×			×	10					520	539	577	431	441	455	301	337	301	3.0	2.4	3.8	2,200	2,240
21	Carrathool	146	151	200	160	149	130	163	✓	✓						520	536	550	146	151	200	114	129	143	203	186	280	-5.4	12.5	-5.0	840	840
22	Central Darling	385	390	350	36	167	75	44	✓	✓			×			400	400	400	385	390	350	289	292	289	573	304	216	-0.6	-0.4	-0.2	340	340
23	Central Tablelands	**No SGE**																														
24	Cobar	192	192	225	33	109	36	77	✓	✓			×	19		770	770	770	192	192	225	193	187	184	351	270	215	-5.3	-2.4	-0.2	1,700	1,660
24-A	Cobar WB	**No SGE**																														
25	Coffs Harbour AMALGAMATED	521	537	553	85	100	103	113	✓	✓			✓	7	24	3,780	4,730	4,910	521	537	553	584	575	587	446	460	480	5.0	6.5	4.7	19,400	20,000
26	Coolah AMALGAMATED	257	266		50	67	74	68	✓				×	6				400	257	266		249	257	269	223	210	249	2.2	6.2	0.6	780	780
27	Coolamon	235	240	240	251	145	61	190	✓	✓			×	17					235	240	240	285	284	300	262	282	312	3.2	0.8	2.3	810	810
28	Cooma-Monaro	431	453	485	115	126	178	233	✓	✓			✓	19		1,750	1,870	1,910	431	453	485	403	424	445	457	504	545	0.3	0.5	0.2	3,100	3,050
29	Coonabarabran AMALGAMATED	117	330	345	84	106	131	152	✓	✓			×			829	830	830	431	330	345	397	379	382	522	554	604	-1.0	-1.8	***-1.8***	1,500	1,540
30	Coonamble	240	244	244	42	76	84	81	×	×			×	9					240	244	244	258	282	292	391	396	400	-2.7	-3.4	-3.5	1,400	1,330
31	Cootamundra	165	173	208	37	38	42	68	×	×			×	8		700	700	700	165	173	208	178	195	206	323	347	360	-2.2	-5.3	-8.8	2,500	2,620
32	Copmanhurst AMALGAMATED	600	600	600	226	176	186	180	✓				×			3,850	3,850	3,850	600	600	600	613	588	619	470	480	506	5.7	20.0	6.9	450	460
33	Corowa AMALGAMATED	270	270	290	82	86	101	111	✓	✓			×	16		560	560	530	270	270	290	269	308	312	315	310	348	0.0	0.5	-0.4	3,300	3,270
34	Cowra	255	265	290	58	68	72	81	✓	✓			✓	28		2,500	2,500	2,650	255	265	290	264	273	279	256	249	268	3.2	4.2	5.9	3,300	3,390
35	Crookwell AMALGAMATED	428	441		42	69	122	107	×				×		17	490	510	530	428	441		382	395	413	305	444	439	1.1	-0.5	-0.1	1,000	1,040
36	Culcairn AMALGAMATED	226	236		66	66	82	85	✓				×	17		2,130	2,130	2,130	226	236		182	182	186	254	255	260	-1.3	-1.2	-1.2	1,300	1,310
37	Deniliquin	398	418	439	61	71	82	105	✓	✓			×		25	600	600	600	398	418	439	363	383	404	393	424	409	0.0	0.0	0.8	2,900	2,930
38	Dubbo	403	403	403	106	106	85	179	×	×			✓		16	2,500	2,430	3,470	403	403	403	400	388	394	399	402	529	1.6	2.1	2.4	13,600	13,800
39	Dungog	326	342	360	21	83	92	121	✓	✓			×	15		2,870	2,870	2,870	326	342	360	378	400	421	319	351	361	5.6	5.7	12.8	1,000	1,050
40	Eurobodalla	450	450	470	148	131	164	203	✓	✓			✓	8		1,980	6,000	6,000	450	450	470	436	431	421	409	461	490	2.2	3.4	4.3	15,800	16,500
41	Fish River WS	**No SGE**																														
42	Forbes	440	456	472	53	57	81	110	×	×			✓		12	650	650	650	440	456	472	383	384	378	242	285	310	9.2	7.7	5.4	3,100	3,200
43	Gilgandra	205	256	295	37	21	69	61	✓	✓	30		✓	13	12				205	256	295	172	180	230	260	276	267	-3.1	-4.0	-0.9	1,300	1,330

NOTE: Bills and Charges are in Dollars of the Year

* For liquid trade waste discharged to the sewerage system

Table 7 - Sewerage - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																		RESIDENTIAL BILLS						COST RECOVERY								
		Access Charge (or Minimum) ($) (1)			Operating Cost (OMA) (c/kL) (2)				Charge Independent of Land Value ? Yes/No (3)		Non-residential Sewer Usage Charge (Not incl SDF) c/kL (3a)		Does Council Have Liquid Trade Waste Fees and Charges* ? (4)	Non-Res & Trade Waste Charges (% of Annual rates and charges) (5)	Non-Res & Trade Waste Volume (% of Sewage Collected) (6)	Typical Developer Charge ($/Equivalent Tenement (ET)) (7)			Typical Residential Bill ($/assessment) (8)			Average Residential Bill ($/property) (9)			OMA + Depreciation ($/property) (10)			Economic Real Rate of Return (%) (11)			Connected Properties (No.) (12)		
		2002/03	*2003/04*	*2004/05*	*00/01*	*01/02*	*02/03*	*03/04*	*03/04*	*04/05*	*03/04*	*04/05*	*2004/05*	*2003/04*	*2003/04*	*02/03*	*03/04*	*04/05*	*02/03*	*03/04*	*04/05*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*02/03*	*03/04*
44	Glen Innes AMALGAMATED	265	275	260	37	59	99	63	✓	✓			×						265	275	260	270	284	297	173	189	193	1.2	4.2	4.9	2,600	2,640
45	Gloucester	357	370	325	81	126	139	176	✓	✓			✓			1,705	1,770	5,550	357	370	325	319	352	371	314	373	434	1.6	5.1	0.9	1,300	1,300
46	Goldenfields (Bulk Supplier)		**No SGE**																													
47	Goldenfields (Reticulator)		**No SGE**																													
48	Goldenfields (Combined)		**No SGE**																													
49	Gosford	340	347	352	81	86	99	103	✓	✓	76		✓	14	16	3,320		1,800	340	347	352	316	315	324	312	336	354	2.6	2.1	1.5	60,300	64,000
50	Goulburn AMALGAMATED	307	325	444	95	104	136	138	×	✓			✓	21	30	950	4,090	4,600	307	325	444	428	358	380	349	369	337	3.4	3.2	4.5	8,700	9,420
51	Grafton AMALGAMATED	380	380	393	68	82	105		✓				✓						380	380	393	354	326	***326***	356	354	***354***	0.7	0.6	***0.6***	7,900	7,900
52	Griffith	261	270	284	77	111	120	100	×				✓	29	39	1,820	2,100	2,110	261	270	284	489	422	421	513	568	509	1.0	0.5	0.7	7,200	7,230
53	Gundagai	216	227	195	169	194	197	194	×				✓						216	227	195	190	210	270	237	244	267	-1.6	-0.3	0.5	960	870
54	Gunnedah	223	230	237	43	45	58	71		✓	✓		×	5		1,950	1,950	1,950	223	230	237	218	225	217	184	186	191	2.0	2.0	1.7	3,700	3,970
55	Gunning AMALGAMATED	210	230		237	275	315	449	×									2,550	210	230		480	511	525	394	406	361	2.0	2.3	3.5	220	220
56	Guyra	500	500	500	45	80	75	140		✓	✓		×	18					500	500	500	452	519	517	418	414	463	1.3	1.8	1.2	720	730
57	Harden	273	301	331	106	112	110	110		✓	✓		×	8					273	301	331	194	260	287	345	341	340	-10.3	-7.0	-1.8	940	940
58	Hastings	478	495	395	70	86	62	112		✓	✓	60		✓	6		2,800	2,800	478	495	395	453	463	450	366	390	411	5.8	6.0	5.3	23,200	24,000
58-A	Hawkesbury	346	359	371		98	96	106		✓	✓	155		✓	23	10		5,590	5,590	346	359	371	318	347	363	417	463	522	0.7	0.0	-0.2	6,700	7,270
59	Hay	345	354	363	79	90	82	85		✓	✓				13				345	354	363	354	355	366	460	441	423	-2.8	-2.1	-1.2	1,200	1,230
60	Holbrook AMALGAMATED	181	188		228	225	241	110	×										181	188		379	414	429	372	374	364	2.5	1.9	2.7	650	650
61	Hume AMALGAMATED	200	200		142	129	148	157	×				×			2,930	2,930	2,930	200	200		279	260	243	328	350	360	-0.5	-0.9	-0.7	1,200	1,290
62	Hunter Water	265+usage	279+usage	288+usage	46	55	51	55		✓	✓	42		✓			3,500	3,500	3,500	309	323	332				255	251		3.1	3.7	***3.7***	190,100	196,000
63	Inverell	275	285	298	114	104	105	115		✓	✓			✓	7	7				275	285	298	249	263	259	324	314	314	-4.3	-3.1	-3.8	4,400	4,600
64	Jerilderie	460	475	478	50	84	125	118	×		×						600	650	900	460	475	478	572	257	269	258	334	322	27.3	5.6	7.1	410	410
65	Junee	275	283	283	143	124	118	138		✓	✓			✓	14		550	550	550	275	283	283	282	272	289	276	270	325	0.6	2.2	0.2	1,500	1,490
66	Kempsey	470	482	499	88	124	155	153		✓	✓				26		2,770	4,320	4,530	470	482	499	411	437	459	473	484	486	2.3	2.1	9.6	8,300	8,430
67	Kyogle	266+usage	412	474	148	183	235	253		✓	✓	82		✓	15		1,000	1,000	1,000	399	412	474	301	342	368	426	451	474	-3.1	-1.6	-1.3	1,500	1,490
68	Lachlan	300	300	300	45	64	53	65		✓	✓		×		18					300	300	300	245	270	270	317	287	307	-0.4	1.0	0.3	2,100	2,100
69	Leeton	83	84	125	48	55	76	75	×		×			✓		43	3,000	3,100	3,150	83	84	125	570	407	492	396	374	371	2.5	9.7	4.7	2,900	2,940
70	Lismore	334	367	412	85	86	87	93		✓	✓			✓	26		4,260	4,370	4,460	334	367	412	296	306	341	383	373	411	1.0	2.3	2.7	11,700	11,700
71	Lithgow	293	303	313	103	93	98	87	×		×			✓			1,780	1,780	1,790	293	303	313	241	256	267	288	290	254	-3.0	-1.7	3.0	7,600	7,640
72	Lockhart	121	121	125	99	121	115	107	×		×			×	11					121	121	125	345	364	370	412	371	343	0.0	0.1	0.2	740	770
73	North Coast Water		**No SGE**																													
74	Maclean AMALGAMATED	426	437	437	101	108	126	139		✓				×	6	13	3,180	3,330	8,000	426	437	437	420	403	444	337	336	390	4.4	5.0	12.8	4,800	4,610
75	Manilla AMALGAMATED	330	330		99	129	127	221		✓				×			1,300	1,300	1,430	330	330		457	490	455	460	544	664	0.4	-0.4	-4.4	980	1,090
76	Merriwa AMALGAMATED	270	280		119	160	180	203		✓				×	16		600	600	1,000	270	280		263	260	265	463	399	341	-21.1	-15.6	-8.1	450	470
77	MidCoast (Manning)	460	480	480						✓	✓			✓			2,700	3,200	3,200	460	480	480											
78	MidCoast (Great Lakes)	460	480	520						✓	✓			✓			4,300	4,500	4,500	460	480	520											
79	MidCoast (Combined)									✓		135		✓	14	18				460	480	500	464	443	479	536	510	546	3.2	3.8	-0.2	29,400	29,400
80	Moree Plains	480	530	580	110	130	137	104		✓	✓	100		✓		40	700	700	3,000	480	530	580	449	488	501	491	492	511	0.2	-0.6	1.6	4,200	4,150
81	Mudgee AMALGAMATED	369	380		72	68	105	121		✓			×			10	1,800	1,850	1,850	369	380		330	340	367	340	354	389	1.7	2.3	1.5	4,700	4,790
82	Mulwaree AMALGAMATED	395	409		101	113	104	416	×				×				2,500	2,500	2,500	395	409		386	384	438	308	288	330	3.9	5.4	6.1	310	310
83	Murray	308	318	318	61	75	83	75		✓	✓			✓	11		700	700	700	308	318	318	365	365	399	362	346	364	1.3	1.9	2.9	2,100	2,080
84	Murrumbidgee	346	346	346	70	64	123	58	×		×			×	6		1,000	1,000	1,000	346	346	346	262	265	260	149	199	183	6.1	2.7	3.2	690	710
85	Murrurundi AMALGAMATED	322	334		27	36	44	42		✓				×			900	930	930	322	334		276	275	288	295	250	245	0.3	0.2	1.1	570	570
86	Muswellbrook	364	382	395	99	97	102	99		✓	✓			✓		43	4,290	4,290	4,290	364	382	395	381	411	422	400	425	403	-0.4	0.8	2.9	4,500	4,590

Table 7 - Sewerage - Residential Charges, Bills, Cost Recovery

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

Table 7 - Sewerage - Residential Charges, Bills, Cost Recovery

	WATER UTILITY	RESIDENTIAL CHARGES/OMA																RESIDENTIAL BILLS						COST RECOVERY							
		Access Charge (or Minimum) ($) (1)			Operating Cost (OMA) (c/kL) (2)				Charge Independent of Land Value ? Yes/No (3)		Non-residential Sewer Usage Charge (Not incl SDF) c/kL (3a)		Does Council Have Liquid Trade Waste Fees and Charges* ? (4)	Non-Res & Trade Waste Charges (% of Annual rates and charges) (5)	Non-Res & Trade Waste Volume (% of Sewage Collected) (6)	Typical Developer Charge ($/Equivalent Tenement (ET)) (7)			Typical Residential Bill ($/assessment) (8)			Average Residential Bill ($/property) (9)			OMA + Depreciation ($/property) (10)			Economic Real Rate of Return (%) (11)			Connected Properties (No.) (12)	
		2002/03	*2003/04*	*2004/05*	*00/01*	*01/02*	*02/03*	*03/04*	*03/04*	*04/05*	*03/04*	*04/05*	*2004/05*	*2003/04*	*2003/04*	*02/03*	*03/04*	*04/05*	*02/03*	*03/04*	*04/05*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*02/03*	*03/04*
131	Albury City	255+usage	275+usage	345	86	97	107	108		✓		182	✓	13	30	1,500	1,500	5,420	325	353	345	277	317	307	361	399	412	0.9	0.3	0.2		20,800
132	Clarence Valley	380	380	393	88	103	123	***123***		✓			✓			3,180	3,330	8,000	380	380	393	392	368	382	355	361	377	2.1	2.6	4.8		13,200
133	Coffs Harbour	521	537	553	87	105	108	115		✓			✓			3,750	4,750	4,930	521	537	553	586	578	589	446	463	483	5.0	6.5	4.8		20,300
134	Corowa	270	270	290	94	95	111	121		✓			✓	16		1,290	1,290	1,270	270	270	290	271	298	298	318	319	351	-0.1	0.2	-0.5		4,200
135	Glen Innes Severn	265	275	260	41	67	108	74		✓									265	275	260	281	288	302	177	195	200	1.6	4.2	5.0		2,810
136	Goulburn Mulwaree	307	325	444	95	104	136	146		✓		166	✓	21	30	1,000	4,040	4,540	307	325	444	426	359	382	348	367	336	3.4	3.3	4.6		9,710
137	Greater Hume	226	236	245	124	121	137	104	×							2,930	2,930	2,930	226	236	245	253	259	263	299	304	305	-0.1	-0.3	-0.1		2,310
138	Gwydir	315	344	393	41	52	29	44		✓									315	344	393	263	265	275	452	481	515	-4.0	-4.6	-5.3		1,210
139	Liverpool Plains	283	289	299	66	71	76	88		✓						550	600	610	283	289	299	312	321	321	325	334	313	0.6	0.4	0.8		1,970
140	Mid Western Regional	369	380	396	78	83	105	130		✓						1,800	1,850	1,850	369	380	396	345	355	372	374	385	412	0.5	1.3	0.5		5,800
141	Palerang	585	585	595	142	136	173	***173***		✓						2,090	2,200	2,320	585	585	595	454	440	450	388	425	433	2.1	2.0	2.1		1,480
142	Tamworth Regional	396	396	396	98	97	117	104		✓			✓	22	26	1,400	1,440	1,470	396	396	396	410	394	379	417	496	439	1.9	0.8	1.1		16,800
143	Upper Hunter	299	309	320	65	75	89	94		✓		60				1,800	1,850	1,900	299	309	320	287	298	310	366	356	356	-3.6	-2.2	0.5		3,630
144	Upper Lachlan	428	441	469	77	106	156	169	×							590	590	900	428	441	469	400	416	433	321	437	425	1.3	0.0	0.6		1,220
145	Warrumbungle	117	330	345	73	93	112	124		✓						550	550	685	117	330	345	346	338	344	421	437	483	0.1	0.9	-1.0		2,280

Table 7A - Sewerage - 2004/05 Residential Multiple Tariffs

WATER UTILITY		Town	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value ? (2)
9	Berrigan	Berrigan	310	✓
		Barooga	225	✓
		Finley	310	✓
		Tocumwal	310	✓
14	Bombala	Bombala	357	×
		Delegate	654	×
17	Brewarrina	Brewarrina	414	×
		Goodooga	180	×
20	Cabonne	Molong	417	×
		Canowindra	577	×
		Eugora	524	×
		Manildra	450	×
		Cudal, Cumnock, Yeoval	500	×
21	Carrathool	Hilston	200	✓
		Goolgowi	92	✓
		Rankins Springs	168	✓
27	Coolamon	Coolamon	240	✓
		Ganmain	240	✓
30	Coonamble	Coonamble	244	×
		Gulargambone	214	×
33	Corowa	Corowa	270	✓
		Mulwala	365	✓
		Howlong	200	✓
39	Dungog	Dungog	360	✓
		Clarence	260	×
44	Glen Innes Severn	Gelninnes	260	✓
		Severn	474	✓
50	Goulburn	Goulburn	246	✓
		Marulan	423	✓
54	Gunnedah	Gunnedah	237	✓
		Curlewis	444	✓
70	Lismore	Lismore /Nimbin Connected	412	✓
		Lismore/Nimbin Flats/unit	288	✓
72	Lockhart	Lockhart	125	×
		The Rock	98	×
		The Rock west	74	×
80	Moree Plains Shire	Moree Mungindi	580	✓
		Balone and Moree Plains	600	✓
		Bogabilla and Gurly	395	✓

Table 7A - Sewerage - 2004/05 Residential Multiple Tariffs

WATER UTILITY		Town	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value ? (2)
84	Murrumbidgee	Darlington Point	346	×
		Coleambally	183	×
88	Narrabri	Narrabri	316	✓
		Wee Waa	349	✓
		Boggabri	246	✓
112	Tenterfield	Tenterfield	325	✓
		Urbenville	568	✓
113	Tumbarumba	Tumbarumba	354	✓
		Khancoban	375	✓
121	Warren	Warren	465	✓
		Nevertire	490	✓
123	Wellington	Wellington	450	×
		Mumbli	430	×
		Guerie	420	×
132	Clarence Valley	Maclean & Yamba	437	✓
		Copmanhurst	600	✓
		Grafton	393	✓
		Pristine Waters, Coutts Corssing	660	✓
135	Goulburn Mulwaree	Goulburn	246	✓
		Marulan	423	✓
137	Gwydir	Bingara	393	✓
		Warialda	335	✓
138	Liverpool Plains Shire Council	Quirindi	299	✓
		Werris Creek	354	✓
139	Mid Western Regional Council	Mudgee & Gulgong	396	✓
		Rylstone	444	✓
140	Palerang	Bungendore	595	✓
		Captains Flat	525	✓
		Braidwood	139	✓
142	Upper Humter	Murrurundi	340	✓
		Merriwa	287	✓
		Aberdeen/Scone	320	✓
143	Upper Lachlan	Crookwell	469	×
		Gunning	267	×
		Taralga		

Table 7B - Sewerage - 2004/05 Non-Residential Tariffs

	WATER UTILITY	Town	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value? (2)	Basis for Access Charge *Proportional to square of size of service connection or water meter X sewer discharge factor	Sewer Usage Charge (for the estimated volume discharged to sewerage system = water usage X appropriate sewer discharge factor) (4)
1	Albury	Albury	148	✓	Meter Size (eg 25mm:$231, 40mm:$591.36)	182c/kL
2	Armidale Dumaresq	Armidale	264	✓	Multiple Units: $236/WC; Hotels, Motels: $85.40/WC	
3	Ballina	Ballina	330	✓	$140/pedestal for each additional WC	
4	Balranald	Balranald	325	✓	Service connection size*	
		Euston	325	✓	(eg. 40mm: $1300)	
5	Barraba	Barraba	275	✓	$275/2 Pedestals, Additional : $50/Pedastal,$45/Urinal, Rebate equal to access charge paid	
6	Bathurst Regional	Bathurst	307	✓	Service Connection Size*(25mm:$480, 40mm:$1229)	78c/kL
7	Bega Valley	Bega Valley	490	✓	Meter size* (eg. 40mm $1960)	138c/kL
8	Bellingen	Bellingen, Urunga, Dorrigo	438	✓	Uniform Access Charge	102c/kL, for estimated discharge over 400kL/a
9	Berrigan	Berrigan	310	✓	Uniform Access Charge, after two WCs $68/WC	
		Barooga	225	✓	Uniform Access Charge, after two WCs $92/WC	
		Finley	310	✓	Uniform Access Charge, after two WCs $68/WC	
		Tocumwal	310	✓	Uniform Access Charge, after two WCs $68/WC	
11	Bland	Bland	373	×	Land value	
12	Blayney	Blayney	410	×	Land Value	$137/WC above 3
13	Bogan	Nyngan	370	×	Land value	
14	Bombala	Bombala	357	×	Land value	
		Delegate	655	×	Land value	
15	Boorowa	Boorowa	212	✓	Uniform Access Charge	
16	Bourke	Bourke	459	✓	Uniform Access Charge	
17	Brewarrina	Brewarrina	414	×	$35/Urinals, $105/WC up to 5, 5+ $35/WC	
		Goodooga	180	×	$35/Urinals, $105/WC up to 5, 5+ $35/WC	
18	Australian Inland	Broken Hill	250	✓	Service connection size* (20mm:$500, 40mm:$2000)	80c/kL
19	Byron	Byron	464	✓	$464 for up to 1 kL/d of usage, $464 for each additional kL/d of usage	72c/kL
20	Cabonne	Molong	417	×	Land value	
		Canowindra	577	×	Land value	
		Eugora	524	×	Land value	
		Manildra	450	×	Land value	
		Cudal, Cumnock, Yeoval	500	×	Land value	
21	Carrathool	Hilston	200	✓	Uniform Access Charge	
		Goolgowi	92	✓	Uniform Access Charge	
		Rankine Springs	168	✓	Uniform Access Charge	
22	Central Darling	Wilcannia	350	✓	Uniform Access Charge, $90/additional fitting	
24	Cobar		225	✓	Uniform Access Charge for 3 WCs, additional $60/WC	
27	Coolamon	Coolamon	240	✓	Uniform Access Charge	for >2 Pedestals, $70/Pedestal
		Ganmain	240	✓	Uniform Access Charge	for >2 Pedestals, $70/Pedestal
28	Cooma-Monaro	Cooma,Nimmitabel	516	✓	$516 for consumption of under 100 kL, increasing to $12,262 for consumption over 8,000 kL	
30	Coonamble	Coonamble	244	×	Land value	
		Gulargambone	214	×	Land value	
31	Cootamundra	Cootamundra	208	×	Land value	
34	Cowra	Cowra	290	✓	Uniform Access Charge	
37	Deniliquin	Deniliquin	439	✓	Uniform Access Charge $26/WC and $25/Urinal for more than one WC or Urinal	
38	Dubbo	Dubbo	403	×	Land value	$106/WC, $212/Urinal
39	Dungog	Dungog	360	✓	Uniform Access Charge	Hotels-Licensed Area & Clubs: $162/WC, $135/Urinal, Hotels- Guest Areas & Motels: $81/WC, $68/Urinal
		Clarence	260	×	Land Value	
40	Eurobodalla	Eurobodalla	470	✓	Meter Size (Availability Factor based)* (eg. 40mm $1880)	A variable discharge factor is used (15% to 70%)
42	Forbes	Forbes	472	✓	Uniform Access Charge	for more than 7 WCs or Urinal: $66.50/WC or Urinal
43	Gilgandra	Gilgandra	145	✓	Service Connection Size	30c/kL
44	Glen Innes Severn	Glen Innes	260	✓	Uniform Access Charge +80c/kL for all water >250kL (reduced to 40c/kL if less than 50% into Sewer)	
		Severn	474	✓	$158/pedestal over 2	
45	Gloucester	Gloucester	325	✓	Uniform Access Charge+ Volumetric Charge	
49	Gosford	Gosford	263	✓	Service connection size*	76c/kL
50	Goulburn Mulwaree	Goulburn	246	✓	Meter Size (40mm: $985)	
		Marulan	423	✓	Meter Size (50mm: $4182)	
52	Griffith	Griffith	284	×	Land Value	
53	Gundagai	Gundagai	70+usage>=195	×	Service Connection (eg40mm:280)+Usage 90c/kL, minimum Charge$195	
54	Gunnedah	Gunnedah	237	✓	Uniform Access Charge	
		Curlewis	444	✓	Uniform Access Charge	

Table 7B - Sewerage - 2004/05 Non-Residential Tariffs

	WATER UTILITY	Town	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value? (2)	Basis for Access Charge *Proportional to square of size of service connection or water meter X sewer discharge factor	Sewer Usage Charge (for the estimated volume discharged to sewerage system = water usage X appropriate sewer discharge factor) (4)
56	Guyra	Guyra	500	✓	Uniform Access Charge	Ist WC/Urinal covered by rate, 2 to 6: $212/WC or Urinal, All additional: $106/WC or Urinal
57	Harden	Harden	331	✓	Uniform Access Charge	
58	Hastings	Hastings	395	✓	Uniform Access Charge	60c/kL for major regional shopping Centers, Caravan Parks, Flats, Retirement Homes, Motels, Clubs, Hotels and Hostels
58-A	Hawkesbury	Category 1, Vol < 1kL/d	430	✓	Uniform Access Charge	
		Category 2, Vol : 1kL to 5 kL/d	2154	✓	Uniform Access Charge	
		Category 3, Vol < 5kL to 10 kL/d	4308	✓	Uniform Access Charge	
		Category 4, Vol : 10kL to 20 kL/d	8610	✓	Uniform Access Charge	
		Category 5, Vol > 20 kL/d	8610	✓	Uniform Access Charge	If waste generated > 20 kL/d, 155c/kL is charged
59	Hay	Hay	363	✓	Motels: Sewerage Charge(SC)+10% of SC/Unit, Clubs, Hotels, Service Stations: 3xSC, Caravan Park: SC+ 5% SC/powered line, Dual Occupancy, Laundromat: 2xSC, Flats: SC+25%SC/ additional flat	
62	Hunter Water		528	✓	Meter Size* (Appropriate sewer discharge factor is applied to obtain the access charge. eg. 40 mm with 0.8 discharge factor results in access charge of $1,382)	42c/kL
63	Inverell	Inverell, Ashford, Delungra, Gilgai	298	✓	Uniform Access Charge(for Motels, hotels, clubs $750)	
64	Jerilderie	Jerilderie	478	✗	Land Value	
65	Junee	Junee	283	✓	$71.10/WC, $27.30/Urinal	
66	Kempsey	Kempsey	499	✓	Uniform Access Charge	
67	Kyogle	Kyogle,Wooden Bong, Bonalbo	175	✓	Service Connection(40mm: $700)+Usage, (minimum $474 including Trade waste Charges)	82c/kL
68	Lachlan	Lachlan	300	✓	Uniform Access Charge	
69	Leeton	Leeton	125	✗	Land Value	
70	Lismore	Lismore, Nimbin & Perradenya	412	✓	Uniform Access Charge	
71	Lithgow	Lithgow,Wallerawang, Portland	313	✗	Land Value	
72	Lockhart	Lockhart	125	✗	Land Value	
		The Rock	98	✗	Land Value	
		The Rock west	74	✗	Land Value	
79	MidCoast County		390	✓	Meter Size*, eg. 40mm: $1560	135c/kL, min charge $780
80	Moree Plains Shire	Moree, Mungindi	580	✓	Service Connection Size(40mm:$1200)+usage	100c/kL
		Balone and Moree Plains	600	✓	Uniform Access Charge	
		Bogabilla and Gurly	395	✓	Uniform Access Charge	
83	Murray	Moama, Mathoura	318	✓	Uniform Access Charge	
84	Murrumbidgee	Darlington Point	346	✗	Land Value	
		Coleambally	183	✗	Land Value	
86	Muswellbrook	Muswellbrook, Denman	395	✓	Uniform Access Charge	$101/WC after 3WCs, $41/Cistern
87	Nambucca	Nambucca	360	✓	Uniform Access Charge	$360/WC or occupancy
88	Narrabri	Narrabri	316	✓	Uniform Access Charge	$63/Pedestal, $47/Cistern
		Wee Waa	349	✓	Uniform Access Charge	$70/Pedestal, $52/Cistern
		Bogabri	246	✓	Uniform Access Charge	$49/Pedestal, $37/Cistern
89	Narrandera	Narrandera	350	✗	Land Value	
90	Narromine	Narromine, Trangie	440	✓	Uniform Access Charge	$110 for Motels, Carvan parks, Hotels; $220 for Flats Hostels & units
92	Oberon	Oberon	312	✗	Land Value	
93	Orange	Orange	97	✓	Service connection Size 40mm: $388 + Usage	128c/kL
94	Parkes	Parkes	191	✗	Land Value	Multiple : $95.50/WC
97	Queanbeyan	Queanbeyan	230	✓	Service Connection Size (40mm: $1000)	50c/kL
99	Richmond Valley	all	215	✓	Service Connection Size(40mm: $860)	138c/kL
105	Shoalhaven	Shoalhaven	510	✓	Meter Size (eg. 40mm $735, 80mm $1,705)	80c/kL
106	Singleton	Singleton	307	✓	Uniform Access Charge	for more than 2 WCs: $137/WC, $75/Urinal
107	Snowy River	Snowy River	316	✓	Uniform Access Charge+usage	56c/kL for estimated sewage volume, based on discharge factors of 0.88, 0.63 and 0.56 for the winter, summer/spring and autumn 4 monthly periods respectively. The winter usage charge provides an upper limit for usage charges in the summer/spring and autumn periods respectively.
108	Sydney Water		328	✓	Meter Size* (eg. 40mm: $1,280, 100mm: $7,980, 300mm: $71,800)	106c/kL for discharges over 500kL/a (1.37kL/d)
110	Tamworth	Tamworth	396	✓	Uniform Access Charge	$52.37/Additional unit (motels/hotels/Club), $152.88/Additional unit (other)
111	Temora	Temora	170	✓	Uniform Access Charge	up to 3 WCs
112	Tenterfield	Tenterfield	325	✓	Uniform Access Charge	$108/WC for Motels, $163/WC for Parks/Guest Houses/Clubs/Hotels
		Urbenville	568	✓	Uniform Access Charge	
113	Tumbarumba	Tumbarumba	354	✓	Uniform Access Charge	$59/WC, $23/Urinal
		Khancoban	375	✓	Uniform Access Charge	$45/WC, $19/Urinal
114	Tumut	Tumut	488	✓	Uniform Access Charge	

Table 7B - Sewerage - 2004/05 Non-Residential Tariffs

	WATER UTILITY	Town	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value? (2)	Basis for Access Charge *Proportional to square of size of service connection or water meter X sewer discharge factor	Sewer Usage Charge (for the estimated volume discharged to sewerage system = water usage X appropriate sewer discharge factor) (4)
115	Tweed	Tweed	435	✓	Uniform Access Charge	67c/kL for discharges over 400kL/a
116	Uralla	Uralla	275	✓	Uniform Access Charge	100c/kL
116A	Urana		189	✓	Uniform Access Charge	
117	Wagga Wagga	Wagga Wagga	559	✓	Access charge includes first 4 pan equivalent fixtures. Additional $67.50/equivalent fixture	
118	Wakool	Wakool, Barham, Moulamein, Tooleybuc, Murray Downs	420(SC)	✓	Hotels: SC+20%SC/Cistern+10%SC/Room, Clubs: SC+20%SC/Cistern,	
119	Walcha	Walcha	292	✓	Uniform Access Charge +additional $82.80/WC and $32.10/Urinal	
120	Walgett		274	×	Uniform Access Charge	
121	Warren	Warren	465	✓	Uniform Access Charge	$233/WC
		Nevertire	490	✓	Uniform Access Charge	
122	Weddin	Grenfell	157	✓	Uniform Access Charge	
123	Wellington	Wellington	450	×	Land Value	
		Mumbli	430	×	Land Value	
		Guerie	420	×	Land Value	
124	Wentworth	Wentworth, Nimatjira	370	✓	Uniform Access Charge	
125	Wingecarribee	Wingecarribee	402+Usage	✓	Meter Size* (40mm: $1606)	40c/kL for all consumption
126	Wyong	Wyong	360	✓	Meter size, 40mm: $518	64c/kL
129	Yass Valley	Yass	370	×	Land Value	
130	Young	Young	315	✓	Uniform Access Charge	after 2 WCs, $157.50/WC
131	Albury City	Albury	148	✓	Meter Size (eg 25mm:$231, 40mm:$591.36)+usage	182c/kL
132	Clarence Valley	Maclean & Yamba	437	✓	Uniform Access Charge	
		Copmanhurst	600	✓	Uniform Access Charge	
		Grafton	393	✓	Uniform Access Charge	
		Pristine Waters, Coutts Corssing	660	✓	Uniform Access Charge	
133	Coffs Harbour	Coffs Harbour	553	✓	Uniform Access Charge	
134	Corowa	Corowa	270	✓	Uniform Access Charge	3 to 8 WC: $75/WC, 9 to 20 $50/WC, >20 WCs: $37/WC
136	Goulburn Mulwaree	Mulwala	365	✓	Uniform Access Charge	
		Howlong	200	✓	Uniform Access Charge	
		Goulburn	246	✓	Meter Size (40mm: $985)	166c/kL
		Marulan	423	✓	Meter Size (50mm: $4182)	166c/kL
137	Greater Hume	Henty, Culcairn, Walla Walla	245	✓	Uniform Access Charge	
138	Gwydir	Bingara	393	✓	Uniform Access Charge	
		Warialda	335	✓	Uniform Access Charge	
139	Liverpool Plains	Quirindi	299	✓	Uniform Access Charge	
		Werris Creek	354	✓	Uniform Access Charge	
140	Mid Western Regional Council	Mudgee & Gulgong	396	✓	Uniform Access Charge	
		Rylstone	444	✓	Uniform Access Charge	
141	Palerang	Bungendore	595	✓	Uniform Access Charge, $22/WC after 3	
		Captains Flat	525	✓	Uniform Access Charge, $22/WC after 3	
		Braidwood	139	✓	Uniform Access Charge, $22/WC after 4	
142	Tamworth Regional	Tamworth	396	✓	Uniform Access Charge	$52.37/Additional unit (motels/hotels/Club), $152.88/Additional unit (other)
143	Upper Humter	Murrurundi	400	✓	Meter Size	60c/kL
		Merriwa	400	✓	Meter Size	60c/kL
		Aberdeen/Scone	400	✓	Meter Size	60c/kL
144	Upper Lachlan	Crookwell	469	×	Land Value	
		Gunning	267	×	Land Value	
135	Glen Innes Severn	Glen Innes	260	✓	Uniform Access Charge	
145	Warrumbungle		275	✓	Uniform Access Charge	

Table 7C - Sewerage - 2004/05 Non-Rateable Tariffs

	WATER UTILITY	Town	Property	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value? (2)	Basis for Access Charge *Proportional to square of size of service connection or water meterxsewer discharge factor (3)	Sewer Usage Charge (for the estimated volume discharged to sewerage system = water usage X appropriate sewer discharge factor) (4)	Reduction+ for Non-rateable properties
1	Albury	Albury		148	✓	Meter Size (eg. 25mm: $231, 50mm: $924)	182c/kL	N
2	Armidale Dumaresq	Armidale	Schools, Churches	Nil		$38.80/WC, $31/Urinal		L
			Others	Nil		$77.10/WC, $31/Urinal		
3	Ballina	Ballina	Hospitals, Schools and Churches			$110/WC		L
			Other than Schools and Churches			$165/WC		
4	Balranald	Balranald		Nil				L
		Euston						
5	Barraba	Barraba	Schools	Nil	✓	$45/cistern		S
			Others	Nil	✓	$90/cistern		
6	Bathurst Regional	Bathurst	Schools and Churches excluding church residences	307	✓	Service Connection Size*(25mm:$480, 40mm:$1229)	78c/kL	N
7	Bega Valley	Bega Valley	Nursing Homes & Public Hospitals	490	✓	Meter size (eg. 40mm $1960), 300kL water usage allowance per day per resident, Standard Charge above the Allowance, Standard Availability Charge if the above is below the Availability Charge	138c/kL	L
			Non-Profit Community Organisations	Nil			138c/kL	
			Religious Bodies	Nil			138c/kL	
8	Bellingen	Bellingen, Urunga, Dorrigo		438	✓	Uniform Access Charge	102c/kL, Sewage Effluent=Water Consumption x Discharge Factor (A), A=400kL if charge is levied, else 0 kL, minimum charge payable is zero	N
9	Berrigan	Berrigan		Nil	✓	Uniform Access Charge, after two WCs $68/WC		L
		Barooga		Nil	✓	Uniform Access Charge, after two WCs $92/WC		
		Finley		Nil	✓	Uniform Access Charge, after two WCs $68/WC		
		Tocumwal		Nil	✓	Uniform Access Charge, after two WCs $68/WC		
11	Bland	Bland			×	Land value		L
12	Blayney	Blayney	Schools	Nil	✓	$39.60/WC, $30.20/Cistern		L
13	Bogan	Nyngan	all	370	✓	Uniform Access Charge		S
14	Bombala	Bombala		Nil	×	Schools: $64/WC, Churches: $75 perWC, Hospital: $95 per WC		L
		Delegate		Nil	×	Land value		
15	Boorowa	Boorowa		212	✓	Uniform Access Charge		N
16	Bourke	Bourke		459	✓	Uniform Access Charge		N
17	Brewarrina	Brewarrina		414	×	$35/Urinals, $105/WC up to 5, 5+ $35/WC		N
		Goodooga		180	×	$35/Urinals, $105/WC up to 5, 5+ $35/WC		
18	Australian Inland	Broken Hill	State Schools, Religious bodies			$ 71/ WC + If Urinals $80/Cistern		L
19	Byron	Byron		464	✓	$464 for up to 1 kL/d of usage, $446 for each additional kL/d of usage	72c/kL	N
20	Cabonne	All towns	Schools & Churches			$39.80/WC, $29.90/Urinal		L
		All towns	Others			$76.30/WC, $29.90/Urinal		
21	Carrathool	Hilston, Goolgowi	Police Stations, Hospitals, Schools, etc	Nil	✓	$66/WC, $33/Urinals		L
			Churches	Nil	✓	$33/WC, $16.50/Urinals		
22	Central Darling	Wilcannia		350	✓	Uniform Access Charge		N
24	Cobar			Nil	✓	Uniform Access Charge for 3 WCs, additional $60/WC		N
27	Coolamon	Coolamon		240	✓	for greater than 2 toilets, $70/WC		N
		Ganmain		240	✓	for greater than 2 toilets, $70/WC		
28	Cooma-Monaro	Cooma		485	✓			N
30	Coonamble	Coonamble				$55/Cistern or Toilet		L
		Gulargambone				$55/Cistern or Toilet		
31	Cootamundra	Cootamundra	Schools/Churches	Nil		$63.70/Pedestal		L
			Other Non-Rateables			$122.40/Pedestal, $51.50/Urinal		
			Hospital/Nursing Home Plan Sterilisers/slop hopper			122.40/Pedestal		
34	Cowra	Cowra		290	✓	Uniform Access Charge		N
37	Deniliquin	Deniliquin	Schools & Churches	Nil	✓	$48/WC $36/Cistern		S
			Others	Nil	✓	$91/WC $36/Cistern		
38	Dubbo	Dubbo	Schools & Churches	Nil		$53/WC, $106/Urinal		L
39	Dungog	Dungog	Schools & Churches	Nil		$162/WC, $135/Urinal		S
			Nursing Homes			$81/WC		
			Others			$162/WC, $135/Urinal		

+ L: Large Reduction in comparison with non-residential tariff
S: Significant Reduction
N: No Reduction

Table 7C - Sewerage - 2004/05 Non-Rateable Tariffs

	WATER UTILITY	Town	Property	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value? (2)	Basis for Access Charge *Proportional to square of size of service connection or water meterxsewer discharge factor (3)	Sewer Usage Charge (for the estimated volume discharged to sewerage system = water usage X appropriate sewer discharge factor) (4)	Reduction+ for Non-rateable properties
40	Eurobodalla	Eurobodalla		470	✓	Meter Size(Availability Factor based)* (eg. 40mm $1880)		N
42	Forbes	Forbes	All Non-Rateable	472		for more than 7 WCs or Urinal: $66.50/WC or Urinal		N
43	Gilgandra	Gilgandra		145	✓	Servie connection size	30c/kL	N
44	Glen Innes Severn	Glen Innes		260	✓	Uniform Access Charge +80c/kL for all water >250kL (reduced to 40c/kL if less than 50% into Sewer)		N
	Severn	Severn	Schools & Churches		✓	$84/Pedastal		L
45	Gloucester	Gloucester	Schools,Churches	325		Uniform Access Charge+Volumetric Charge		N
49	Gosford	Gosford	Non-Residential & Non-Rateable	Nil			75.5c/ kL	L
50	Goulburn	Goulburn		Nil	×	Meter Size*		L
		Marulan		Nil	×	Meter Size*		
52	Griffith	Griffith	Churches	Nil		$60/WC or Urinal		L
			Schools	Nil		$75/WC & $65/Urinal		
			Others	Nil		$100/WC & $70/Urinal		
53	Gundagai	Gundagai	All Non-Rateable	70+usage>=195		Service Connection(eg25mm:110)+Usage 90c/kL, minimum Charge$195		L
54	Gunnedah	Gunnedah, Curlewis	Schools and Churches	Nil		$45/WC & $40/Urinal		S
			Others	Nil		$85/WC & $40/Urinal		
56	Guyra	Guyra	All Non-Rateable			$106/WC or Urinal		L
57	Harden	Harden	Schools and Residences, Religious bodies			$67.85/WC, $53.20/Cistern		S
						$133.10/WC, $53.20/Cistern		
58	Hastings	Hastings	Churches and halls	254	✓	Uniform Access Charge	60c/kL for regional shopping centers, Caravan Parks, Flats, Retirement Homes, Motels, Clubs, Hotels & Hostels	S
			Others	315	✓			
58-A	Hawkesbury	Category 1, Vol < 1kL/d		430	✓	Uniform Access Charge		N
		Category 2, Vol : 1kL to 5 kL/d		2154		Uniform Access Charge		
		Category 3, Vol < 5kL to 10 kL/d		4308		Uniform Access Charge		
		Category 4, Vol : 10kL to 20 kL/d		8610		Uniform Access Charge		
		Category 5, Vol > 20 kL/d		8610		Uniform Access Charge	if waste generated > 20 kL/d, 155c/kL is charged	
59	Hay	Hay		363	✓	Uniform Access Charge		N
62	Hunter Water			432	✓	Meter Size* (Appropriate sewer discharge factor is applied to obtain the access charge. eg. 40 mm with 0.8 discharge factor = access charge of $1,382)	41c/kL	
63	Inverell	Inverell, Ashford, Delungra, Gilgai	Schools	Nil		$38/WC, $31/Urinal		S
			Other	Nil		$66/WC, $31/Urinal		
64	Jerilderie	Jerilderie	Schools, etc	Nil		$37/WC, $35/Urinal		L
			Others	Nil		$70/WC, $40/Urinal		
65	Junee	Junee	School, Churches and Hospitals	Nil	✓	$31.90/WC, $24.20/Urinal		S
			Aged Care Hostel/Unit	Nil	✓	$48.40/Unit		
			Others	Nil	✓	$71.10/WC, $27.30/Urinal		
66	Kempsey	Kempsey	School & Churches	Nil	✓	$249.50/WC, 249.50$/cistern		S
			Non-profitable community based organisations	Nil	✓	$124.75/WC, $124.75cistern		
67	Kyogle	Kyogle,Wooden Bong, Bonalbo		175	✓	Uniform Access Charge (Service Connection)+Usage, (minimum $474 including Trade waste Charges)	82c/kL	N
68	Lachlan	Lachlan	Schools			$40/WC, $30/Urinal		L
			Others			$70/WC, $30/Urinal		
69	Leeton	Leeton	Churches &Schools	Nil		$81.10/WC, $32.45/Cistern		L
			Others	Nil		$40.55/WC, $32.45/Cistern		
70	Lismore	Lismore, Nimbin & Perradenya		412	✓	Uniform Access Charge		N
71	Lithgow	Lithgow,Wallerawang, Portland				Land Value		L
72	Lockhart	Lockhart, The Rock				Land value	$32/WC, $24/Urinal	L
		Others				Land value	$60/WC, $24/Urinal	
78	MidCoast County			390	✓	Meter Size*	135c/kL, minimum charge $780	N
80	Moree Plains Shire	Moree, Mungindi	Non Rateable Properties		✓	$71/Pedestal $71/Urinal	100c/kL	N
83	Murray	Moama, Mathoura	Church	318	✓	Uniform Access Charge		N
			Schools	318	✓	$317.95/25 children		

+L: Large Reduction in comparison with non-residential tariff
S: Significant Reduction
N: No Reduction

Table 7C - Sewerage - 2004/05 Non-Rateable Tariffs

	WATER UTILITY	Town	Property	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value? (2)	Basis for Access Charge *Proportional to square of size of service connection or water meterxsewer discharge factor (3)	Sewer Usage Charge (for the estimated volume discharged to sewerage system = water usage X appropriate sewer discharge factor) (4)	Reduction+ for Non-rateable properties
84	Murrumbidgee	Darlington Point		346		Land Value		N
		Coleambally		183		Land Value		N
		Churches	Churches	25				L
86	Muswellbrook	Muswellbrook, Denman	Schools, Religious Bodies	Nil	✓	$50.15/WC, $41/Cistern		L
			Others	Nil	✓	$101/WC, $41/Cistern		
87	Nambucca	Nambucca	State Schools		✓	$100/WC, $100/Urinal		L
			Religious bodies & Others		✓	$80/WC, $80/Urinal		
88	Narrabri	Narrabri		316	✓	$63/Pedestal, $47/Cistern		N
		Wee Waa		349	✓	$70/Pedestal, $52/Cistern		
		Bogabri		246	✓	$49/Pedestal, $37/Cistern		
89	Narrandera	Narrandera	Schools	Nil		$55.40/WC, $43.20/Urinal		L
			Religious bodies			$55.40/WC, $43.20/Urinal		
			All others			$104.15/WC, $43.20/Urinal		
90	Narromine	Narromine, Trangie	Schools and Religious Bodies			$45/WC, $40/Urinal		S
			Others			$90/WC, $40/Urinal		
92	Oberon	Oberon	Non-Rateable	290/ET	✓			L
			Schools	$4.35/Student	✓			
93	Orange	Orange	All	e connection Size 40mm:$388.36+	✓		128c/kL	N
94	Parkes	Parkes	Schools and Chrches	Nil		$98/WC, $39/Urinal		L
			Others			$51.50/WC, $39/Urinal		
97	Queanbeyan	Queanbeyan	Schools and Churches			$50/WC		L
99	Richmond Valley	Richmond		(215+(1.38xC))xSDF	✓			N
105	Shoalhaven	Shoalhaven		510	✓	Uniform Access Charge	80 c/kL, for discharges over 300kL/a	N
106	Singleton	Singleton	Non-Rateable Properties	Nil		$38/WC and $27.50/Urinals		L
107	Snowy River	Snowy River		316	✓	Uniform Access Charge+usage	56c/kL for estimated sewage volume, based on discharge factors of 0.88, 0.63 and 0.56 for the winter, summer/spring and autumn 4 monthly periods respectively. The winter usage charge provides an upper limit for usage charges in the summer/spring and autumn periods respectively.	N
108	Sydney Water			328	✓	Meter Size* (eg. 40mm: $1,280, 100mm: $7,980, 300mm: $71,800)	106c/kL for discharges over 500kL/a (1.37kL/d)	
110	Tamworth Regional	Tamworth		Nil	✓	$52.40/WC or Urinal		S
111	Temora	Temora		170	✓	up to 3 WCs		N
112	Tenterfield	Tenterfield	Schools, Churches & Community Managed services	Nil		$55/WC, $45/Cistern		L
			Others			$102/WC, $45/Cistern		
113	Tumbarumba	Tumbarumba		Nil	✓	$30/WC, $23/Urinal		L
		Khancoban		Nil		$24/WC, $19/Urinal		
114	Tumut	Tumut	Schools,Police Station, 1st WC/Urinal	488	✓	Uniform Access Charge		S
			Curches & Charites	122	✓			
115	Tweed	Tweed	Schools and Churches	435	✓	Uniform Access Charge	>400kL@ 68c/kL	N
			Public Hospitals	435	✓	Uniform Access Charge	50% of the above	
116	Uralla	Uralla		275	✓	Uniform Access Charge	100c/kL	N
116A	Urana			189		Uniform Access Charge		N
117	Wagga Wagga	Wagga Wagga		559	✓	Access charge includes first 4 pan equivalent fixtures. Additional $67.50/equivalent fixture		N
118	Wakool	Barham, Moulamein, Murray Down	Churches	Nil		15% of SC per cistern		L
			Hospitals/Nursing homes			1xSC+15% of SC per cistern		
			Others			1xSC		
119	Walcha	Walcha	Schools			Uniform Access Charge +additional $41.40/WC and $32.10/Urinal		L
			Others			Uniform Access Charge +additional $82.80/WC and $32.10/Urinal		
120	Walgett			274	✓	$40.85/WC or Urinal		N

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S: Significant Reduction
N: No Reduction

Table 7C - Sewerage - 2004/05 Non-Rateable Tariffs

WATER UTILITY		Town	Property	Access Charge (or Minimum) ($) (1)	Access Charge Independent of Land Value? (2)	Basis for Access Charge *Proportional to square of size of service connection or water meterxsewer discharge factor (3)	Sewer Usage Charge (for the estimated volume discharged to sewerage system = water usage X appropriate sewer discharge factor) (4)	Reduction+ for Non-rateable properties
121	Warren	Warren		465	✓			N
		Nevertire		490	✓			
121-A	Warrumbungle Shire	Coolah				$73.95/WC, $29.95/Urinal		L
		Coonabarabran	Schools & Hospitals			$75/WC, $38/Urinal		L
		Baradine		623				N
122	Weddin	Grenfell	Schools, Religious Bodies	Nil	✓	$39/WC, $32/Cistern		N
			Others	Nil	✓	$73/WC, $32/Cistern		
123	Wellington	Wellington	Schools, School Residences, Religious bodies	Nil	✓	$100/WC or Cistern, $70 per additional Cistern		L
124	Wentworth	Wentworth, Nimatjira	Church	Nil	✓	$36/WC, $35Urinal		L
			Schools	Nil	✓	$36/WC, $35Urinal		
125	Wingecarribee	Wingecarribee		402+Usage	✓	Meter Size*	40c/kL for all consumption	N
126	Wyong	Wyong	Religious bodies and Schools			$50.68/WC, $17.95/Urinal		L
129	Yass Valley	Yass	All	370				N
130	Young	Young	Schools and associated residences/churches	Nil	✓	$78.75/WC, $63/Urinal		S
			Church residences and Others	Nil		$157.50/WC		
131	Albury City	Albury		148	✓	Meter Size (eg. 25mm: $231, 50mm: $924)+usage	182c/kL	N
132	Clarence Valley	Maclean & Yamba	Schools	Nil	✓	$43/WC, $39/Urinals		L
			Others	Nil	✓	$86/WC, $39/Urinals		L
		Copmanhurst	all	600	✓	>2WC, $60/WC		N
		Grafton	Schools and Churches	Nil		$35.20/WC or Urinal		L
			Others	Nil		$71.40/WC or $35.20/Urinal		L
		Pristine Waters, Coutts Corssing		660				L
133	Coffs Harbour	Coffs Harbour	Schools/Church	Nil		$39/WC or Cistern		L
			Other Non-Rateables	Nil		$62/WC or Cistern		
134	Corowa	Corowa				$75/WC, $37/Urinal		N
		Mulwala						
		Howlong						
135	Goulburn Mulwaree	Goulburn		Nil	×	Meter Size*		L
		Marulan		Nil	×	Meter Size*		
136	Greater Hume	Henty, Culcairn, Walla Walla	Schools & Churches	Nil		$29/WC, $22/Cistern		L
			Others	Nil		$55/WC, $22/Cistern		
137	Gwydir	Bingara		393	✓	Uniform Access Charge		N
		Warialda		335	✓	Uniform Access Charge		
138	Liverpool Plains	Quirindi	Schools			$32/WC, $25/Cistern		L
			Others			$63/WC, $25/Cistern		
		Werris Creek	Schools & Churches			$45/WC, $37/Cistern		L
			Others			$84/WC, $38/Cistern		
139	Mid Western Regional	Mudgee & Gulgong		396	✓	Uniform Access Charge		N
		Rylstone		444	✓	Uniform Access Charge		
140	Palerang Council	Bungendore, Captains Flat, Braidwo	Schools & Churches			$30/WC, $25/Urinal		L
			Others			$60/WC, $25/Urinal		
141	Tamworth Regional	Tamworth		Nil	✓	$52.40/WC or Urinal		S
142	Upper Humter	Murrurundi		400	✓	Meter Size	60c/kL	N
		Merriwa		400	✓	Meter Size	60c/kL	
		Aberdeen/Scone		400	✓	Meter Size	60c/kL	
143	Upper Lachlan	All towns	Schools			$36/WC, $27/Urinal		L
			Others			$36/WC, $27/Urinal		

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PERFORMANCE INDICATOR TABLES

This section contains the following Performance Indicator Tables:

Table 8 - 2003/04 Water Consumptions in Non-metropolitan NSW

	WATER UTILITY	SOURCE CATCHMENT	WATER CONSUMPTION - Potable Town Water Supply (ML)									WATER SUPPLIED - Town Water (ML)			RECYCLED WATER (ML)		CONSUMPTION (ML)		
			Residential	Commercial	Industrial	Rural	Institutional	Bulk Sales	Public Parks & Gardens	Water Losses[2,5]	Leakage[5]	Potable Town Water Supplied =(1)+(2)+(3)+(4)(5)+(6)+(7)+(8) or total reported	Non-Potable Town Water Supplied (for outdoor uses or industry)	Total Town Water Supplied[6] (Potable + Non-potable - Recycled) =(10)+(11)-(13)	For Non-Potable Town Water Supply[8]	For Agricultural or Other Uses[9]	Surface Water	Ground Water	Bulk Purchases
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1	Albury	Murray	6,032	1,245	605		380	1,112	64	***1,049***	***629***	10,500		10,500		4,910	10,170		
2	Armidale Dumaresq	Macleay	1,725	311			497		36	***285***	***171***	2,850	60	2,910		1,040	3,250		
3	Ballina (Reticulator)	Tweed/Richmond	2,623	510		46	235			697	***247***	4,110	320	4,430		47	131	14	3,965
4	Balranald (Dual Supply)	Murrumbidgee	207	5						***24***	***14***	240	1,200	1,440			1,430		
5	Barraba	Namoi	104	26					11	***16***	***9***	***160***	10	170		133	141		
6	Bathurst Regional	Castlereagh/Macquarie										6,810		6,810			6,810		
7	Bega Valley (Unfiltered)	Bega	1,888	990	100	204	239	13	135	***397***	***238***	3,970		3,970		575	1,800	2,330	
8	Bellingen (Unfiltered)	Bellinger	803	306				1	5	357	287	1,470		1,470			205	1,270	
9	Berrigan (Dual Supply)	Murray	838	80					45	201	***70***	1,160	1,100	2,260		85	2,260		
10	Bingara	Gwydir	171	14		6	5	45	80	42	22	360		360			363		
11	Bland	**No WS**														65			
12	Blayney	**No WS**														207			
13	Bogan	Castlereagh/Macquarie								***92***	***55***	920		920			761		160
14	Bombala	Snowy	283	9	8		9		1	37	***21***	350		350		35	348		
15	Boorowa	Lachlan										***210***		210					
16	Bourke (Dual Supply)	Darling	616							***68***	***41***	680	2,250	2,930		240	2,930		
17	Brewarrina	Castlereagh/Macquarie	370							***41***	***25***	***410***	800	1,210		160	1,500	100	
18	Australian Inland	Darling	3,012	251	1,192	64	178		7	781	***329***	5,490	560	6,050		897	1,480		5,113
19	Byron (Reticulator)	Tweed/Richmond	1,829	577		76		20		479	***179***	2,980	580	3,560		580	458		2,523
20	Cabonne	Lachlan				206				37	***15***	240	120	360		43	366	5	
21	Carrathool (Groundwater)	Murrumbidgee	166			104				***82***	***49***	820	880	1,700				792	509
22	Central Darling (Dual Supply)	Darling								***17***	***10***	***170***	530	700			633		
23	Central Tablelands	Lachlan	952	202	176	297	68	282	34	145	***129***	2,160		2,160			1,990	169	
24	Cobar (Dual Supply)	Darling	1,297						17	***146***	***88***	1,460	200	1,660		98	79		1,443
24-A	Cobar WB	Darling	1,511		2,494	23			17	207	***255***	4,250		4,250					4,150
25	Coffs Harbour (Unfiltered)	Clarence	3,895	1,016	175		128	69	141	***603***	459	6,030	120	6,030	120	373	3,890		1,971
26	Coolah	Castlereagh/Macquarie	280	30	10	10			20	***39***	***23***	***390***		390		220	50	308	
27	Coolamon	**No WS**																	
28	Cooma-Monaro	Murrumbidgee								***170***	***102***	1,700		1,700			1,690	73	
29	Coonabarabran	Castlereagh/Macquarie								***95***	***57***	950		950		75	950		
30	Coonamble (Groundwater)	Castlereagh/Macquarie	1,289	171	14	10	12	4	133	***181***	169	1,810		1,810		154	9	1,810	9
31	Cootamundra (Reticulator)	Murrumbidgee	668	53	41		53		7	180	68	1,000		1,000		230			1,004
32	Copmanhurst (Unfiltered)	**No WS**																	
33	Corowa	Murray	1,998	100	795				200	***344***	***206***	3,440		3,440		461	3,290		
34	Cowra	Lachlan	1,277	131	395	359	18	10		366	***153***	2,560		2,560			2,600		
35	Crookwell	Lachlan	282							***31***	***19***	310		310			282		
36	Culcairn (Groundwater)	Murray	133	13	2	11	26	3	21	30	***14***	***240***		240		105		237	
37	Deniliquin	Murray	1,838	282	45	165	17	1	1	***261***	***157***	2,610	720	3,330		629	3,080		
38	Dubbo	Castlereagh/Macquarie	6,042	1,565	195		465		632	***989***	***593***	9,890		9,890		1,620	7,790	2,460	
39	Dungog (Reticulator)	Hunter	328	71		38	61	10		215	110	720		720		219	47		674
40	Eurobodalla (Unfiltered)	Clyde	3,100	1,100			244	104	288	***537***	***322***	5,370	220	5,590		219	4,970		
41	Fish River WS (Unfiltered, Bulk Supplier)	Castlereagh/Macquarie	216					4,705			***524***	4,920	6,730	11,700			12,180		
42	Forbes	Lachlan	1,273	262	71	6	87	329	57	***232***	***139***	2,320	90	2,410		10	2,260	92	
43	Gilgandra (Groundwater)	Castlereagh/Macquarie	507	160	80	25	15	20	120	***103***	***62***	1,030		1,030		313		957	
44	Glen Innes	Moonie/Macintyre	444	98	2		32		3	125	65	700		700			704		
45	Gloucester	Manning	323	67	48		14	25	5	76	***34***	560		560			559		
46	Goldenfields (Bulk Supplier)	Murrumbidgee						8,619		776	766	9,400	170	9,560			4,360	4,810	224
47	Goldenfields (Reticulator)	Murrumbidgee	2,190	398	99	2,022	151		232	566	***339***	5,660		5,660				2,130	3,527
48	Goldenfields (Combined)	Murrumbidgee	2,190	398	99	2,022	151	3,527	232	776	766	9,400	170	9,560			4,360	4,810	224
49	Gosford	Hawkesbury	12,164	1,528	594	23	480		226	1,934	1,494	16,900		16,900		152	16,820		138
50	Goulburn	Hawkesbury	1,245	222	261	3	297		7	559	***156***	2,590		2,590		1,770	2,660		
51	Grafton (Unfiltered)	Clarence	1,388	260	285	37	125		57	***239***	***143***	2,390		2,390		125			2,152

Table 8 - 2003/04 Water Consumptions in Non-metropolitan NSW

	WATER UTILITY	SOURCE CATCHMENT	WATER CONSUMPTION - Potable Town Water Supply (ML)									WATER SUPPLIED - Town Water (ML)			RECYCLED WATER (ML)		CONSUMPTION (ML)		
			Residential	Commercial	Industrial	Rural	Institutional	Bulk Sales	Public Parks & Gardens	Water Losses[2,5]	Leakage[5]	Potable Town Water Supplied =(1)+(2)+(3)+(4)+(5)+(6)+(7)+(8) or total reported	Non-Potable Town Water Supplied (for outdoor uses or industry)	Total Town Water Supplied[6] (Potable + Non-potable - Recycled) =(10)+(11)-(13)	For Non-Potable Town Water Supply[8]	For Agricultural or Other Uses[9]	Surface Water	Ground Water	Bulk Purchases
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
52	Griffith	Murrumbidgee	3,983	1,876		667			911	***826***	***496***	8,260	750	9,010		210			8,813
53	Gundagai	Murrumbidgee	258	65	65	22	22		80	90	40	600		600		105	602		
54	Gunnedah (Groundwater)	Namoi	1,351	229	452	10		110	245	***266***	***160***	2,660		2,660		502		2,430	
55	Gunning (Groundwater)	Lachlan	86							***10***	***6***	***100***		100			66	20	
56	Guyra	Gwydir	261					14		36	***19***	310		310			266		45
57	Harden (Reticulator)	Murrumbidgee								***88***	***53***	880	230	1,060	47	138			877
58	Hastings (Unfiltered)	Hastings	4,404	969	22	62	370		13	664	390	6,500		6,500		249	6,500		
58-A	Hawkesbury	**No WS**														240			
59	Hay (Dual Supply)	Murrumbidgee								***39***	***23***	390	1,130	1,510			1,510		
60	Holbrook	**No WS**														23			
61	Hume	Murray	855					7		150	93	1,050		1,050		97	328		719
62	Hunter Water	Metropolitan																	
63	Inverell	Gwydir	1,094	191	340		120	13	105	212	***125***	2,080		2,080			2,150	27	
64	Jerilderie (Dual Supply)	Murray						0		***12***	***7***	120	150	270		40	255		
65	Junee	**No WS**														154			
66	Kempsey (Groundwater)	Macleay	1,938	372	281	396	82	24	23	926	522	4,040	260	4,300		256		4,040	
67	Kyogle	Clarence	293	13			6	3		46	***22***	360	100	460		71	397		65
68	Lachlan	Lachlan	1,166	251		116		37	7	***175***	***105***	1,750	230	1,980		165	1,520		62
69	Leeton	Murrumbidgee	1,770	270	350	35	40	12	200	570	390	3,250		3,250			3,250		
70	Lismore (Reticulator)	Tweed/Richmond	2,270	862		152				378	220	3,660		3,660		298	122		3,540
71	Lithgow	Hawkesbury	1,441	435			52			***214***	***129***	2,140		2,140			1,540		968
72	Lockhart	**No WS**														3.4			
73	North Coast Water (Unfiltered)	Clarence	2,050	404	478	594		4	30	990	530	4,550	50	4,600			4,550		
74	Maclean	**No WS**														117			
75	Manilla	Namoi	362	20	25				75	***54***	***32***	***540***		540		230	487		
76	Merriwa	Hunter	153	18	2	19	15	1	44	82	52	330		330		20		332	
77	MidCoast (Manning - Unfiltered)	Manning																	
78	MidCoast (Great Lakes - Unfiltered)	Manning																	
79	MidCoast (Combined - Unfiltered)	Manning	7,188	1,003	535		70		75	2,425	1,500	11,300		11,300		39	10,600	700	
80	Moree Plains (Groundwater)	Gwydir	1,138	800	80			1	52	279	***141***	2,350		2,350		404	212	2,140	
81	Mudgee (Unfiltered)	Castlereagh/Macquarie	1,300	150	50	20	40		300	***207***	***124***	2,070	10	2,070	10	80	400	1,600	
82	Mulwaree	Hawkesbury	41	22						12	***7***	120		120		28	120		
83	Murray (Dual Supply)	Murray	425	229	4	35	8		11	***79***	***47***	790	760	1,550		200	1,800		
84	Murrumbidgee (Groundwater)	Murrumbidgee	565							129	***42***	690		690		10		694	
85	Murrurundi	Hunter	155						1	***17***	***10***	170		170			180	45	
86	Muswellbrook	Hunter	1,526	372	23		278		108	317	***157***	2,620	870	2,630	867	241	2,310	312	
87	Nambucca (Groundwater)	Bellinger	1,006	240	240	122	13		2	190	***109***	1,810		1,810		119		1,810	
88	Narrabri (Groundwater)	Namoi								399	***224***	3,740		3,740				3,740	
89	Narrandera (Groundwater)	Murrumbidgee	950	150	15	15	5		165	281	***95***	1,580	50	1,630				1,580	
90	Narromine (Groundwater)	Castlereagh/Macquarie	1,175	25						237	***86***	1,440	100	1,540			108	1,430	
91	Nundle (Groundwater)	Namoi	62	21						10	***6***	90		90			93		
92	Oberon (Reticulator)	Castlereagh/Macquarie	223	28	398			2	35	***76***	***46***	760		760					740
93	Orange	Castlereagh/Macquarie								***493***	***296***	4,930	3,360	4,930	3,360	18	4,930		
94	Parkes	Lachlan	1,909	125	3,435	10	65		500	***672***	***403***	6,720		6,720		280	1,660	4,300	
95	Parry (Groundwater)	Namoi	268	138	27	42			2	79	***33***	560		560		157	37	519	
96	Pristine Waters (Unfiltered)	Clarence	386	45						117	***37***	620		620		34	260		360
97	Queanbeyan (Reticulator)	Murrumbidgee	3,402					1	226	405	***242***	4,030		4,030		66			4,033
98	Quirindi (Groundwater)	Namoi	345	47	9	16	21	4	63	74	35	580		580				579	
99	Richmond Valley	Tweed/Richmond								***293***	***176***	2,930		2,930		196	2,390		551
100	Riverina (Groundwater)	Murrumbidgee	8,850	1,679	914	984	943	405	448	1,887	***967***	16,100		16,100			2,630	13,420	59
101	Rous (Bulk Supplier)	Tweed/Richmond	780					10,661		18	5	11,500		11,500			11,350	105	
102	Rylstone	Castlereagh/Macquarie	493							***55***	***33***	550		550					

Table 8 - 2003/04 Water Consumptions in Non-metropolitan NSW

	WATER UTILITY	SOURCE CATCHMENT	WATER CONSUMPTION - Potable Town Water Supply (ML)									WATER SUPPLIED - Town Water (ML)			RECYCLED WATER (ML)		CONSUMPTION (ML)		
			Residential	Commercial	Industrial	Rural	Institutional	Bulk Sales	Public Parks & Gardens	Water Losses[2,5]	Leakage[5]	Potable Town Water Supplied =(1)+(2)+(3)+(4)(5)+(6)+(7)+(8) or total reported	Non-Potable Town Water Supplied (for outdoor uses or industry)	Total Town Water Supplied[6] (Potable + Non-potable - Recycled) =(10)+(11)-(13)	For Non-Potable Town Water Supply[8]	For Agricultural or Other Uses[9]	Surface Water	Ground Water	Bulk Purchases
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
103	Scone (Unfiltered)	Hunter	709	202					49	779	***104***	1,740		1,740		533	1,600	136	
104	Severn (Unfiltered)	Moonie/Macintyre	22	2	0		1		1	***3***	***2***	***30***		30		13	29		
105	Shoalhaven	Shoalhaven	9,262	1,774	2,182	566	142		156	***1,565***	***939***	15,600	3,270	18,900		2,050	17,330		85
106	Singleton	Hunter	1,460	643	21	43	117			515	***168***	2,800		2,800		1,120	2,800		
107	Snowy River (Unfiltered)	Snowy	1,789	199						***221***	***132***	2,210		2,210			1,900		
108	Sydney Water	Metropolitan																	
109	Tallaganda (Unfiltered)	Shoalhaven										***180***		180					
110	Tamworth	Namoi	4,180	2,207	120	43	306	11	346	1,235	***507***	8,450	170	8,620			8,480		
111	Temora	**No WS**														360			
112	Tenterfield	Moonie/Macintyre	368	35	4	1	1	99	3	***57***	***34***	570	120	690		105	524		9
113	Tumbarumba	Murray							20	***43***	***26***	430		430			429		
114	Tumut	Murrumbidgee	1,094	183	577	14	132	114	8	***236***	***141***	2,360	1,650	4,010		9	1,990		
115	Tweed	Tweed/Richmond	5,690	1,341	152	170	239		236	1,709	***572***	9,540		9,540		354	10,070		
116	Uralla	Gwydir	220	41				1	12	41	29	320		320			315		
116-A	Urana	**No WS**																	
117	Wagga Wagga	**No WS**														359			
118	Wakool	Murray	629	136		1			8	***88***	***53***	***880***	470	1,350			1,500		124
119	Walcha	Namoi	115	46	1	2	10		8	43	***14***	230		230			225		
120	Walgett (Dual Supply non-potable)	Namoi								***34***	***20***	340	1,300	1,640		467	1,120	516	
121	Warren (Dual Supply)	Castlereagh/Macquarie	170	23			11		2	167	***22***	370	430	800				372	515
122	Weddin	**No WS**														37			
123	Wellington	Castlereagh/Macquarie	760	128	25		49		39	184	178	1,190		1,190			1,190		
124	Wentworth (Dual Supply)	Darling								***56***	***34***	560	2,190	2,760		340	2,710		
125	Wingecarribee	Hawkesbury	3,537	710		215			38	674	***310***	5,170		5,170		16	2,070		3,745
126	Wyong	Tuggerah Lake	10,047	3,420						1,123	***875***	14,600		14,600			15,070		820
127	Yallaroi (Groundwater)	Gwydir	255	33		24	35	8	19	137	33	510	50	560		45		511	
128	Yarrowlumla (Groundwater)	Murrumbidgee	347							***39***	***23***	390		390			57	279	11
129	Yass Valley	Murrumbidgee								200	100	850		850		168	832	42	
130	Young (Reticulator)	Murrumbidgee	893	50	310		25		50	263	***95***	1,590		1,590		101			1,591
131	Albury City	Murray										10,668		10,668					
132	Clarence Valley	Clarence										7,560		7,610					
133	Coffs Harbour	Clarence										6,030		6,030					
134	Corowa	Murray										3,892		3,892					
135	Glen Innes Severn	Moonie/Macintyre										730		730					
136	Goulburn Mulwaree	Hawkesbury										2,710		2,710					
137	Greater Hume	Murray										671		671					
138	Gwydir	Gwydir										870		920					
139	Liverpool Plains	Namoi										832		832					
140	Mid Western Regional	Castlereagh/Macquarie										2,620		2,620					
141	Palerang	Shoalhaven										570		570					
142	Tamworth Regional	Namoi										9,582		9,762					
143	Upper Hunter	Hunter										2,206		2,206					
144	Upper Lachlan	Lachlan										410		410					
145	Warrumbungle	Castlereagh/Macquarie										1,340		1,340					

Table 8 - 2003/04 Water Consumptions in Non-metropolitan NSW

WATER UTILITY	SOURCE CATCHMENT	WATER CONSUMPTION - Potable Town Water Supply (ML)									WATER SUPPLIED - Town Water (ML)			RECYCLED WATER (ML)		CONSUMPTION (ML)		
		Residential	Commercial	Industrial	Rural	Institutional	Bulk Sales	Public Parks & Gardens	Water Losses[2,5]	Leakage[5]	Potable Town Water Supplied =(1)+(2)+(3)+(4)+(5)+(6)+(7)+(8) or total reported	Non-Potable Town Water Supplied (for outdoor uses or industry)	Total Town Water Supplied[6] (Potable + Non-potable - Recycled) =(10)+(11)-(13)	For Non-Potable Town Water Supply[8]	For Agricultural or Other Uses[9]	Surface Water	Ground Water	Bulk Purchases
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Total for 79 utilities reporting column (1) together with (2) and/or (3)		**151,000**	**34,000**	**16,000**	**8,000**	**7,000**	**6,000**	**7,000**	**34,000**	**19,000**	**264,000**	**14,500**	**278,000**	**1,000**	**22,900**	**184,000**	**51,000**	**39,000**
Percentage of Total Potable Supply		**57%**	**13%**	**6%**	**3%**	**3%**	**2%**	**3%**	**13%**	**7%**								
TOTAL (all water utilities)[4]											**301,000**	**28,000**	**325,000**	**4,400**	**26,400**	**215,000**	**57,000**	**48,000**

Notes:

1. Source: Data provided by the 126 non-metropolitan NSW water utilities for the 2003/04 NSW Water Supply and Sewerage Benchmarking Report. 113 of these utilities are responsible for water supply. Columns (13) and (14) report the volume of recycled water use and include a further 13 utilities which are responsible for sewerage only.
2. For consistency with national performance reporting, water losses (column (8)) now include leakage (column (9)).
3. Where a water utility has not reported its total potable town water supplied in 2003/04 (column (10)), the previously reported supply has been used and is shown in ***italics bold.***
4. The total consumptions for all non-metropolitan water utilities shown in the bottom line of the above table exclude double counting where water is supplied by a bulk supplier or where LWUs have been amalgamated.
5. A review of water losses for NSW water utilities responsible for reticulating water supply to residential customers has indicated a minimum of 10% of total potable town water supplied. The values for any such utilities reporting less than 10% water losses (column (8)) have therefore been increased to 10% (shown in ***italics bold***), and the reported values for total town water supplied (column (10)) have been increased accordingly. Similarly, as minimum leakage levels for such u have been found to be at least 6% of the total potable town water supplied, reported values of leakage of less than 6% (column (9)) have been increased to 6% (shown in ***italics bold***).
6. The total town water supplied (column (12)) comprises the sum of the potable water supply (column (10)) and the non-potable water supply (column (11)), less the recycled water (column(13)).
7. The above analysis shows that the total 2003/04 total town water supplied for non-metropolitan NSW was 325,000 ML (column (12)), of which 302,000 ML (column (10)) was for potable water supply. The total non-potable water supply was 28,000 ML (column (11)) which included 4,400 ML recycled water (column(13)). Column (11) includes 4,230 ML of recycled water sold to mining companies by Orange and Muswellbrook councils. The non-potable supply was mainly for outdoor uses in dual water supplies (approximately 12,400ML), but also includes supplies to industry and other outdoor uses. The average uses as a percentage of the total potable water supply were:
   - Residential - 57 % (column (1))
   - Commercial and Industrial - 19 % (columns (2) and (3))
   - Water Losses - 13 % (column (7))
8. Recycled water used for non-potable town water supply is shown in column (13). This is a component of the non-potable town water supply (column (11)) which also includes raw water.
9. The recycled water used for agriculture uses is shown in column (14). The total volume of recycled water for non-metropolitan NSW water utilities was 31,100 ML (column (13) + column (14)), which is 20% of the total volume of sewage collected.

Table 8A - 2003/04 Water Losses & Non-Revenue Water

	WATER UTILITY	WATER LOSSES (ML)[3]								REVENUE & NON-REVENUE WATER (ML)							
		Apparent Losses				Real Losses[4] (Leakage)		Water Losses[5]		Revenue Water[1] (Potable)			Non-Revenue Water[2] (Potable)			Revenue + Non-Revenue Water (Potable)[6]	
		Unbilled Unmetered (1)	Unaruthorised Consumption (2)	Under-registration of meters (3)	Total Apparent Losses (1)+(2)+(3) (4)	Reported (5)	Adopted (see Table 8) (6)	Reported (4) +(5) (7)	Adopted (see Table 8) (8)	Billed Metered (9)	Billed Unmetered (10)	Total Reported (11)	Unbilled Metered (12)	Total Reported (12) + (7) (13)	Total Adopted (12) + (8) (14)	Total Reported (11) + (13) (15)	Total Adopted (11) + (14) (16)
1	Albury						629	734	1,049	9,062		9,062	376	1,110	1,425	10,172	10,487
2	Armidale Dumaresq	50		52	102	60	171	162	285	2,563	6	2,569		162	285	2,731	2,854
3	Ballina (Reticulator)						247		697						697		
4	Balranald (Dual Supply)	4			4		14	4	24						24		
5	Barraba						9		16	141		141			16	141	157
6	Bathurst Regional																
7	Bega Valley (Unfiltered)				300		238	300	397	3,569		3,569		300	397	3,869	3,966
8	Bellingen (Unfiltered)			5	70	287	287	357	357	1,115		1,115		357	357	1,472	1,472
9	Berrigan (Dual Supply)	201					70	201	201	918		918	45	246	246	1,164	1,164
10	Bingara	16		4	20	22	22	42	42	196		196	125	167	167	363	363
11	Bland	No WS															
12	Blayney	No WS															
13	Bogan						55		92						92		
14	Bombala	35			35	2	21	37	37	212	99	311		37	37	348	348
15	Boorowa																
16	Bourke (Dual Supply)						41		68						68		
17	Brewarrina						25		41						41		
18	Australian Inland						329	781	781	4,704		4,704		781	781	5,485	5,485
19	Byron (Reticulator)	479			479		179	479	479	2,502		2,502		479	479	2,981	2,981
20	Cabonne						15	37	37	206		206		37	37	243	243
21	Carrathool (Groundwater)						49	52	82	501		501		52	82	501	584
22	Central Darling (Dual Supply)						10		17						17		
23	Central Tablelands	50	50		100	45	129	145	145	2,011		2,011		145	145	2,156	2,156
24	Cobar	5			5	2	88	7	146						146		
24-A	Cobar WB (Bulk Supplier)						255	207	207						207		
25	Coffs Harbour (Unfiltered)	36			36	459	459	495	603	5,424		5,424		495	603	5,919	6,027
26	Coolah	2	1	1	4	4	23	8	39	331		331		8	39	339	370
27	Coolamon	No WS															
28	Cooma-Monaro						102		170						170		
29	Coonabarabran						57		95	950		950			95	950	1,045
30	Coonamble (Groundwater)	5	3	2	10	169	169	180	181	1,252	4	1,256	133	308	314	1,564	1,570
31	Cootamundra (Reticulator)	112			112	68	68	180	180	823		823		180	180	1,004	1,004
32	Copmanhurst (Unfiltered)	No WS															
33	Corowa						206	100	344						344		
34	Cowra	366			366		153	366	366	2,190		2,190		366	366	2,556	2,556
35	Crookwell						19		31						31		
36	Culcairn (Groundwater)	20		2	22	8	14	30	30						30		
37	Deniliquin						157	16	261	2,347	001	2,348	1	17	262	2,365	2,610
38	Dubbo		82	40	122	580	593	702	989	7,440		7,440	1,450	2,152	2,439	9,592	9,879
39	Dungog (Reticulator)	54	27	24	105	110	110	215	215	507		507		215	215	722	722
40	Eurobodalla (Unfiltered)	35	55	10	100	29	322	129	537	4,732	104	4,836		129	537	4,965	5,373
41	Fish River WS (Unfiltered, Bulk Supplier)					***524***	524			11,655		11,655					
42	Forbes	20	5	5	30	82	139	112	232	1,822		1,822	263	375	495	2,197	2,317
43	Gilgandra (Groundwater)	10	5	5	20	10	62	30	103	902	020	922	5	35	108	957	1,030
44	Glen Innes	60			60	65	65	125	125	579		579		125	125	704	704
45	Gloucester						34	76	76	482		482		76	76	558	558
46	Goldenfields (Bulk Supplier)	10			10	766	766	776	776	8,619		8,619		776	776	9,395	9,395
47	Goldenfields (Reticulator)					339	339	566	566						566		
48	Goldenfields (Combined)	10			10	766	766	776	776	8,619		8,619		776	776	9,395	9,395
49	Gosford	215		225	440	1,494	1,494	1,934	1,934	15,021		15,021		1,934	1,934	16,955	16,955
50	Goulburn						156	559	559	2,119		2,119			559	2,678	2,678
51	Grafton (Unfiltered)						143		239	2,152		2,152			239		2,391

Table 8A - 2003/04 Water Losses & Non-Revenue Water

	WATER UTILITY	WATER LOSSES (ML)[3]								REVENUE & NON-REVENUE WATER (ML)							
		Apparent Losses				Real Losses[4] (Leakage)		Water Losses[5]		Revenue Water[1] (Potable)			Non-Revenue Water[2] (Potable)			Revenue + Non-Revenue Water (Potable)[6]	
		Unbilled Unmetered (1)	Unaruthorised Consumption (2)	Under-registration of meters (3)	Total Apparent Losses (1)+(2)+(3) (4)	Reported (5)	Adopted (see Table 8) (6)	Reported (4) +(5) (7)	Adopted (see Table 8) (8)	Billed Metered (9)	Billed Unmetered (10)	Total Reported (11)	Unbilled Metered (12)	Total Reported (12) + (7) (13)	Total Adopted (12) + (8) (14)	Total Reported (11) + (13) (15)	Total Adopted (11) + (14) (16)
52	Griffith						496	626	826	7,437		7,437		626	826	8,063	8,263
53	Gundagai	10	20	20	50	40	40	90	90	488		488		90	90	578	578
54	Gunnedah (Groundwater)	9	5	6	20	18	160	38	266	1,687	710	2,397		2,396	266	2,435	2,663
55	Gunning (Groundwater)						6		10						10		
56	Guyra	36			36		19	36	36	275		275		36	36	311	311
57	Harden (Reticulator)						53		88						88		
58	Hastings (Unfiltered)	84	15	175	274	390	390	664	664	5,840		5,840		664	664	6,503	6,503
58-A	Hawkesbury	No WS															
59	Hay (Dual Supply)						23		39						39		
60	Holbrook	No WS															
61	Hume	30	17	10	57	93	93	150	150	300		300		28	150	328	450
62	Hunter Water				1,862	8,174											
63	Inverell				106	106	125	212	212	1,863		1,863		212	212	2,075	2,075
64	Jerilderie (Dual Supply)						7		12						12		
65	Junee	No WS															
66	Kempsey (Groundwater)				404	522	522	926	926	2,996		2,996	120	1,046	1,046	4,042	4,042
67	Kyogle	46			46		22	46	46	315		315		46	46	361	361
68	Lachlan	39	4	21	64	49	105	113	175	1,577		1,577		113	175	1,690	1,752
69	Leeton	15	15	150	180	390	390	570	570	2,677		2,677		570	570	3,247	3,247
70	Lismore (Reticulator)				158	220	220	378	378	3,284		3,284		378	378	3,662	3,662
71	Lithgow	1			1		129	1	214						214		
72	Lockhart	No WS															
73	North Coast Water (Unfiltered)	60	1	400	460	530	530	990	990	3,556	4	3,560		990	990	4,550	4,550
74	Maclean	No WS															
75	Manilla						32	5	54	482		482		5	54	487	536
76	Merriwa	22	3	5	30	52	52	82	82	236		236	15	96	96	332	332
77	MidCoast (Manning - Unfiltered)																
78	MidCoast (Great Lakes - Unfiltered)																
79	MidCoast (Combined - Unfiltered)				925	1,500	1,500	2,425	2,425	8,871		8,871		2,425	2,425	11,296	11,296
80	Moree Plains (Groundwater)						141	279	279			2,071		279	279	2,350	2,350
81	Mudgee (Unfiltered)						124		207						207		
82	Mulwaree						7		12						12		
83	Murray (Dual Supply)				59	***4***	47	63	79	712		712		63	79	774	791
84	Murrumbidgee (Groundwater)						42	129	129	565	3	568		129	129	697	697
85	Murrurundi						10		17						17		
86	Muswellbrook	107	190		297	20	157	317	317	2,199		2,199	108	425	425	2,624	2,624
87	Nambucca (Groundwater)						109		190	1,623		1,623		190	190	1,813	1,813
88	Narrabri (Groundwater)						224	399	399	641		641		399	399	1,025	1,040
89	Narrandera (Groundwater)	180	10	2	192	89	95	281	281	1,024	100	1,124	176	457	457	1,581	1,581
90	Narromine (Groundwater)	237			237		86	237	237	1,200		1,200		237	237	1,540	1,437
91	Nundle (Groundwater)						6	65	10	83		083		10	10	93	93
92	Oberon (Reticulator)	10					46		76						76		
93	Orange						296		493						493		
94	Parkes						403		672						672		
95	Parry (Groundwater)						33	79	79	477		477		79	79	556	556
96	Pristine Waters (Unfiltered)						37	117	117	431		431		117	117	548	548
97	Queanbeyan (Reticulator)	140	1	23	163	242	242	405	405	3,402		3,402	0	405	405	3,807	3,807
98	Quirindi (Groundwater)					74	35		74						74		
99	Richmond Valley						176		293						293		
100	Riverina (Groundwater)						967	1,887	1,887	14,220		14,220		1,887	1,887	16,110	16,107
101	Rous (Bulk Supplier)	13			13	5	5	18	18	11,441		11,441		18	18	11,459	11,459
102	Rylstone						33		55						55		

Table 8A - 2003/04 Water Losses & Non-Revenue Water

	WATER UTILITY	WATER LOSSES (ML)[3]								REVENUE & NON-REVENUE WATER (ML)							
		Apparent Losses				Real Losses[4] (Leakage)		Water Losses[5]		Revenue Water[1] (Potable)			Non-Revenue Water[2] (Potable)			Revenue + Non-Revenue Water (Potable)[6]	
		Unbilled Unmetered	Unaruthorised Consumption	Under-registration of meters	Total Apparent Losses (1)+(2)+(3)	Reported	Adopted (see Table 8)	Reported (4) +(5)	Adopted (see Table 8)	Billed Metered	Billed Unmetered	Total Reported	Unbilled Metered	Total Reported (12) + (7)	Total Adopted (12) + (8)	Total Reported (11) + (13)	Total Adopted (11) + (14)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
103	Scone (Unfiltered)						104	779	779	960		960		779	779		1,739
104	Severn (Unfiltered)				2	2	2	2	3	26		26		2	3	27	29
105	Shoalhaven					69	939	69	1,565	14,082		14,082		69	1,565	14,151	15,647
106	Singleton						168	515	515	2,284		2,284	0	515	515	2,799	2,799
107	Snowy River (Unfiltered)						132		221						221		
108	Sydney Water				11,255	50,647											
109	Tallaganda (Unfiltered)																
110	Tamworth						507	1,235	1,235	7,213		7,213		1,235	1,235	8,448	8,448
111	Temora	No WS															
112	Tenterfield						34		57						57		
113	Tumbarumba	10	15		25	***15***	26	40	43						43		
114	Tumut						141		236	1,989		1,989			236	1,989	2,224
115	Tweed	78	926	157	1,161	548	572	1,709	1,709	7,828		7,828		1,709	1,709	9,537	9,537
116	Uralla	10	1	1	12	29	29	41	41	261	12	273	1	42	42	315	315
116-A	Urana	No WS															
117	Wagga Wagga	No WS															
118	Wakool						53		88			103			88	103	191
119	Walcha						14	43	43	182		182		43	43	225	225
120	Walgett (Dual Supply non-potable)						20		34						34		
121	Warren (Dual Supply)						22	167	167	205		205		167	167	372	372
122	Weddin	No WS															
123	Wellington	6			6	178	178	184	184	987		987	14	198	198	1,185	1,185
124	Wentworth (Dual Supply)					6	34		56	512	2,193	3,405			56		3,461
125	Wingecarribee				364	310	310	674	674	4,500		4,500		674	674	5,174	5,174
126	Wyong				438	***685***	875	1,123	1,123	13,467		13,467		787	1,123	14,254	14,590
127	Yallaroi (Groundwater)	63	37	4	104	33	33	137	137	170	088	258	116	253	253	511	511
128	Yarrowlumla (Groundwater)						23		39						39		
129	Yass Valley	80	5	15	100	100	100	200	200	590		590	60	260	260	850	850
130	Young (Reticulator)						95		263	1,328		1,328		263	263	1,591	1,591
	TOTALS	**3,146**	**1,492**	**1,363**	**21,660**	**71,031**	**22,470**	**29,463**	**38,614**	**242,150**	**3,345**	**248,369**	**3,008**	**33,251**	**41,622**	**260,909**	**273,250**

Notes:

1. Revenue water (potable) comprises billed consumption (metered and unmetered).
2. Non-revenue water (potable) comprises unbilled metered consumption plus water losses.
3. Water losses comprise apparent losses (firefighting, mains flushing, unauthorised consumption, under-registration of customer meters) plus real losses (leakage).
4. Real losses in column (6) above are the same as those shown in column (9) in Table 8.
5. Water losses shown in column (8) above are the same as those shown in column (8) in Table 8.
6. Total adopted revenue plus non-revenue water (potable) in column (16) above are generally the same as those shown in column (10) in Table 8 except for a number of mostly small LWUs where revenue water has not been reported or has been misreported.

Table 8B - 2003/04 Water Consumptions from Source Catchments in Non-metropolitan NSW

SOURCE CATCHMENT	WATER CONSUMPTION - Town Water Supply (ML)									WATER SUPPLIED - Town Water (ML)			RECYCLED WATER		CONSUMPTION (ML)	
	Residential	Commercial	Industrial	Rural	Institutional	Bulk Sales	Public Parks & Gardens	Water Losses	Leakage	Potable Town Water Supplied =(1)+(2)+(3)+(4)+(5)+(6)+(7)+(8)	Non-Potable Town Water Supplied (for outdoor uses or industry)	Total Town Water Supplied (Potable + Non-potable) =(10)+(11)-(13)	For Non-Potable Town Water Supply	For Agricultural use	Surface Water	Ground Water
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Bega	1,890	990	100	204	239	13	135	397	238	3,970		3,970		575	1,800	2,330
Bellinger	1,810	546	240	122	13	1	7	547	396	3,280		3,280		119	205	3,080
Castlereagh/Macquarie	20,080	4,160	1,660	507	978	357	1,670	2,960	2,290	33,500	4,700	34,900	3,370	2,640	24,500	9,040
Clarence	8,010	1,740	938	631	259	76	228	1,990	1,190	14,000	270	14,100	120	603	9,100	
Clyde	3,100	1,100			244	104	288	537	322	5,370	220	5,590		219	4,970	
Darling	4,650	621	1,370	151	254	65	83	1,280	757	8,360	5,730	14,100		1,580	7,830	
Gwydir	3,060	1,120	439	39	168	75	276	747	368	5,930	50	5,980		449	3,310	2,680
Hastings	4,400	969	22	62	370		13	664	390	6,500		6,500		249	6,500	
Hawkesbury (Country Towns only)	18,430	2,920	855	241	828		271	3,390	2,100	26,900		26,900		1,970	23,200	
Hunter (Country Towns only)	4,270	1,330	56	105	474	14	205	1,930	602	8,380	870	8,390	867	2,130	6,940	825
Lachlan	7,070	1,080	4,130	814	261	678	621	1,670	969	16,400	440	16,800		498	10,700	4,590
Macleay	3,660	683	281	396	579	24	59	1,210	693	6,890	320	7,210		1,300	3,250	4,040
Manning	7,510	1,070	583		84	25	80	2,500	1,530	11,900		11,900		39	11,200	700
Moonie/Macintyre	833	135	6	1	34	99	7	185	101	1,300	120	1,420		118	1,260	
Murray (Dual Supply)	12,810	2,290	1,550	260	473	1,150	392	2,260	1,300	21,200	3,200	24,400		6,530	23,100	237
Murrumbidgee	26,440	5,980	2,960	4,050	1,630	4,280	2,360	7,630	4,810	54,100	6,060	60,100	47	1,040	18,400	21,690
Namoi	9,120	3,260	881	237	445	218	858	2,210	1,040	17,400	1,480	18,800		1,490	10,600	7,780
Shoalhaven	9,360	1,800	2,190	571	147	4	161	1,560	939	15,800	3,270	19,100		2,050	17,300	
Snowy	2,070	208	8		9		1	258	153	2,560		2,560		35	2,250	
Tuggerah Lake	10,050	3,420						1,120	875	14,600		14,600			15,100	
Tweed/Richmond	14,090	3,670	330	533	552	87	314	3,570	1,400	23,200	900	24,100	0	1,480	13,200	14
No Water Supply														1,420		
	172,700	**39,100**	**18,600**	**8,900**	**8,000**	**7,300**	**8,000**	**39,000**	**22,000**	**302,000**	**28,000**	**325,000**	**4,400**	**28,700**	**215,000**	**57,000**

Note:
For water utilities which did not report their residential consumption together with commercial and/or industrial consumption, the percentages tabulated in ***Table 8*** were applied to their total potable water consumption (column 10) and the consumptions for each catchment to obtain the above values.

Table 9 - Water Supply - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION										ASSETS								WORKFORCE								
		Total No of Assessments				Connected Properties - Total		Residential Assessments	Connected Residential Properties	Population		Mains	Water Treatment Works	Other Limited Treatment	Dams	Pumping Stations	Properties Served per km of Main	Pumping Stations per 100km of Main	Capital Investment	Work Force	% Female	% Undergoing Training	Outsourcing			Injuries	Days Lost		
						(Ratio of Connected Properties to Assessments)	Connected Properties (18) x (19)	(Ratio of Residential Assessments to Total Assessments)	(Ratio of Residential Connections to Residential Assessments)	(Permanent)	(Peak) (% of Permanent)	(km)	(No.)	(No.)	(No.)	(No.)	(20) / (25)	(28) / [(25) x 100]	($'M)	No./1000 properties	(%)	(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)	No.	Total (%)	Due to Injuries No.	(%)
		(18)				(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(26a)	(27)	(28)	(29)	(30)	(31)	(32)	33)	(34)	(35)	(36)	(37)	(38)	(39	(40)	
		2000/01	2001/02	2002/03	2003/04	2003/04	20033/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04
1	Albury	18,100	18,100	18,150	20,400	1.03	21,100	0.93	1.03	43,000	120	487	1			16	43	3	3.7	0.6	11	37	81	53	9	4	3	8	0
2	Armidale Dumaresq	7,800	7,750	7,750	8,010	0.98	7,900	0.92	0.98	23,000	100	287	1		3	11	27	4	1.0	1.8	5	42				1	3	2	0
3	Ballina (Reticulator)	12,600	12,600	11,410	13,180	0.93	12,300	0.91	0.93	33,300		326	1		1	4	38	1	1.0	1.5	11	89				0	1	1	0
4	Balranald (Dual Supply)	770	800	800	850	0.95	800	0.86	0.95	2,000	110	29	1	1		3	28	10	0.3	1.2	0	100	0	0	0	2	12	18	8
5	Barraba	850	850	800	740	0.86	630	0.87	0.85	1,400	100	48	1		1	3	13	6		2.4	17	67	0	0	0	1	1	90	26
6	Bathurst	11,900	11,900	12,070	12,070	1.06	12,800	0.90	1.07	30,800		369	1		2	7	35	2	1.9	1.0	0	100							
7	Bega Valley (Unfiltered)	12,600	12,600	12,600	13,180	0.97	12,800	0.92	0.98	25,600	180	557		6	3	17	23	3	0.7	3.3	14	100				4	3	20	0
8	Bellingen (Unfiltered)	3,900	3,990	4,060	4,060	0.95	3,900	0.93	0.95	9,200	100	155	1	1	1	6	25	4	0.5	0.8	0	100	0	0	1	0	1	0	0
9	Berrigan (Dual Supply)	3,000	2,900	2,960	2,980	0.98	2,900	0.87	0.98	6,200	120	195	4		3	7	15	4	0.3	2.1	8	33				1	2	30	2
10	Bingara	730	730	730	730	1.00	730	0.91	1.00	1,200	110	34		1		1	21	3		3.4	10	100	10	10	10	0	14	0	0
11	Bland				**No WS**																								
12	Blayney				**No WS**																								
13	Bogan	1,200	1,190	1,190	1,190	1.01	1,200	0.86	1.01	2,500		48	1			1	25	2	0.0	3.3	25	25							
14	Bombala	920	910	910	900	0.95	860	0.84	0.95	1,900	110	37	1	1		3	23	8	0.0	2.1	11	100	0	0	0	0	3	0	0
15	Boorowa	580	620	610	620	0.94	580	0.94	0.94	1,200	100	100	1			1	6	1		2.6	0	100	0	0	0	0		0	
16	Bourke (Dual Supply)	1,700	1,700	1,700	1,700	0.75	1,300	0.81	0.75	3,500		87	1	1	o	2	15	2	0.0	3.1	0	100	0	0	0	0	1	0	0
17	Brewarrina	620	620	620	550	0.86	470	0.88	0.94	1,700	110	34	1	1	1	3	14	9	0.3	3.6	0	100				0	3	0	0
18	Australian Inland	10,200	10,200	10,260	10,130	1.01	10,200	0.91	1.01	22,000	100	362	1	1	2	7	28	2		5.2	6	100				1	2	11	0
19	Byron (Reticulator)	10,000	10,100	10,360	10,500	0.96	10,100	0.91	0.96	28,000	180	217	1	1		6	46	3	0.4	1.0	10	40	0	0	0	1	1	7	0
20	Cabonne	1,100	1,090	1,100	1,090	0.95	1,000	0.88	0.95	2,200	100	88	1	3	3	3	12	3	0.0	2.9	17	100	0	0	0	0	3	0	0
21	Carrathool (Groundwater)	1,100	1,130	1,130	1,130	0.95	1,100	0.89	0.95	2,000	110	474		5	3	11	2	2	0.1	2.6	0	100	0	0	0	0	0	0	0
22	Central Darling (Dual Supply)	730	730	730	730	1.00	730	0.87	1.00	1,400	100	62	1	2		4	12	6		3.4		100					4		
23	Central Tablelands	5,000	5,050	5,040	5,190	0.95	4,900	0.76	0.95	11,000	110	437	2	1	2	27	11	6	2.7	3.9	16		0	0	0	0	3	0	0
24	Cobar (Dual Supply)	2,000	2,020	2,020	2,020	0.95	1,900	0.89	0.95	5,300	100	107	1	4	2	6	18	6	0.1	5.4	10	42	0	0	0	0	1	0	0
24-A	Cobar WB (Bulk Supplier)		2,020	2,020	2,020	0.95	1,900	0.89	0.95	4,800		350		1		3	5	1				100							
25	Coffs Harbour (Unfiltered)	21,800	21,700	22,400	23,400	0.94	22,000	0.93	0.94	57,300	120	553	1	2	2	7	40	1	8.1	1.4	3	100					2		
26	Coolah	1,100	1,160	1,160	1,160	0.97	1,100	0.88	0.97	2,900	100	62	3			3	18	5	0.2	3.6	0	25				0	3	0	0
27	Coolamon				**No WS**																								
28	Cooma-Monaro	3,600	3,660	3,660	3,650	0.95	3,600	0.89	0.95	7,600	120	129	1	2		3	28	2	0.2	1.8	0	95				1	3	89	6
29	Coonabarabran	1,900	1,910	1,900	1,900	1.00	1,900	0.87	1.00	4,100	120	58	3	2	1	3	33	5		3.2	0	100	0	0	5	0	0	0	0
30	Coonamble (Groundwater)	1,600	1,560	1,520	1,520	0.87	1,300	0.87	0.87	4,400	100	63		3		7	21	11		4.5	2	100	0	0	0	3	2	10	1
31	Cootamundra (Reticulator)	2,700	2,730	2,700	2,820	0.99	2,800	0.88	0.99	7,000	110	90					31		0.1	0.7	0	100				0	2	0	0
32	Copmanhurst (Unfiltered)	150	160		**No WS**																								
33	Corowa	3,500	3,520	3,570	3,680	0.93	3,400	0.89	0.92	6,900	160	95	1	2		2	36	2	0.3	0.6	0	100	0	0	10	0	0	0	0
34	Cowra	5,100	5,190	5,190	5,250	0.95	5,000	0.94	0.95	12,600	110	240	1			4	21	2	0.4	0.4	0	100	0	0	0	0	2	0	0
35	Crookwell	1,100	1,160	1,100	1,100	1.01	1,100	0.86	1.00	2,300	110	35	1			1	32	3	0.5	1.8	0	100	0	0	50	0	0	0	0
36	Culcairn (Groundwater)	540	540	540	540	1.02	550	0.91	1.02	1,200	120	17		1		1	33	6		0.4	0	100	0	0	10	0	0	0	0
37	Deniliquin	3,600	3,400	3,400	3,200	0.96	3,100	0.87	0.95	8,000	150	154	1			1	20	1	0.1	1.3	0	100	0	0	0	0	1	0	0
38	Dubbo	12,700	13,100	13,070	13,440	1.11	14,900	0.89	1.10	33,600	110	423	1			7	35	2	1.7	1.0	4	100				0	2	0	0
39	Dungog (Reticulator)	2,000	2,040	2,020	2,050	0.95	1,900	0.91	0.95	7,700	100	96	1			3	20	3	0.1	2.3	0		0	0	10	0	5	0	0
40	Eurobodalla (Unfiltered)	18,000	18,200	18,480	18,890	0.94	17,800	0.95	0.94	33,000	320	745		1	1	12	24	2	4.5	1.5	4	96				4	4		
41	Fish River WS (Unfiltered, Bulk Supp	23,000	23,000	23,000	23,000	0.94	21,600	0.87	0.94	62,000		243	1		2	2	89	1	0.8	0.6	8	100				0	1	0	0
42	Forbes	3,500	3,450	3,450	3,450	1.01	3,500	0.89	1.01	7,600	100	123	1			3	28	2	0.2	1.4	26	84	0	5	5	0	2	0	0
43	Gilgandra (Groundwater)	1,300	1,350	1,350	1,350	0.98	1,300	0.90	0.98	2,900	110	48	1			5	28	10	0.0	1.5	0	50	0	0	20	0	0	0	0

Table 9 - Water Supply - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION										ASSETS								WORKFORCE									
		Total No of Assessments				Connected Properties - Total		Residential Assessments	Connected Residential Properties	Population		Mains	Water Treatment Works	Other Limited Treatment	Dams	Pumping Stations	Properties Served per km of Main	Pumping Stations per 100km of Main	Capital Investment	Work Force	% Female	% Undergoing Training	Outsourcing			Injuries	Days Lost		
						(Ratio of Connected Properties to Assessments)	Connected Properties (18) x (19)	(Ratio of Residential Assessments to Total Assessments)	(Ratio of Residential Connections to Residential Assessments)	(Permanent)	(Peak) (% of Permanent)	(km)	(No.)	(No.)	(No.)	(No.)	(20) / (25)	(28) / [(25) x 100]	($'M)	No./1000 properties	(%)	(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)	No.	Total (%)	Due to Injuries No.	(%)
		(18)				(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(26a)	(27)	(28)	(29)	(30)	(31)	(32)	33)	(34)	(35)	(36)	(37)	(38)	(39	(40)	
		2000/01	2001/02	2002/03	2003/04	2003/04	20033/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04
44	Glen Innes	2,900	2,930	2,800	2,800	0.90	2,500	0.88	0.91	6,000	120	85	1			1	30	1	0.1	1.8		100					5		
45	Gloucester	1,700	1,510	1,470	1,470	0.95	1,400	0.87	0.95	2,800	120	51	1	1		8	27	16	0.1	2.4	0	67	0	0	0	0	0	0	0
46	Goldenfields (Bulk Supplier)	18,800	18,800	18,800	18,800	0.94	17,700	0.79	0.94	37,600	100	311	1	1		14	57	5		2.9	13	75				7	4	93	1
47	Goldenfields (Reticulator)	10,900	10,900	10,900	10,200	0.92	9,400	0.70	0.92	20,800		1,860		3		22	5	1				100							
48	Goldenfields (Combined)	18,800	18,800	18,800	18,800	0.94	17,700	0.79	0.94	37,600	100	2,130	1	4		36	8	2		2.9	13	75	10	5	5	7	4	93	1
49	Gosford	62,800	63,400	64,900	67,300	0.98	65,700	0.96	0.98	147,500		939	1		2	20	70	2	2.5	1.2	12	100	0	0	15	15	1	66	0
50	Goulburn	8,800	8,850	8,880	8,970	1.03	9,200	0.90	1.03	20,900		225	1		2	3	41	1	1.1	1.8	6	100	7	0	0	1	2	1	0
51	Grafton (Unfiltered)	6,800	7,120	7,420	7,420	1.15	8,500	0.87	1.12	17,500	100	188		1		2	45	1		1.2	0	100	0	0	0	2	10	123	5
52	Griffith	9,000	9,000	9,000	9,000	0.85	7,700	0.88	0.84	24,000		435	2			2	18	0	2.5	2.9	9	100				3	3	15	0
53	Gundagai	940	940	960	960	1.02	980	0.85	1.02	2,400	170	35	1			1	28	3	0.1	2.2	0	100	0	10	10	0	2	0	0
54	Gunnedah (Groundwater)	4,100	4,140	4,140	4,140	1.02	4,200	0.90	1.02	10,200	100	186		4		17	23	9	0.5	1.7	0	100	10	5	5	1	3	60	4
55	Gunning (Groundwater)	350	350	350	350	0.95	330	0.89	0.95	720	100	17		2		3	20	18		0.8	0	100	0	0	50	0	17	0	0
56	Guyra	1,200	1,180	1,180	1,190	0.95	1,100	0.90	0.95	2,900	110	60	1		2	1	19	2		2.2	40	100	2	2	2	0	1	0	0
57	Harden (Reticulator)	1,500	1,520	1,520	1,530	0.96	1,500	0.74	0.95	3,900		168				3	9	2	0.0	1.4	0	50				0	3	0	0
58	Hastings (Unfiltered)	25,400	25,100	25,100	27,700	0.95	26,400	0.94	0.95	64,000	130	736		1	1	17	36	2	8.8	1.5	5	80	25	10	10	0	1	0	0
58-A	Hawkesbury				**No WS**																								
59	Hay (Dual Supply)	1,300	1,290	1,290	1,290	0.98	1,300	0.87	0.98	2,900		86		1		3	15	3	1.4	1.6		100	0	0	30				
60	Holbrook				**No WS**																								
61	Hume	2,000	2,100	2,170	2,300	0.95	2,200	0.89	0.95	6,000	120	194	1			4	11	2	0.2	1.7	0					0	0	0	0
62	Hunter Water	199,000		205,000	209,000	1.00	209,000	0.90	1.00	496,000		4,430	5			81	47	2	31.9			100							
63	Inverell	4,900	4,950	5,030	5,120	0.98	5,000	0.91	0.99	11,700	110	228	2	1		6	22	3	0.8	1.8	7	56	0	0	10	0	3	0	0
64	Jerilderie (Dual Supply)	460	460	460	460	0.93	430	0.92	0.93	970		40		1		1	11	3		2.3	0	100							
65	Junee				**No WS**																								
66	Kempsey (Groundwater)	10,500	10,900	10,870	11,230	1.04	11,700	0.85	1.03	24,300	120	579		9	2	18	20	3	1.6	1.7	10	100	5	0	5	5	3	2	0
67	Kyogle	1,700	1,720	1,710	1,850	0.95	1,800	0.89	0.95	3,700	110	65	1	3	1	4	27	6	0.4	3.1		100	5	5	0	0	2	0	0
68	Lachlan	2,600	2,630	2,630	2,630	1.02	2,700	0.79	1.02	5,600	100	155	3		4	7	17	5	4.0	1.7	0	100	0	0	0	0	0	0	0
69	Leeton	3,600	3,630	3,740	3,740	0.92	3,400	0.89	0.92	8,200	110	130	3		1	5	26	4	0.7	1.5	10	80	0	0	0	2	2	2	0
70	Lismore (Reticulator)	12,400	12,470	12,560	12,740	1.05	13,400	0.90	1.06	33,900		329		2	1	5	41	2	1.3	1.0	5	80	0	5	5	5	6	90	3
71	Lithgow	7,100	7,170	7,130	7,380	0.98	7,200	0.93	0.98	20,000	100	460	1		1	6	16	1		1.4	0		0	0	0	0	0	0	0
72	Lockhart				**No WS**																								
73	North Coast Water (Unfiltered)	10,800	10,900	10,930	11,040	0.95	10,500	0.85	0.95	27,100	170	1,070		1		8	10	1	22.4	1.7	28	100				1	2	33	1
74	Maclean				**No WS**																								
75	Manilla	1,100	1,100	1,100	1,130	0.93	1,100	0.91	0.93	2,300		37	1			1	29	3	0.1	1.4	0	100	0	0	0	0	10	0	0
76	Merriwa	600	600	610	610	0.94	570	0.89	0.94	1,100	130	26	2			4	22	16	0.1	2.3	0		0	0	0	0	8	0	0
77	MidCoast (Manning - Unfiltered)	20,700	21,400	21,400		0.96	0	0.97	0.96			765					0					100							
78	MidCoast (Great Lakes - Unfiltered)	13,000	13,300	13,300		0.96	0	0.97	0.96			345					0					100							
79	MidCoast (Combined - Unfiltered)	33,600	34,400	35,200	35,400	0.96	34,000	0.97	0.96	85,000	110	1,110	2	2	2	27	31	2	7.8	1.1	19	100				1	3	2	0
80	Moree Plains (Groundwater)	5,000	5,220	4,850	5,160	0.97	5,000	0.88	0.96	12,500	100	155	2	3		3	32	2		2.6	15	100	0	5	5	0	3	0	0
81	Mudgee (Unfiltered)	4,700	4,730	4,730	4,900	1.03	5,000	0.91	1.04	10,400	190	255		2	1	6	20	2	7.9	2.0	10	100	5	0	0	1	3	2	0
82	Mulwaree	500	500	510	510	0.95	490	0.87	0.95	970		32	1	1		2	15	6	0.0	2.1	0		0	0	0	0	0	0	0
83	Murray (Dual Supply)	2,000	2,000	2,030	2,030	0.95	1,900	0.93	0.95	5,200	220	119	2			3	16	3		2.0	4	79	0	0	0	0	1	0	0
84	Murrumbidgee (Groundwater)	760	730	750	750	1.03	770	0.88	1.03	1,700		29		2		3	27	10	0.0	1.9	0					0	0	0	0
85	Murrurundi	630	630	630	640	0.95	610	0.92	0.95	1,200	120	34	1	1	2	2	18	6	0.1	2.5	0	100	0	0	0	0	1	0	0
86	Muswellbrook	4,900	4,850	4,950	5,190	0.94	4,900	0.89	0.96	14,600		128	1	3		2	38	2	0.7	2.2	18	100	0	0	0	9	7	25	1
87	Nambucca (Groundwater)	6,000	6,380	6,080	6,240	0.95	5,900	0.91	0.95	14,100	150	181	1			2	33	1	0.6	1.0	8	17	20	15	20	0	1		

Table 9 - Water Supply - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION										ASSETS								WORKFORCE								
		Total No of Assessments				Connected Properties - Total		Residential Assessments	Connected Residential Properties	Population		Mains	Water Treatment Works	Other Limited Treatment	Dams	Pumping Stations	Properties Served per km of Main	Pumping Stations per 100km of Main	Capital Investment	Work Force	% Female	% Undergoing Training	Outsourcing			Injuries	Days Lost		
						(Ratio of Connected Properties to Assessments)	Connected Properties (18) x (19)	(Ratio of Residential Assessments to Total Assessments)	(Ratio of Residential Connections to Residential Assessments)	(Permanent)	(Peak) (% of Permanent)	(km)	(No.)	(No.)	(No.)	(No.)	(20) / (25)	(28) / [(25) x 100]	($'M)	No./1000 properties	(%)	(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)	No.	Total (%)	Due to Injuries No.	(%)
		(18)				(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(26a)	(27)	(28)	(29)	(30)	(31)	(32)	33)	(34)	(35)	(36)	(37)	(38)	(39	(40)	
		2000/01	2001/02	2002/03	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04
88	Narrabri (Groundwater)	4,200	4,200	4,220	4,250	0.98	4,200	0.91	0.98	10,800	100	134		6		2	31	1		0.8	20	100	0	2	4	1	1	2	0
89	Narrandera (Groundwater)	2,200	2,170	2,200	2,200	0.92	2,000	0.84	0.92	4,800	110	66		1		3	31	5	0.1	1.7	7	100	5	10	5	1	3	8	1
90	Narromine (Groundwater)	2,100	2,080	2,110	2,110	0.95	2,000	0.88	0.95	4,800		55		1	2	3	36	5		2.0	25	100	0	0	35				
91	Nundle (Groundwater)	250	230	220	230	0.95	220	0.87	0.95	350	140	18	1			1	12	6		4.6	0		0	0	0	0	0	0	0
92	Oberon (Reticulator)	1,200	1,220	1,220	1,240	1.01	1,300	0.87	1.02	3,000	130	33	1			1	38	3	0.1	1.6	0	100				0	2	0	0
93	Orange	14,400	13,900	13,890	14,640	1.00	14,600	0.93	1.00	32,800		429	2	1	2	2	34	0	1.4	1.1	6	100	10	5	5		4	5	0
94	Parkes	5,800	5,810	5,860	5,860	0.95	5,600	0.91	0.95	11,600	100	425	1		2	8	13	2	0.9	2.3	0	100	0	0	0	0	0	0	0
95	Parry (Groundwater)	1,900	1,910	1,910	1,920	0.95	1,800	0.93	0.95	5,100	100	97	1	3		3	19	3	0.2	0.8	0	100	0	0	0	0	3	0	0
96	Pristine Waters (Unfiltered)	2,000	1,950	1,950	1,950	0.95	1,900	0.89	0.95	3,800	190	112		6		4	17	4	0.1	1.0	0	100				0	0	0	0
97	Queanbeyan (Reticulator)	13,500	13,800	13,930	15,390	1.03	15,800	0.93	1.04	33,200		256				4	62	2	0.7	0.5	25		0	10	50	0	0	0	0
98	Quirindi (Groundwater)	1,600	1,360	1,360	1,380	0.98	1,400	0.85	0.98	3,000	100	52		1		4	26	8		1.5	0	100				0	3	0	0
99	Richmond Valley	6,600	6,600	6,720	6,720	0.97	6,500	0.93	0.97	17,300	100	177	1			5	37	3	0.6	1.8	4	35					1		
100	Riverina (Groundwater)	25,800	26,100	26,500	28,300	0.96	27,200	0.92	0.96	58,500	100	1,370	5	10		70	20	5	3.6	2.7	5	60	0	0	0	2	3	6	0
101	Rous (Bulk Supplier)	33,500	33,900	34,500	37,300	0.96	35,800	0.94	0.96	105,000		375	2		2	11	95	3	3.7	1.4	22	70					4		
102	Rylstone	1,300	1,290	1,290	1,310	0.99	1,300	0.93	0.99	2,200		57	1		1	5	23	9		1.5	0	100	0	0	0	0	14	0	0
103	Scone (Unfiltered)	2,700	2,720	2,580	2,610	1.01	2,600	0.91	1.02	7,000	120	117		1		5	23	4	0.3	1.3	0	100	0	0	0				
104	Severn (Unfiltered)	190	200	200	200	0.95	190	0.88	0.95	400	100	9	1			1	22	12		1.1	25	100	0	0	0	0	0	0	0
105	Shoalhaven	44,100	44,700	46,100	46,800	0.92	42,900	0.94	0.92	85,000	340	1,490	4		4	29	29	2	8.5	0.9	9	92	3	3	15	5	4	109	1
106	Singleton	5,400	5,520	5,630	5,800	0.95	5,500	0.88	0.95	14,300	100	145	1			5	38	3	1.4	1.5		36				0	6	0	0
107	Snowy River (Unfiltered)	2,400	2,400	2,370	2,370	1.43	3,400	0.89	1.43	3,700	480	122		6		9	28	7	0.9	2.2	13						1		
108	Sydney Water	1,629,000		1,638,000	1,661,000	1.00	1,661,000	0.93	1.00	4,189,000		20,550	10			152	81	1	98.7	2.1	23	100							
109	Tallaganda (Unfiltered)	710	710	610	650	0.88	570	0.82	0.86	1,200		19		1			30					100	0	0	0				
110	Tamworth	15,200	14,700	14,740	15,040	1.01	15,200	0.90	1.01	37,000	190	463	1		1	8	33	2	2.5	1.7	0	100	5	5	5		3	162	3
111	Temora				**No WS**																								
112	Tenterfield	1,800	1,800	1,800	2,030	0.95	1,900	0.94	0.95	3,600		64	1	1	1	2	30	3	0.5	1.6	0	100	0	0	3	1	3	25	4
113	Tumbarumba	1,100	1,030	1,070	1,070	0.95	1,000	0.93	0.95	2,000	170	60		2		3	17	5	0.4	4.9	20	60				0	6	0	0
114	Tumut	4,000	4,160	4,200	4,200	0.95	4,000	0.90	0.95	11,700	100	149	4	1	1	10	27	7	0.2	0.8	0	100	0	0	0	1	1	7	1
115	Tweed	27,500	28,100	28,600	29,500	0.91	26,800	0.95	0.93	68,700	130	616	3		1	20	44	3	9.7	1.4	1	100	5	10	6	2	4	94	1
116	Uralla	1,300	1,240	1,270	1,290	1.01	1,300	0.87	1.02	2,300	100	36	1		1	1	36	3	0.0	0.8	0	100	0	25	20	0	0	0	0
116-A	Urana				**No WS**																								
117	Wagga Wagga				**No WS**																								
118	Wakool	1,800	1,350	1,350	1,350	0.95	1,300	0.92	0.95	2,700		119	2	6		8	11	7	1.2	3.0		51	0	0	0	0	0	0	0
119	Walcha	820	830	820	820	1.01	830	0.86	1.01	1,600	110	50	1			3	17	6		2.4	0	50	0	0	0	0	2	0	0
120	Walgett (Dual Supply)	1,700	1,700	1,660	1,660	0.85	1,400	0.94	0.85	6,600		104	2	4		6	14	6		2.1	0	100				1	1	56	8
121	Warren (Dual Supply)	1,000	1,030	1,030	1,070	0.91	970	0.89	0.90	2,400	100	53		1		2	18	4	0.0	2.5	10	100	0	0	0	0	4	0	0
122	Weddin				**No WS**																								
123	Wellington	2,800	2,830	2,830	2,930	0.98	2,900	0.89	0.98	5,700	110	75	1			1	38	1	0.9	1.7	5	100	0	0	0	0	2	0	0
124	Wentworth (Dual Supply)	1,600	1,600	1,620	1,690	0.95	1,600	0.89	0.95	3,900	100	164	3			8	10	5	0.3	5.0	6	100	0	5	5	0	8	0	0
125	Wingecarribee	16,800	16,700	17,520	18,420	0.95	17,500	0.93	0.96	41,800	100	622	3		2	11	28	2	1.6	1.5	6	42		5	16	5	5	29	0
126	Wyong	55,300	56,000	57,000	57,900	0.97	56,400	0.95	0.97	145,000	170	1,040	1		1	17	54	2	5.2	1.3		100	0	0	0				
127	Yallaroi (Groundwater)	730	720	730	720	1.00	720	0.86	1.00	1,700	110	42		3			17		2.6	3.5	20	40	10	10	10	1	10	4	1
128	Yarrowlumla (Groundwater)	930	950	970	970	0.98	950	0.93	0.97	2,100		32	1	1	1	3	30	9		1.1	0	100	0	0	5	0	4	0	0
129	Yass Valley	2,500	2,630	2,650	2,940	0.98	2,900	0.82	0.98	6,800	110	107	1		1	1	27	1	0.5	1.9	9	55	0	0	10	0	3	0	0
130	Young (Reticulator)	3,400	3,570	3,640	3,760	1.04	3,900	0.87	1.04	7,400	130	111				2	35	2	0.1	1.0	15	100	10	70	30	4	13	12	1

Table 9 - Water Supply - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION										ASSETS								WORKFORCE									
		Total No of Assessments				Connected Properties - Total		Residential Assessments	Connected Residential Properties	Population		Mains	Water Treatment Works	Other Limited Treatment	Dams	Pumping Stations	Properties Served per km of Main	Pumping Stations per 100km of Main	Capital Investment	Work Force	% Female	% Undergoing Training	Outsourcing			Injuries	Days Lost		
						(Ratio of Connected Properties to Assessments)	Connected Properties (18) x (19)	(Ratio of Residential Assessments to Total Assessments)	(Ratio of Residential Connections to Residential Assessments)	(Permanent)	(Peak) (% of Permanent)	(km)	(No.)	(No.)	(No.)	(No.)	(20) / (25)	(28) / [(25) x 100]	($'M)	No./1000 properties	(%)	(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)	No.	Total (%)	Due to Injuries No.	(%)
		(18)				(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(26a)	(27)	(28)	(29)	(30)	(31)	(32)	33)	(34)	(35)	(36)	(37)	(38)	(39	(40)	
		2000/01	2001/02	2002/03	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04
131	Albury City	18,420	18,436	18,497	20,768		21,452			43,960		518	1			17	41	3	3.8	0.7	11					4	3	8	0
132	Clarence Valley	19,600	19,970	20,300	20,410		20,900			48,400		1,370		8		14	15	1		1.4	14	100				3	5	156	3
133	Coffs Harbour	21,800	21,700	22,400	23,400		22,000			57,300		553	1	2	2	7	40	1	8.1	1.4	3	100					2		
134	Corowa	4,360	4,423	4,503	4,669		4,346			9,480		178	1	2		4	24	2	0.4	0.8	0					0	0	0	0
135	Glen Innes Severn	3,090	3,130	3,000	3,000		2,690			6,400		93	2			2	29	2		1.7		100					4		
136	Goulburn Mulwaree	9,300	9,350	9,390	9,480		9,690			21,870		257	2	1	2	5	38	2	1.1	1.9	6		7	0	0	1	2	1	0
137	Greater Hume	1,360	1,401	1,430	1,483		1,452			3,660		96	1	1		3	15	3		1.2	0					0	0	0	0
138	Gwydir	1,460	1,450	1,460	1,450		1,450			2,900		77		4			19			3.4	15	70	10	10	10	1	12	4	0
139	Liverpool Plains	2,467	2,231	2,231	2,257		2,224			5,229		97		4		6	23	6		1.3	0	100				0	3	0	0
140	Mid Western Regional	6,000	6,020	6,020	6,210		6,300			12,600		312	1	2	2	11	20	4		1.9	8	100	4	0	0	1	5	2	0
141	Palerang	1,640	1,660	1,580	1,620		1,520			3,300		51	1	2	1		30					100	0	0	3				
142	Tamworth Regional	18,559	18,045	18,025	18,311		18,248			44,161		625	5	1	2	15	29	2		1.7	1		4	4	4		3	252	3
143	Upper Hunter	3,804	3,824	3,694	3,732		3,658			9,060		170	1	2		11	22	6	0.4	1.6	0		0	0	0				
144	Upper Lachlan	1,450	1,510	1,450	1,450		1,430			3,020		52	2	1	2	4	28	8		1.6	0	100	0	0	50	0	4	0	0
145	Warrumbungle	3,000	3,070	3,060	3,060		3,000			7,000		120	2	1	2	6	25	5		3.3	0	72				0	1	0	0

Table 10 - Water Supply - Asset Management, Water Resource Management

	WATER UTILITY	ASSET MANAGEMENT																WATER RESOURCE MANAGEMENT																					
		Leakage (from Table 8)			**Main Breaks**			**Interruptions to Supply**			**Rehabilitations**		**Mains Renewals**		**Mains Maintenance Cost**			**Total Town Water Supplied**				**Non-potable Town Water Supply** (from Table 8)			**Recycled Water** (from Table 8)						**Peak Week to Average Consumption**		**Management Policy in Place?**		**Average Annual Residential Consumption⁺ (Potable)**			
		(kL per 100km of Main)			(per 100km of Main)			(per '000 properties)			Mains (km per 100 km)	Service Connections (%)	($'000 per 100km of Main)	(% of CRC)	($'000 per 100km of Main)			Potable + Non-potable (ML)				For outdoor uses or industry (ML)			For Non-potable Town Water Supply (ML)			For Agricultural Use (ML)			(%)		Drought (Y/N)	Demand (Y/N)	From Table 8 (1) ÷ [(18) x (21) x (22)] (kL/property)			
		(41)																(49)				(50)			(51)			(52)			(53)		(54)	(55)	(56)			
		2001/02	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*2003/04*		*2003/04*			*2000/01*	*2001/02*	*2002/03*	*2003/04*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*02/03*	*03/04*	*02/03*	*03/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*
1	Albury	138	140	129	8	22	13				0.8	0.2	164	0.35	90			10,100	11,000	11,200	10,500							4,150	5,010	4,910	155	195	✓	✓	288	364	373	307
2	Armidale Dumaresq		75	60			11				0.2		11	0.03	139			3,390	3,270	3,320	2,910			60					1,300	1,040	135	191	✓	✓	286	280	283	239
3	Ballina (Reticulator)	156	119	76	4	8	6	13	5	4	0.6	10.2	27	0.19	52			4,210	4,210	3,450	4,430	130		320	134	174		1	304	47			✓	✓	260	270	202	234
4	Balranald (Dual Supply)	38	43	48	58	24	3	8	809	782		1.6			130			1,580	1,540	1,550	1,440	1,390	1,360	1,200							107	×	✓	171	170	290	301
5	Barraba	32	20	20	0	0	0								35			240	270	170	***170***	10	10	10						133	123	119	×	×	240	281	169	191
6	Bathurst Regional	105	113		2	3	4	10			2.4	0.4			201			7,490	6,480	6,260	6,810	130	260									×	×	383	302	296	333
7	Bega Valley (Unfiltered)	37	48	43	12	6	5				0.6	0.2			44			3,820	3,590	4,460	3,970		180						576	575		184	✓	×	203	184	174	158
8	Bellingen (Unfiltered)	60	54	186		27	21				0.2	0.4			43			1,480	1,600	1,440	1,470										121		×	×	243	268	237	225
9	Berrigan (Dual Supply)	37	41	36	14	9	8	5	3	3	0.6	0.3						2,030	2,370	2,580	2,260	1,030	1,180	1,100					80	85		179	✓	✓	230	291	356	329
10	Bingara	84	87	64		36	12		5	74	0.1	3.7						430	450	480	360										187	255	×	×	372	269	283	259
11	Bland			**No WS**																								178	283	65								
12	Blayney			**No WS**																								93	183	207								
13	Bogan	129	118	116		23	36				0.5	0.9			95			870	1,020	940	920											176	✓	×	495	590	537	510
14	Bombala	56	53	56	38	35	11	188	123	15	0.0	0.2	43	0.26	43			380	340	320	350							30	36	35	178		✓	✓	302	270	262	392
15	Boorowa	15	617		7	3		31	18						7			190	260	210	***210***												×	×	242	275	268	217
16	Bourke (Dual Supply)	54	55	47	35		155	0	1						85			900	2,240	1,880	2,930	190	1,460	2,250					82	240			✓	✓	396	446	458	378
17	Brewarrina	49	68	72	40	40	59	75	75	43					223			1,160	650	1,210	***1,210***	800	240	800				160	160	160			×	×	413	472	470	519
18	Australian Inland	106	82	91	10	7	15				0.4	0.1			535			7,450	8,150	5,620	6,050	490	1,780	560				626	813	897	106	170	✓	×	356	324	286	323
19	Byron (Reticulator)	120	87	82	48	37	13	3	3	2	1.4	3.5			86			3,070	3,630	2,640	3,560			580				149	280	580	102		×	×	198	282	184	200
20	Cabonne	20	20	17	5	3	6		0			1.0			42			500	460	460	360	160	160	120					126	43		116	×	×	209	193	190	151
21	Carrathool (Groundwater)	9	11	10	12	15	29	37	353	0	0.1	2.1			17			1,310	2,040	2,020	1,700	720	1,230	880					1			261	×	×	386	502	543	489
22	Central Darling (Dual Supply)	10	26	17	95	5	8					4.5			182			780	780	700	***700***	610	610	530									✓	×	157	159	159	153
23	Central Tablelands	67	56	30	22	10	7		2	6	2.1	1.0	604	3.77	62			2,540	2,900	2,650	2,160										221	271	×	✓	237	244	278	254
24	Cobar	83	100	82	11	8	3	1	4	2					164			1,140	1,710	1,910	1,660	20	200	200				270	312	98			×	×	382	522	614	485
24-A	Cobar WB (Bulk Supplier)	69	69	73				0	0										4,000	4,000	4,250										109	145	×	×				
25	Coffs Harbour (Unfiltered)	62	60	83	12	10	11	30	29	32					137			5,730	5,660	5,490	6,030			120			120	129	405	373	116	130	×	×	190	189	183	189
26	Coolah	52	52	38	61	9	24	4	9	9	0.8	1.8			227			420	390	390	***390***							100	180	220	195	268	×	×	193	301	301	281
27	Coolamon			**No WS**																								46	51									
28	Cooma-Monaro	59	80	79	18	27	47				1.5	0.7	182	1.90	145			1,410	1,470	1,730	1,700								42			174	×	×	266	281	329	314
29	Coonabarabran	115	83	98	19	19	3	8	5	11					83			960	1,110	800	950							53		75	106	115	×	×	339	398	287	328
30	Coonamble (Groundwater)	155	173	269	277	73	67	42	79	41		0.5			83			1,310	1,630	1,820	1,810		150		154				154	154	106		×	×	793	980	1,091	1,128
31	Cootamundra (Reticulator)	88	80	76	36	293	222		0	0					57			1,010	1,230	1,120	1,000								318	230			×	×	266	281	303	273
32	Copmanhurst (Unfiltered)			**No WS**																																		
33	Corowa	224	244	217	34	27	40				0.8	0.4			67			3,220	3,550	3,860	3,440							556	439	461			✓	✓	670	746	819	660
34	Cowra	42	83	64		4	6	7			0.2	0.2			105			2,320	2,440	3,300	2,560										155	192	×	×	240	244	370	273
35	Crookwell	117	87	54	32	40	26	13	14	0			206	1.04	257			330	400	360	310										211	211	×	×	207	195	265	188
36	Culcairn (Groundwater)	70	86	86	18	0	0	181	0	0		4.7			48			190	190	240	***240***							17	105	105	151	210	×	×	228	234	265	263
37	Deniliquin	107	118	102	34	18	31				1.0	1.6	72	0.74				3,730	3,430	3,800	3,330	1,070	730	720				1,000	918	629		175	✓	×	534	581	642	696
38	Dubbo	129	279	140	3	7	5	29	58	79	0.6	0.0	167	0.68	171			7,250	9,030	10,200	9,890							1,740	2,150	1,620	151	192	✓	✓	275	368	503	459
39	Dungog (Reticulator)	50	53	114		48	30		47	1,011	0.5	0.8			27			770	780	830	720							171	260	219	117	176	×	✓	203	209	222	186
40	Eurobodalla (Unfiltered)	41	39	43	48	10	1	40	0	20	0.5	3.8			51			5,740	4,950	4,760	5,590			220				508	1,460	219	145	141	✓	✓	214	218	206	183
41	Fish River WS (Unfiltered, Bulk Sup	388	210	216	1	4	6		0	0	0.9	0.1						13,900	15,700	15,500	11,700			6,730									×	✓				
42	Forbes	285	177	113	25	33	29	52	42	205		0.2			211			3,460	4,030	3,750	2,410	180	660	90					10	10	136	196	×	×	608	581	597	410
43	Gilgandra (Groundwater)	111	142	128	63	23	31	15	38	38	1.0	0.5			108			740	890	1,140	1,030								290	313	112	152	×	×	409	395	488	426

Table 10 - Water Supply - Asset Management, Water Resource Management

	WATER UTILITY	ASSET MANAGEMENT													WATER RESOURCE MANAGEMENT																	
		Leakage (from Table 8)			**Main Breaks**			**Interruptions to Supply**			**Rehabilitations**		**Mains Renewals**		**Mains Maintenance Cost**	**Total Town Water Supplied**				**Non-potable Town Water Supply** (from Table 8)			**Recycled Water** (from Table 8)						**Peak Week to Average Consumption**		**Management Policy in Place?**		**Average Annual Residential Consumption⁺ (Potable)**			
		(kL per 100km of Main)			(per 100km of Main)			(per '000 properties)			Mains (km per 100 km)	Service Connections (%)	($'000 per 100km of Main)	(% of CRC)	($'000 per 100km of Main)	Potable + Non-potable (ML)				For outdoor uses or industry (ML)			For Non-potable Town Water Supply (ML)			For Agricultural Use (ML)			(%)		Drought (Y/N)	Demand (Y/N)	From Table 8 (1) ÷ [(18) x (21) x (22)] (kL/property)			
		(41)			(42)			(43)			(44)	(45)	(46)	(47)	(48)	(49)				(50)			(51)			(52)			(53)		(54)	(55)	(56)			
		2001/02	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*2003/04*		*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*02/03*	*03/04*	*02/03*	*03/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*
44	Glen Innes	64	63	77	5	8	4	11	20	7	0.0	2.0			1	760	800	830	700										108	143	×	×	195	200	203	198
45	Gloucester	81	64	66		0	12		0	4			82	0.44	196	750	660	520	560										164	166	×	✓	314	341	295	265
46	Goldenfields (Bulk Supplier)	93		246	45	109		20			2.3	0.5			168	7,800	8,780	10,700	9,560	130	120	170							132	194	×	×				
47	Goldenfields (Reticulator)	24	23	18	19	7	24	182	171	243		0.9			34	5,420	5,790	6,860	5,660										149		×	×	274	294	304	335
48	Goldenfields (Combined)																																		
49	Gosford	117	117	159	24	32	36	123	220	278	0.1	0.4			218	18,200	18,300	18,300	16,900									152		136	×	✓	225	226	214	193
50	Goulburn	125	90	69	12	14	29		4	7					212	4,170	4,710	3,360	2,590							1,430	1,870	1,770	144		×	×	302	360	251	150
51	Grafton (Unfiltered)	74	83	76	17	28	31				0.5					2,360	3,130	2,540	2,390							13	120	125	111		×	×	185	215	170	192
52	Griffith	125	123	114	22	26	16	12	26	39	0.9	0.7			152	9,820	9,480	9,200	9,010	390	530	750					375	210	136	179		✓ ×	825	791	774	596
53	Gundagai	147	95	114	6	15	14	21	20	20	0.6	0.8			83	590	580	540	600								105	105	199	173	×	×	392	344	244	311
54	Gunnedah (Groundwater)	105	114	86	18	16	6	4	4	5	0.8	0.4	280	2.15		2,900	3,110	3,390	2,660							603	603	502	141	300	×	✓	474	488	565	357
55	Gunning (Groundwater)	42	109	34	6	6	0	0	12	0		0.6			94	120	120	100	96												×	×	238	239	192	186
56	Guyra	29	26	31	5		17	52		31	0.8	0.6			75	320	290	260	310										197	142		✓	270	241	175	175
57	Harden (Reticulator)	48	48	31	18	17	13	28	27	27			21	0.29	83	940	850	820	1,060	190	190	230	186	186	47	140	185	138			×	×	514	470	556	466
58	Hastings (Unfiltered)	94	62	53	5	3	5	18	12	13	0.9	1.1	85	0.27	51	6,600	6,690	6,190	6,500									249	111	145		✓	204	207	192	178
58-A	Hawkesbury			**No WS**																							240	240							
59	Hay (Dual Supply)	26	28	27			17					0.8			73	2,210	2,170	2,370	1,510	1,840	1,810	1,130										✓	197	198	212	200
60	Holbrook			**No WS**																								23							
61	Hume	47		48	24	39	18	25	268	11	0.5	1.6			32	1,070	1,150	1,270	1,050									97	143	156	×	×	370	387	603	307
62	Hunter Water		115				45		259							81,200	78,700	77,600	77,000										138			✓	214	209	222	212
63	Inverell	51	56	55	10	10	10	6	5	5	0.4	0.2	92	0.45	76	1,680	1,970	2,140	2,080										131	134	×	×	171	227	257	238
64	Jerilderie (Dual Supply)	16	16	18	43	33	23	398	30	0		18.7			165	350	330	360	270	240	220	150				3	40	40			×	×	161	163	163	171
65	Junee			**No WS**																						108	194	154							
66	Kempsey (Groundwater)	43	42	90	10	19	9		32		0.2		136	0.80	85	5,490	4,020	3,970	4,300	50		260	51				269	256		133	×	×	395	217	197	197
67	Kyogle	41	35	33	21	28	6	32	23	10	2.4	1.6			185	650	530	480	460	110	80	100				50	33	71	160	142		✓	243	240	176	187
68	Lachlan	44	63	68	5	4	5	4	3	6	0.8	0.7			94	1,260	1,110	1,590	1,980			230				92	123	165	161	200		✓ ×	352	308	479	548
69	Leeton	252	264	300	12	12	13	2	47	49	0.8	0.9	287	1.31	291	2,580	2,770	3,200	3,250							20			160	209	×	×	504	497	568	578
70	Lismore (Reticulator)	77	57	67	74	27	17		75	84	1.2	1.0	335	2.56	180	4,110	4,080	3,010	3,660							591	418	298				✓	207	225	155	186
71	Lithgow	28	28	28	5	3	4	43	43	15	0.3	0.3			89	2,350	2,110	2,110	2,140												×	×	217	227	227	214
72	Lockhart			**No WS**																							1	3							
73	North Coast Water (Unfiltered)	51	37	50	3	3	5	34	30	55	1.9	0.6			30	3,820	5,180	3,910	4,600			50							111	165		✓	203	280	192	231
74	Maclean			**No WS**																						78	113	117							
75	Manilla	94	87	87	42	49		20	16		2.4	0.4	98	0.71	168	550	570	540	***540***								230	230			×	×	425	433	400	379
76	Merriwa	87	105	201	19	19	19	23	10	12	0.8	1.0	283	1.70	318	290	370	450	330									20	249		×	×	338	342	408	299
77	MidCoast (Manning - Unfiltered)																														×	×				
78	MidCoast (Great Lakes - Unfiltered)																														×	×				
79	MidCoast (Combined - Unfiltered)	66	155	135	26	19	13				0.5				293	11,000	11,900	11,100	11,300							28	30	39	118	155		✓	234	245	226	219
80	Moree Plains (Groundwater)	79	154	91	60	9	42	63		284	1.3	2.0			1	4,020	2,740	3,980	2,350	340			176	305		305	325	404			×	×	716	535	478	261
81	Mudgee (Unfiltered)	56	55	49	8	12	10	103	103	99	0.2	0.8	144	0.75	165	2,130	2,400	2,350	2,070	50	50	10	50	50	10	300	87	80	217	202		✓	301	313	313	281
82	Mulwaree	32	27	23	13	16		211	205			0.4	76	0.42	351	140	170	140	120								10	28			×	×	196	234	163	98
83	Murray (Dual Supply)	50	53	40	25	26	13	106	185	370	0.1				96	1,720	1,760	1,880	1,550	880	900	760				200	25	200		179	×	×	258	262	267	237
84	Murrumbidgee (Groundwater)	175	175	145		42	17	3	3						24	870	840	840	690									10			×	×	695	733	707	581
85	Murrurundi	48	38	30	21	14	24	32	8	36	1.2	1.2	165	2.25	162	200	230	160	170										197	196	×	×	213	255	172	176
86	Muswellbrook	110	114	123	47	19	23	6	67	29	0.5	0.5			238	2,330	2,360	2,430	2,630	800	640	870	800	640	867	410	1,080	241	160	195	×	×	350	357	345	343
87	Nambucca (Groundwater)	71	71	60	3	3	6	7	6	17	0.3				82	1,800	1,900	1,740	1,810									119		123		✓	250	249	238	186

Table 10 - Water Supply - Asset Management, Water Resource Management

	WATER UTILITY	ASSET MANAGEMENT													WATER RESOURCE MANAGEMENT																	
		Leakage (from Table 8)			**Main Breaks**			**Interruptions to Supply**			**Rehabilitations**		**Mains Renewals**		**Mains Maintenance Cost**	**Total Town Water Supplied**				**Non-potable Town Water Supply** (from Table 8)			**Recycled Water** (from Table 8)						**Peak Week to Average Consumption**		**Management Policy in Place?**		**Average Annual Residential Consumption⁺ (Potable)**			
		(kL per 100km of Main)			(per 100km of Main)			(per '000 properties)			Mains (km per 100 km)	Service Connections (%)	($'000 per 100km of Main)	(% of CRC)	($'000 per 100km of Main)	Potable + Non-potable (ML)				For outdoor uses or industry (ML)			For Non-potable Town Water Supply (ML)			For Agricultural Use (ML)			(%)		Drought (Y/N)	Demand (Y/N)	From Table 8 (1) ÷ [(18) x (21) x (22)] (kL/property)			
		(41)			(42)			(43)			(44)	(45)	(46)	(47)	(48)	(49)				(50)			(51)			(52)			(53)		(54)	(55)	(56)			
		2001/02	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*2003/04*		*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*02/03*	*03/04*	*02/03*	*03/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*
88	Narrabri (Groundwater)	198	199	167	80	178	115	6	0		1.2	2.1			114	3,730	4,420	4,430	3,740												×	×	622	650	734	561
89	Narrandera (Groundwater)	366	305	145	8	12	6	50	99	74	0.2	1.8			110	1,790	1,600	1,770	1,630			50							159	217	✓	×	577	576	608	556
90	Narromine (Groundwater)	145	176	157		4	4					3.6			289	860	1,340	1,760	1,540			100					1				×	×	428	454	574	663
91	Nundle (Groundwater)	38	27	31	22	11	0	19	14						44	130	110	80	93										224		×	×	450	465	321	331
92	Oberon (Reticulator)	159	237	138	41					9	1.8	1.4	344	1.94	202	800	830	890	760											128	×	×	191	202	253	202
93	Orange	107	94	69	9	33	10				0.1	0.6			151	7,800	7,510	6,600	4,930	2,650	3,080	3,360	2,650	3,080	3,360	3,080	3,030	18	139	162	×	✓	498	487	303	206
94	Parkes	100	98	95	14	16	15				0.2	2.0			40	6,160	6,990	6,850	6,720							175	255	280	112		✓	✓	305	388	415	378
95	Parry (Groundwater)	52	47	34	7	8	9	33	4			0.7			93	1,020	840	750	560							60	50	157	198	179	×	×	349	286	278	159
96	Pristine Waters (Unfiltered)	81	89	33	2	7	0		0	0					80	600	600	650	620								94	34			×	×	233	263	243	235
97	Queanbeyan (Reticulator)	126	198	94	8	8	2	0	0	0	0.3	0.3			399	4,860	5,240	5,700	4,030								36	66	285	207	✓	✓	218	231	251	155
98	Quirindi (Groundwater)	79	87	67	16	12	8	31	36	26	0.4	1.5			60	630	690	750	580										174	252	×	×	272	343	373	299
99	Richmond Valley	119	100	99	23	11	11	66	0		2.0	2.2	219	1.19	135	3,220	3,500	2,940	2,930							45	45	196			×	×	312	346	286	275
100	Riverina (Groundwater)	68	85	71	14	15	12	108	110	90	0.2	0.3	84	0.59	39	14,500	15,400	17,800	16,100										147	188	✓	✓	351	353	402	354
101	Rous (Bulk Supplier)	80	80	1	22	13	13	5	5	4	2.0				72	13,500	12,900	9,950	11,500										102	140	✓	✓				
102	Rylstone	198	47	58	2	4	5			0					30	400	480	450	550								10			182	×	×	200	219	226	261
103	Scone (Unfiltered)	193	193	90	84	42	93			613	0.7	1.5			88	1,490	1,820	2,100	1,740							810	590	533			×	×	244	284	341	291
104	Severn (Unfiltered)	23	21	20	0	0	0	0	0	0						30	30	30	29							13	13	13			×	×	119	120	133	133
105	Shoalhaven	78	87	63	11	17	20				0.0	0.0	73	0.45	50	17,600	17,600	19,000	18,900	3,610	3,730	3,270				1,530	105	2,050	127	148	×	✓	167	197	212	230
106	Singleton	129	136	116	9	17	8	382	374	363	0.1	7.5	80	0.29	99	2,740	2,970	3,130	2,800							1,180	1,140	1,120	139	162	×	×	343	374	390	301
107	Snowy River (Unfiltered)	33	55	109		2	2		0						26	810	670	1,110	2,210												×	×	224	130	313	591
108	Sydney Water		186				38		275							625,000	624,000	634,700	563,000												✓	✓	255	251	255	224
109	Tallaganda (Unfiltered)	66	57		42	95		13	74						232	170	210	180												×	×	195	237	235	223
110	Tamworth	129	175	109		9	10				0.1	2.6	223	0.68	4	9,290	9,960	9,500	8,620			170							127	159	✓	✓	292	342	376	305
111	Temora			**No WS**																							100	360							
112	Tenterfield	79	50	53	9	24	17	47	41	49	0.4	1.4				570	640	530	690			120					114	105	166	152	✓	✓	233	231	190	204
113	Tumbarumba	70	49	44	5	4	3	51	0	2	3.4	23.9	52	0.35	17	590	660	460	430												×	✓	232	454	324	261
114	Tumut	89	100	95		6	5		0	0	0.5				65	1,880	2,110	2,520	4,010	50	50	1,650	17	54		25	69	9		149	×	×	264	304	325	306
115	Tweed	241	86	93	5	4	5	27	60	46	0.5	5.6			67	9,680	10,300	8,740	9,540								245	354		103	✓	✓	230	243	213	219
116	Uralla	65	83	80	24	17	11	29	47	32	0.3	0.5			97	390	390	330	320										227	205	×	×	211	210	187	192
116-A	Urana			**No WS**																															
117	Wagga Wagga			**No WS**																						1,500	1,370	359							
118	Wakool	41	42	44	28	6	15	0	0	0		2.0	1	0.01	77	1,200	1,560	1,410	1,350	580	700	470									✓	×	358	496	528	532
119	Walcha	27	31	27	6	6	4	24	12	12					66	260	220	220	230										167	172	×	×	198	177	160	162
120	Walgett (Dual Supply)	91	106	20											95	1,380	2,310	2,310	1,640	1,050	1,300	1,300				467	529	467			×	×	188	450	448	146
121	Warren (Dual Supply)	33	40	42	114		85								197	580	820	920	800	290	530	430								118	✓	✓	203	203	247	199
122	Weddin			**No WS**																						30	44	37							
123	Wellington	280	200	237	45	16	28	93	65	139	1.3	1.4			463	1,030	1,100	1,360	1,190										188	220	✓	✓	267	288	438	298
124	Wentworth (Dual Supply)	27	21	21	8	22	9	12	12	14		2.2			104	3,080	2,520	3,080	2,760	1,790	1,800	2,190					341	340		406	×	×	386	416	248	224
125	Wingecarribee	49	60	50	17	16	17			80	0.5		152	0.90	49	4,690	5,100	6,040	5,170									16	135	153	×	×	203	235	241	214
126	Wyong	97	89	84	3	4	6	39	69	24	0.1	0.5			243	17,200	16,700	15,300	14,600										117	130	✓	✓	221	219	197	188
127	Yallaroi (Groundwater)	69	85	78	64	45	78	69	95	254	2.8	0.8			187	400	490	600	560			50						45		163	×	×	467	578	697	409
128	Yarrowlumla (Groundwater)	81	79	72	20	7	3	6	18	1						340	410	400	390												×	×	251	278	267	250
129	Yass Valley	58	46	93	6	15	15	2	3	10	1.0	0.9	9	0.03	121	930	1,030	810	850								244	168	174	153	✓	✓	240	259	201	204
130	Young (Reticulator)	90	95	86	14	17	14	24	21	58	1.4	0.3				1,490	1,600	1,690	1,590								220	101	148	197	×	×	268	278	290	264

Table 10 - Water Supply - Asset Management, Water Resource Management

	WATER UTILITY	ASSET MANAGEMENT														WATER RESOURCE MANAGEMENT																	
		Leakage (from Table 8)			**Main Breaks**			**Interruptions to Supply**			**Rehabilitations**		**Mains Renewals**		**Mains Maintenance Cost**	**Total Town Water Supplied**				**Non-potable Town Water Supply** (from Table 8)			**Recycled Water** (from Table 8)						**Peak Week to Average Consumption**		**Management Policy in Place?**		**Average Annual Residential Consumption+ (Potable)**			
		(kL per 100km of Main)			(per 100km of Main)			(per '000 properties)			Mains (km per 100 km)	Service Connections (%)	($'000 per 100km of Main)	(% of CRC)	($'000 per 100km of Main)	Potable + Non-potable (ML)				For outdoor uses or industry (ML)			For Non-potable Town Water Supply (ML)			For Agricultural Use (ML)			(%)		Drought (Y/N)	Demand (Y/N)	From Table 8 (1) ÷ [(18) x (21) x (22)] (kL/property)			
		(41)			(42)			(43)			(44)	(45)	(46)	(47)	(48)	(49)				(50)			(51)			(52)			(53)		(54)	(55)	(56)			
		2001/02	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*2003/04*		*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*01/02*	*02/03*	*03/04*	*02/03*	*03/04*	*02/03*	*03/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*
131	Albury City	130	127	122	9	23	13				0.7	0.2			85	10,271	11,184	11,403	10,668									4,926			✓	✓	290	364	378	307
132	Clarence Valley	56	48	52	5	6	8									6,780	8,910	7,100	7,610												✓	✓	198	252	188	216
133	Coffs Harbour	62	60	83	12	10	11		29	32					137	5,730	5,660	5,490	6,030												✓	✓	190	189	183	189
134	Corowa	178	180	173	31	30	34				0.7	0.7			58	3,680	4,045	4,406	3,892									503			✓	✓	604	667	772	583
135	Glen Innes Severn	61	59	72	5	7	3	11	18	7						790	830	860	729												×	×	189	195	198	193
136	Goulburn Mulwaree	114	82	64	12	14	29		14						229	4,310	4,880	3,500	2,710								1,880	1,798			×	×	297	354	246	147
137	Greater Hume	50	11	53	23	34	16	84	166	7		2.8			35	629	662	761	671									144			×	×	316	329	475	290
138	Gwydir	76	86	72		41	48		50	164	1.6	2.3				830	940	1,080	920												×	×	420	424	490	334
139	Liverpool Plains	66	67	51	13	11	10	32	24			1.2			81	1,068	1,064	1,075	832												×	✓	293	320	330	247
140	Mid Western Regional	82	54	50	7	10	9			79					141	2,530	2,880	2,800	2,620								97				✓	✓	281	295	296	277
141	Palerang	76	71		28	39		9	39							510	620	580	390												×	×	230	262	254	240
142	Tamworth Regional	110	142	92		11	10								26	10,832	11,422	10,748	9,765												✓	✓	300	340	361	294
143	Upper Hunter	155	157	97	65	34	71			442	0.8	1.4			133	1,940	2,374	2,678	2,206												×	×	255	290	330	277
144	Upper Lachlan	92	94	47	24	29	17	10	14	0					203	450	520	460	406												✓	✓	214	205	248	187
145	Warrumbungle	82	67	67	41	14	14	7	6	10					158	1,380	1,500	1,190	1,340							153		295			×	×	285	362	292	311

+ For the 10 LWUs with a dual water supply in 2003/04, note 11 on page 11 reports the approximate total annual residential consumption per property.

Table 11 - Water Supply - Financial, Efficiency

	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 6)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 6)											
		Total Turnover (excl. Capital Works Grants)				Residential Revenue	Residential Consumption	Current Replacement Cost (CRC) of System Assets			Debt to Equity			Cross Subsidies		Operating Result		Externalities (Fees to DEUS)	Operating Cost (OMA)				OMA + Depreciation				Management Cost			
		($'000)				(% annual rates & charges) 90% max in bold	(% of potable excluding unaccounted for water)	Written Down Cost ($M)	Current Replacement Cost ($M)	Current Replacement Cost per Assessmnt ($)	(%)			Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)	($/property)		($/property)	($/property)			($/property)				($/property)				($/property)			
		(57)				(58)	(59)	(60)	(61)	(62)	(63)			(64a)	(64b)	(65)		(66)	(67)				(68)				(68a)			
		2000/01	2001/02	2002/03	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2001/02	2002/03	2003/04	2003/04	2003/04	02/03	03/04	2003/04	2000/01	2001/02	2002/03	2003/04	2000/01	2001/02	2002/03	2003/04	2000/01	2001/02	2002/03	2003/04
1	Albury	6,040	6,330	7,100	9,520	78	64	143	225	11,000	1	1	0	127	6	8	43	4.1	197	210	243	201	283	298	364	365	99	113	121	94
2	Armidale Dumaresq	3,620	3,680	4,670	3,810	74	68	56	106	13,300	2	1	2		37	71	-52	0.1	339	367	353	333	522	558	547	513	162	171	171	144
3	Ballina (Reticulator)	4,460	4,800	3,980	5,370	77	75	33	47	6,700	0	0	0			-23	54	0.2	233	240	346	339	282	290	463	445	60	67	106	99
4	Balranald (Dual Supply)	420	400	420	450	84	75	6	9	10,300	3	6	16			124	81	12.2	306	336	242	282	461	488	398	439	41	70	41	67
5	Barraba	420	380	420	390	84	74	4	6	7,700	15	13	11			-45	13		270	266	330	337	422	418	491	513	82	85	120	139
6	Bathurst Regional	7,980	7,990	9,090	9,770	65	57	123	136	11,300	2	2	1			208	259	0.1	261	283	311	308	380	419	462	459	99	105	101	106
7	Bega Valley (Unfiltered)	5,630	5,780	6,030	6,110	80	53	60	109	8,300	0	0	0		4	52	27	1.4	254	263	282	291	397	417	438	447	149	154	162	157
8	Bellingen (Unfiltered)	1,710	1,990	2,040	2,290	81	72	19	33	8,100	0	0	0			152	171	0.5	152	187	186	238	327	362	360	413	46	73	84	140
9	Berrigan (Dual Supply)	1,590	1,630	2,130	1,960	85	75	14	25	8,500	8	6	5	78	47	194	99	5.4	298	307	309	340	466	481	480	511	98	105	102	105
10	Bingara	290	300	350	***350***	81	53		5	6,200	22	20				108		1.2	170	311	211		259	400	301		59	170	66	
11	Bland				**NO WS**																									
12	Blayney				**NO WS**																									
13	Bogan	640	810	880	910	90	63	6	16	13,200	3	3	2			-79	-35	0.1	428	506	518	473	633	712	724	684	185	218	191	202
14	Bombala	440	370	390	420	86	75	3	6	6,800	2	1	1			36	148	0.6	228	220	290	239	301	299	366	315	48	52	69	58
15	Boorowa	300	350	330	380	89	57	4	5	7,600	27	26	17			30	130	0.4	270	272	316	298	424	418	409	390	35	27	37	44
16	Bourke (Dual Supply)	770	830	790	760	86	63	3	12	7,300	13	15	14			-343	-268	0.6	471	549	598	517	776	854	904	823	73	78	118	94
17	Brewarrina	350	370	390	440	81	63		4	6,400	0	0	0	286		6	40	0.5	578	619	611	726	703	739	731	850	64	69	88	53
18	Australian Inland	9,900	9,720	12,500	11,400	48	64		60	5,900	5	8	0			152	-7		674	698	822	875	883	910	1014	1,089	176	344	221	251
19	Byron (Reticulator)	4,130	4,770	3,890	4,720	77	73	25	36	6,700	1	1	0			1	87	0.0	258	277	314	325	313	334	415	413	89	94	100	117
20	Cabonne	750	720	790	830	87	67	9	19	17,800	2	2	1			106	242	1.9	320	345	398	308	513	587	632	545	84	106	106	96
21	Carrathool (Groundwater)	800	840	940	930	***90***	63	8	12	10,800	4	3	3			143	148	6.0	540	606	516	532	710	772	673	660	186	227	129	86
22	Central Darling (Dual Supply)	500	500	460	570	***90***	63	7	14	19,100	0	0	0			-540	-390		495	479	816	655	853	839	1174	1,014	75	75	75	75
23	Central Tablelands	2,780	2,790	3,210	3,260	62	47	31	70	13,500	23	22	21			-10	-23	0.1	346	369	387	402	547	572	596	611	161	173	192	195
24	Cobar	1,260	1,330	1,360	1,440	80	63	13	21	10,300	0	0	0			-97	114	0.6	315	601	395	270	485	770	555	416	107	118	104	104
24-A	Cobar WB (Bulk Supplier)																													
25	Coffs Harbour (Unfiltered)	13,000	14,000	15,300	16,300	71	72	133	165	7,000	26	23	20			345	332		176	205	195	217	247	277	265	299	88	106	96	97
26	Coolah	480	480	500	530	***90***	75		7	5,700	1	0	0			-51	11		299	369	395	372	370	425	484	463	48	74	62	65
27	Coolamon				**NO WS**																									
28	Cooma-Monaro	1,860	1,910	2,110	2,120	84	63	6	12	3,400	2	0	0			191	163		256	256	308	326	342	339	412	421	84	85	98	92
29	Coonabarabran	1,050	1,110	1,120	1,130	***90***	63		27	14,400	0	0				-74	17		354	387	443	367	567	604	664	577	205	214	246	186
30	Coonamble (Groundwater)	610	610	640	650	***90***	75	3	8	5,000	0	0	0			158	231	0.1	111	138	204	145	205	237	302	243	20	20	20	***20***
31	Cootamundra (Reticulator)	1,260	1,350	1,410	1,340	86	75		3	1,200	0	0	0			53	19		227	263	360	247	253	289	524	345	44	44	46	45
32	Copmanhurst (Unfiltered)				**NO WS**																									
33	Corowa	1,510	1,420	1,770	1,530	59	65	19	32	8,700	1	0	2			149	60	12.4	193	223	261	261	286	315	352	353	75	76	76	100
34	Cowra	2,840	2,980	3,090	2,950	81	58		34	6,400	1	1	1			76	-39	10.1	409	335	363	423	577	501	499	560	100	135	168	260
35	Crookwell	640	640	730	800	82	63	6	7	6,300	23	21	19			131	159		246	245	314	356	358	345	426	471	30	37	57	58
36	Culcairn (Groundwater)	140	150	170	180	70	64	1	2	3,700	0	0	0			115	40	1.7	117	125	147	233	162	170	193	279	45	54	62	65
37	Deniliquin	1,760	1,830	2,210	2,190	***90***	75	6	15	4,700	3	2	2			225	221	11.4	248	268	282	304	378	407	429	461	116	101	104	123
38	Dubbo	6,700	7,370	8,690	8,750	80	68	62	104	7,800	0	0	0			78	92	5.6	264	286	376	348	409	429	522	495	76	77	120	113
39	Dungog (Reticulator)	900	960	1,090	***1,090***	76	65	5	10	4,800	4	3	3			88	69	0.5	131	138	187	353	188	193	255	410	57	41	76	89
40	Eurobodalla (Unfiltered)	7,340	7,790	10,100	10,600	86	64	96	142	7,500	5	3	2			167	151	0.0	247	246	271	300	367	369	395	426	113	115	137	153
41	Fish River WS (Unfiltered, Bulk Supp	6,960	6,570	6,910	5,780	***90***		72	157	6,800	9	9	9			91	17		108	109	99	114	219	209	193	216	65	42	33	38
42	Forbes	1,540	1,630	2,120	1,900	82	61	14	18	5,300	4	3	3			209	149	13.9	191	212	267	253	273	297	366	341	23	23	20	42
43	Gilgandra (Groundwater)	590	590	660	690	82	55	5	12	8,900	7	4	2	37		-68	114	2.9	184	219	247	226	362	488	521	358	28	46	68	74

Table 11 - Water Supply - Financial, Efficiency

	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 6)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 6)											
		Total Turnover (excl. Capital Works Grants)				Residential Revenue	Residential Consumption	Current Replacement Cost (CRC) of System Assets			Debt to Equity			Cross Subsidies		Operating Result		Externalities (Fees to DEUS)	Operating Cost (OMA)				OMA + Depreciation				Management Cost			
		($'000)				(% annual rates & charges) 90% max in bold	(% of potable excluding unaccounted for water)	Written Down Cost ($M)	Current Replacement Cost ($M)	Current Replacement Cost per Assessmnt ($)	(%)			Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)	($/property)		($/property)	($/property)			($/property)				($/property)			
		(57)				(58)	(59)	(60)	(61)	(62)	(63)			(64a)	(64b)	(65)		(66)	(67)				(68)				(68a)			
		2000/01	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*02/03*	*03/04*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*
44	Glen Innes	1,180	1,050	1,000	1,080	87	75	11	21	7,400	2	0	0			-28	29		219	287	250	259	357	466	361	370	87	111	114	114
45	Gloucester	680	630	800	770	88	67	5	9	6,400	1	1	0	34		16	-154	0.3	285	300	415	560	391	434	553	702	60	64	52	66
46	Goldenfields (Bulk Supplier)	7,530	8,240	8,600	5,110			83	108	5,800	9								169	195		220	246	272		323	31	41		51
47	Goldenfields (Reticulator)	7,130	8,030	8,300	7,690	50	43	87	135	13,200	0						195		434	477		484	632	681	564	845	67	87		118
48	Goldenfields (Combined)	14,700	16,300	16,900	12,800	70	25	170	320	22,200		4	3			98	14	0.2			395	396		772	593	652			102	114
49	Gosford	18,500	18,600	19,300	18,900	86	75	214	331	4,900	0	0	0			22	-16	0.0	187	190	204	219	260	263	276	298	98	103	120	130
50	Goulburn	4,820	5,280	4,920	4,620	85	61	25	33	3,600	3	2	2			110	85	0.1	300	290	310	332	395	389	416	437	135	134	147	151
51	Grafton (Unfiltered)	2,320	2,420	2,300	***2,300***	70	64		23	3,100	0	0				25			284	334	369		336	394	546		70	70	97	
52	Griffith	5,010	4,960	6,060	5,020	85	54	43	45	5,000	0	0	0			211	61		387	428	408	415	521	556	548	568	157	154	148	151
53	Gundagai	430	450	450	420	67	50	3	4	4,200	5	3	2			66	14	6.5	282	331	327	350	338	391	384	411	61	77	63	75
54	Gunnedah (Groundwater)	1,790	2,020	2,280	2,030	84	56	15	24	5,800	5	3	2	16		235	158	0.2	181	187	213	225	261	262	284	296	47	49	52	72
55	Gunning (Groundwater)	140	150	170	***170***	90	63	2	3	9,700		0	0			256	265		146	91	133	127	259	200	244	238	56	56	56	56
56	Guyra	440	440	490	500	85	64	6	11	9,100	5	4	0			-72	-27	0.1	204	198	249	216	362	347	402	360	63	62	38	47
57	Harden (Reticulator)	1,010	1,080	1,270	1,150	88	63	5	12	7,900	4	4	4			-83	-95	0.1	442	403	658	443	632	593	1083	744	49	50	61	52
58	Hastings (Unfiltered)	12,100	15,500	16,500	18,900	79	75	168	228	8,200	0	0	0		40	284	317	0.0	168	211	267	273	293	342	401	394	58	70	54	81
58-A	Hawkesbury				**NO WS**																								
59	Hay (Dual Supply)	570	600	620	***620***	76	63	8	10	7,500	0	0	0	45		-7	-5	10.4	222	253	293	297	409	441	481	485	65	78	75	89
60	Holbrook				**NO WS**																								
61	Hume	840	1,290	1,450	1,290	88	67	9	10	4,400	0	0	0			116	77	0.1	491	416	718	555	587	508	940	756	71	73	87	82
62	Hunter Water	71,700	76,000	83,000	87,000		60		955	4,600						0			171	182	186	206	234	241	242	206				
63	Inverell	2,080	2,670	2,820	2,900	79	59	26	46	9,100	0	0	7			27	81	0.3	302	318	410	365	477	490	544	496	73	82	133	109
64	Jerilderie (Dual Supply)	240	260	270	***270***	***90***	63		2	5,000	8	8	0			103	82	7.1	576	237	377	447	638	305	445	513	205	205	70	66
65	Junee				**NO WS**																								
66	Kempsey (Groundwater)	5,330	5,830	6,120	6,380	70	62	73	98	8,800	20	18	16			140	154	1.7	184	204	205	196	272	287	290	283	63	71	73	67
67	Kyogle	720	800	760	1,060	61	75	5	13	7,100	1	1	1			11	-11	0.2	218	248	249	218	373	404	406	364	105	109	109	98
68	Lachlan	1,740	1,710	1,960	1,600	68	74	17	33	12,700	0	0	0			188	50	11.8	276	292	354	338	400	425	497	505	83	94	90	89
69	Leeton	1,990	2,120	2,830	2,430	72	66	14	29	7,600	3	4	1			332	180		276	331	333	366	383	442	442	481	74	84	76	88
70	Lismore (Reticulator)	5,990	4,770	4,120	4,900	75	69	28	43	6,600	1	1	1		2	-1	42	0.0	209	213	248	252	261	267	346	353	42	46	56	57
71	Lithgow	3,090	3,020	3,170	3,380	81	75	17	37	5,000	0	0	0			10	40		259	279	261	266	373	358	356	366	101	124	120	129
72	Lockhart				**NO WS**																								
73	North Coast Water (Unfiltered)	6,140	9,720	30,200	16,900	72	58	128	162	14,700	3	4	5			2494	1175	0.1	166	214	221	238	328	373	381	399	100	119	132	128
74	Maclean				**NO WS**																								
75	Manilla	410	440	480	460	89	75	1	5	4,500	26	21	18			7	-76		294	410	345	395	380	497	444	493	98	140	157	182
76	Merriwa	310	320	340	330	81	61	1	4	7,000	0	0	0			24	17		318	332	338	421	541	562	558	557	74	101	94	138
77	MidCoast (Manning - Unfiltered)																												
78	MidCoast (Great Lakes - Unfiltered)																												
79	MidCoast (Combined - Unfiltered)	15,700	17,400	17,300	19,300	82	75	95	182	5,100	0	12	15			113	140	0.3	201	236	235	262	320	354	351	377	26	26	23	25
80	Moree Plains (Groundwater)	1,510	2,270	2,780	2,870	89	55	8	15	2,800	4	11	5			-35	86	1.7	330	261	464	386	370	309	516	438	103	91	97	161
81	Mudgee (Unfiltered)	2,830	2,700	3,310	3,420	88	70	34	49	10,000	9	8	17			227	257		288	290	322	310	387	389	422	409	110	115	118	134
82	Mulwaree	350	390	430	***430***	82	38	4	6	11,200	11	10	7			0	-66	0.6	319	419	464	556	563	661	700	798	23	21	27	27
83	Murray (Dual Supply)	1,190	1,080	1,170	1,250	86	60	0	8	4,000	31	28	25			116	168	7.7	289	290	325	327	367	371	430	421	89	92	100	101
84	Murrumbidgee (Groundwater)	280	280	320	330	80	70	3	5	6,200	0	0	0			83	120		110	112	210	194	201	207	321	307	20	20	99	103
85	Murrurundi	350	320	370	430	88	63	2	2	3,900	2	1	0			167	351	0.6	159	287	331	254	274	401	438	360	17	28	32	32
86	Muswellbrook	1,970	2,450	3,320	3,510	70	66	11	25	4,800	0	8	25			226	248		298	293	342	348	400	397	450	455	72	71	82	88
87	Nambucca (Groundwater)	2,120	2,190	2,570	2,580	75	62	20	30	4,700	2	1	0			202	184	0.8	141	157	175	187	200	217	241	251	59	66	79	86

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	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 6)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 6)											
		Total Turnover (excl. Capital Works Grants)				Residential Revenue	Residential Consumption	Current Replacement Cost (CRC) of System Assets			Debt to Equity			Cross Subsidies		Operating Result		Externalities (Fees to DEUS)	Operating Cost (OMA)				OMA + Depreciation				Management Cost			
		($'000)				(% annual rates & charges) 90% max in bold	(% of potable excluding unaccounted for water)	Written Down Cost ($M)	Current Replacement Cost ($M)	Current Replacement Cost per Assessmnt ($)	(%)			Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)	($/property)		($/property)	($/property)			($/property)				($/property)				($/property)			
		(57)				(58)	(59)	(60)	(61)	(62)	(63)			(64a)	(64b)	(65)		(66)	(67)				(68)				(68a)				
		2000/01	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*02/03*	*03/04*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*
88	Narrabri (Groundwater)	1,640	1,770	1,930	1,910	81	64	11	22	5,100	2	2	1			217	200	1.8	156	184	170	176	226	256	242	248	38	79	63	67
89	Narrandera (Groundwater)	1,200	1,170	1,280	1,190	81	73	9	12	5,600	1	0	0			309	257	5.5	212	222	260	262	264	277	315	324	56	53	60	61
90	Narromine (Groundwater)	700	750	950	***950***	88	75	3	9	4,400	0	0	0			22	67	2.6	269	268	343	307	372	371	438	391	122	118	116	116
91	Nundle (Groundwater)	120	110	110	***110***	***90***	75	1	2	6,900	30	30	29			-231	-139		396	646	413	329	639	912	687	594	34	42	38	37
92	Oberon (Reticulator)	1,220	930	1,020	970	42	33	5	6	4,700	27	23	18		13	55	95		347	376	344	350	435	455	588	593	79	66	59	50
93	Orange	6,740	7,530	8,380	10,500	79	63	69	97	6,600	0	0	1			99	151	0.1	193	244	250	273	308	373	383	412	46	72	91	105
94	Parkes	4,450	4,910	5,380	5,850	54	32	42	79	13,500	0	0	0			300	360	7.1	363	387	421	436	549	575	611	627	53	54	59	61
95	Parry (Groundwater)	810	890	920	950	86	56	10	20	10,500	18	17	16			7	25		256	238	265	269	394	388	416	420	45	52	55	53
96	Pristine Waters (Unfiltered)	***830***	830	920	1,040	***90***	75	9	13	6,400	8	6	***4***			142	-23		***160***	210	287	295	***254***	305	416	441	***53***	21	24	25
97	Queanbeyan (Reticulator)	12,800	7,310	8,460	7,400	85	63	40	48	3,100	0	0	0			72	27	0.0	228	289	318	256	340	420	449	318	90	100	98	89
98	Quirindi (Groundwater)	510	510	490	***490***	84	68	5	10	7,200	0	0	0			49	57		152	178	229	212	236	266	316	300	40	44	57	66
99	Richmond Valley	2,570	2,570	2,570	3,180	67	63	21	32	5,400	1	1	0			-18	74	0.1	247	277	350	325	318	349	437	409	113	116	157	142
100	Riverina (Groundwater)	12,000	13,000	15,100	15,600	73	62	108	196	6,900	7	6	5			179	154	0.1	198	204	220	211	328	336	349	342	56	58	61	61
101	Rous (Bulk Supplier)	7,660	7,820	8,300	9,790			77	119	3,200	0	0	2			7	70	0.1	150	141	172	151	204	197	232	208	60	74	86	76
102	Rylstone	620	660	710	***710***	87	63	7	14	10,900	0	0	0			-65	-101		315	421	384	423	514	618	578	614	78	132	136	241
103	Scone (Unfiltered)	1,280	1,510	1,750	1,730	79	74	11	17	6,600	0	0	0			268	262		259	246	296	287	337	325	381	371	89	92	106	128
104	Severn (Unfiltered)	50	47	49	65	***90***	75	0	1	3,400	12	11	8			-86	-43		136	172	205	248	273	306	340	383	44	70	92	103
105	Shoalhaven	16,300	17,600	19,100	19,800	74	66	161	238	5,100	6	4	3			150	175	0.0	136	198	195	191	220	284	281	275	54	92	100	103
106	Singleton	3,200	3,870	4,630	5,590	76	64	27	40	6,900	0	0	0		216	429	559	17.8	330	303	295	294	461	434	425	424	132	101	114	92
107	Snowy River (Unfiltered)	1,780	1,250	1,190	1,370	***90***	75	14	21	8,700	12	2	1			29	83	0.2	134	161	189	202	236	266	295	313	48	66	64	70
108	Sydney Water	690,000	785,000	755,000	677,000		69		5,770	3,500						0			241	229	239	296	338	316	325	296				
109	Tallaganda (Unfiltered)	200	240	280	300	78	63	3	4	5,600	0	0	0			97	117		170	187	234	217	333	349	421	399	32	35	43	33
110	Tamworth	7,160	7,610	8,200	8,910	63	58	81	151	10,100	1	0	0			44	139	4.9	264	325	360	295	383	472	504	438	96	102	127	100
111	Temora				**NO WS**																									
112	Tenterfield	890	860	860	870	76	72	-12	15	7,600	0	0	0			-58	-71	0.3	348	308	375	349	522	484	554	513	110	153	189	173
113	Tumbarumba	450	470	480	680	88	63	4	9	8,200	0	0	3			70	236	0.7	192	179	216	233	341	335	371	394	57	66	81	84
114	Tumut	1,930	2,110	2,380	2,300	72	52	20	33	7,900	1	1	1			177	121	2.8	231	232	266	307	369	381	413	452	77	80	83	93
115	Tweed	13,900	17,100	14,400	16,400	76	73	135	190	6,400	1	0	0			184	216	0.0	175	184	210	222	284	294	324	336	77	73	88	112
116	Uralla		520	530	560	86	75	5	9	6,900	2	2	2			-90	22	0.2	232	254	326	273	232	371	441	391	103	104	164	118
116-A	Urana				**NO WS**																									
117	Wagga Wagga				**NO WS**																									
118	Wakool	820	860	1,120	1,140	71	75	13	17	12,400	15	18	18			172	141	11.2	131	423	375	412	240	568	533	582	30	104	112	97
119	Walcha	380	390	410	430	87	63	6	10	12,200	1	1	0	7		-11	-11	0.1	348	295	351	347	488	435	493	502	83	80	113	93
120	Walgett (Dual Supply)		1,010	1,170	1,210	***90***	63	7	15	9,200	4	3	3			-57	-28	6.0	370	530	539	539	676	842	862	861	120	122	113	168
121	Warren (Dual Supply)	460	420	460	440	***90***	75	5	7	6,900	4	5	3			-2	16	8.7	269	364	317	262	387	457	454	408	60	75	57	59
122	Weddin				**NO WS**																									
123	Wellington	1,660	1,720	1,980	1,750	89	75	13	22	7,400	14	13	17		4	70	30	1.4	366	392	468	376	484	513	587	483	121	131	135	104
124	Wentworth (Dual Supply)	1,220	1,210	1,510	1,590	72	63	19	20	11,700	14	11	10		130	132	18	17.6	448	466	474	542	706	726	726	832	78	95	114	110
125	Wingecarribee	8,540	9,560	9,380	9,680	82	75	64	105	5,700	8	6	4			184	211		171	175	181	163	277	283	286	263	78	82	86	80
126	Wyong	21,600	28,200	33,000	28,200	78	75	197	310	5,300	6	6	6			255	149	0.0	168	183	199	199	274	294	315	313	61	64	77	83
127	Yallaroi (Groundwater)	350	370	400	***400***	89	68	6	8	10,400	31	34	31			18	-126	1.3	262	357	343	432	355	453	439	559	29	33	33	72
128	Yarrowlumla (Groundwater)	1,240	830	740	***740***	***90***	63		6	6,200	2	1				156		0.1	201	188	241		272	267	347		72	63	95	
129	Yass Valley	1,350	1,410	1,300	1,770	***90***	75	16	33	11,200	1	0	0			70	192	0.2	308	301	275	285	453	439	426	421	115	92	98	102
130	Young (Reticulator)	1,930	1,930	2,160	2,200	***90***	67	6	7	1,900	4	5	4			40	42	0.1	256	259	367	250	318	318	568	381	35	37	35	35

Table 11 - Water Supply - Financial, Efficiency

	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 6)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 6)											
		Total Turnover (excl. Capital Works Grants)				Residential Revenue	Residential Consumption	Current Replacement Cost (CRC) of System Assets			Debt to Equity			Cross Subsidies		Operating Result		Externalities (Fees to DEUS)	Operating Cost (OMA)				OMA + Depreciation				Management Cost			
		($'000)				(% annual rates & charges) 90% max in bold	(% of potable excluding unaccounted for water)	Written Down Cost ($M)	Current Replacement Cost ($M)	Current Replacement Cost per Assessmnt ($)	(%)			Annual Fees & Charges ($/assessment)	Developer Charge ($/assessment)	($/property)		($/property)	($/property)				($/property)				($/property)			
		(57)				(58)	(59)	(60)	(61)	(62)	(63)			(64a)	(64b)	(65)		(66)	(67)				(68)				(68a)			
		2000/01	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*02/03*	*03/04*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*
131	Albury City	6,174	6,536	7,332	9,726	78	64	144	227	11,704	1	1	0			10	43	4.1	203	214	252	208	289	302	375	373	98	113	120	94
132	Clarence Valley	9,290	12,970	33,420	20,240	73	62	138	198	24,200	2	3				1270	596		214	263	288	297	324	375	452	463	84	90	108	107
133	Coffs Harbour	13,000	14,000	15,300	16,300	71	72	133	165	7,000	26	23	20			345	332		176	205	195	217	247	277	265	299	88	106	96	97
134	Corowa	1,871	1,975	2,394	2,085	65	65	22	36	10,592	1	0	1			141	64	9.7	258	265	361	326	352	358	481	441	74	75	78	96
135	Glen Innes Severn	1,230	1,097	1,049	1,145	87	75	11	21	10,800	3	1	1			-32	24		213	279	247	258	351	455	359	371	84	108	113	114
136	Goulburn Mulwaree	5,170	5,670	5,350	5,050	85	60	29	38	14,800	3	3	2			105	78	0.1	301	296	318	343	404	403	431	455	130	128	141	144
137	Greater Hume	484	679	765	709	81	66	4	6	5,504	0	0	0			115	63	0.7	349	305	501	433	426	380	656	575	61	66	77	76
138	Gwydir	640	670	750	750	85	61	6	12	16,600	26	27				63		1.3	216	334	277	322	307	426	370	430	44	102	49	69
139	Liverpool Plains	896	921	923	947	85	64	9	18	12,075	6	5	5			43	64		186	204	246	232	289	313	356	342	40	46	55	60
140	Mid Western Regional	3,450	3,360	4,020	4,130	88	69	40	63	20,900	7	6	14			169	186		293	316	335	333	412	435	453	450	103	118	122	155
141	Palerang	1,440	1,070	1,020	1,040	85	63	3	10	11,800	1	1				133			189	188	238	232	295	298	375	367	57	53	75	72
142	Tamworth Regional	8,604	9,083	9,771	10,450	66	59	93	176	35,605	4	3	3			34	111		264	323	350	298	383	467	491	439	91	99	122	101
143	Upper Hunter	1,870	2,086	2,386	2,404	81	70	13	23	16,720	0	0	0			216	234		255	265	308	304	362	373	417	400	77	85	94	117
144	Upper Lachlan	780	790	900	970	84	63	7	10	16,000		16	14			160	183		223	210	272	303	335	312	384	417	36	41	56	58
145	Warrumbungle	1,530	1,590	1,620	1,660	***90***	68		34	20,100	0	0				-65	15		334	380	425	369	494	538	598	535	147	162	178	141

Table 12 - Water Supply - Health, Levels of Service

	LWU	HEALTH																LEVELS OF SERVICE																	
		Water Quality Compliance (%)																Water Quality Complaints (per 1000 properties) (73)			Water Service Complaints (per 1000 properties) (74)			Written Complaints (per 1000 properties) (75)	Average Customer Outage Time (mins/property-unplanned) (76)			Customer Interruption Frequency (No./1000 properties) (77)			Average Duration of Interruptions (Hours) (78)			Drought Water Restrictions (% of time) (78A)		
		Physical (69) 1996 NHMRC/ARMCANZ Guidelines			Chemical (70) 1996 NHMRC/ARMCANZ Guidelines					E. coli (71) 1996 NHMRC/ARMCANZ Guidelines					Total Coliforms (72) 1996 NHMRC/ARMCANZ Guidelines																							
		2001/02	*2002/03*	*2003/04*	*1999/00*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*1999/00*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*
1	Albury	98	95	100	40	93	100	92	99	96	94	100	100	100	96	99	99	1	1	0	16	16	14							3	3	3	0	25	0
2	Armidale Dumaresq	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	92			25			91												0
3	Ballina (Reticulator)	100			100	99	100	100	95	100	100	100	100	100	89	79	88	3	1	0	12	2	3	0	0	1	0	13	5	4	0	2	2	0	58	0
4	Balranald (Dual Supply)	100	100	100		100	100	100	98		100	100	100	100	98	100	90	16	17	7	26	7	5	0	1	97	141	8	809	782	3	2	3	0	35	66
5	Barraba	99		100	100	100	100	100	96			92	100	100	79	83	79	7	7	9	45	7	9	2						1	1	1	11	34	100
6	Bathurst Regional	100	100	100	100	100	100	100	99	100	100	100	100	100	99	89	87	9	15	10	19	5	4		1			10			2	2	2	0	0	0
7	Bega Valley (Unfiltered)	100			83	100	99	99	100	96	82	97	100	100	94	95	100		0		3	3	3	2							4	2	2	0	56	24
8	Bellingen (Unfiltered)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	98		9	4		10	31								3	2	0	35	0
9	Berrigan (Dual Supply)	100	100	100	100	100	100	100	99	100	100	100	100	100	96	98	99	4	5	3	3	6	5	1	0	0	0	5	3	3	1	0	1	0	0	0
10	Bingara						100	98		95		92	95	88	77	66	28		8	21		15	21	0		1	18		5	74		4	4		0	0
11	Bland			**No WS**																															
12	Blayney			**No WS**																															
13	Bogan	97			96	98	97		100	100	97	100	93	97	95	61	52	2			3										2	2		0	66	100
14	Bombala	100			38	50	100	100	100	87	90	75	100	97	75	95	75	6	3	3	46	2	6	0	28	22	3	188	123	15	2	3	3	0	26	100
15	Boorowa	100					100	100	100			93	100	93	86	65	54	0	0	0	21	0	0	0	6	3		31	18		3	3	3	0	25	
16	Bourke (Dual Supply)			76	50		100	87	93	40	67	91	97	100	81	83	72	0	20	8	192	20	4	0	0	0		0	1		3	3	3	0	55	0
17	Brewarrina	60	60	60	80	100	100	100	95	100	100	100	100	100	100	100	79	6	6		0	0	6	0	9	9	0	75	75	43	2	2		50	100	0
18	Australian Inland	100	93	94	100	100	100	90	98	100	100	100	100	100	100	100	98	2	2	30	9	90	11	6							1	1	1	0	60	12
19	Byron (Reticulator)	100	98	94	93	93	87	96	98	100	100	100	100	100	93	89	96	0	0	0	0	3	5	0	0	0	0	3	3	2	2	2	2	58	73	27
20	Cabonne	83	83	50	70	72	100	88	99	93	100	97	100	100	97	92	75	1	4	13	18	14	13	0					0					0	0	0
21	Carrathool (Groundwater)	100	100	100	100	80	100	86	98	100	100	81	100	100	89	82	90	51	4	4	6	8	7	0	18	53	0	37	353	0	8	3	3	0	6	0
22	Central Darling (Dual Supply)				93			89	100	95		75	91	100	62	75	80	23	19	18	150	140	124								3	4	2	0	49	0
23	Central Tablelands	100	100	100	12	15	100	100	100	100	100	100	100	100	99	100	99	30	16	10	35	32	8	2		1	1		2	6	4	4	4		62	14
24	Cobar	100	100	100	100	100	100	100	100	100	100	100	100	100	98	2	100	3	1	0	10	2	3	2	1	1	0	1	4	2	8	2	3	7	133	100
24-A	Cobar WB (Bulk Supplier)						100	100		100		100	100		98	98																			
25	Coffs Harbour (Unfiltered)		92	100	99		100	95	100	92		100	100	100	98	98	90	4	5	5	10	23	11	1		3	4	30	29	32	2	2	2	71	73	49
26	Coolah	95	100	83	63	90	100	100	83	91	95	100	100	84	100	100	84	3	9	9	5	11	4	0	1	1	1	4	9	9	3	1	2	0	44	82
27	Coolamon			**No WS**																															
28	Cooma-Monaro	100	100		38	100	100	70	100	89	88	85	100	100	81	50	91	3	2	2	17	13	37	1							3	3	3	0	34	0
29	Coonabarabran	100	100	100	73	67	100	100	100	93	100		100					2	0	1	13	0	0	0	2	1	2	8	5	11	4	3	3	78	100	100
30	Coonamble (Groundwater)		100	70	60		100	54	97	90		100	100	91	100	100	78	309	5	2	330	196	97	2	59	5	2	42	79	41	23	1	1	0	41	0
31	Cootamundra (Reticulator)	100					98	100	99			100	100	100	96	79	92	7				85	61	0		0	0		0	0	2	2	2	0	41	100
32	Copmanhurst (Unfiltered)			**No WS**																															
33	Corowa	75	100	100	100		100	96	98	93	96	100	100	72	60	80	100	8	2	2	15	36	24	0							2	2	2	0	75	100
34	Cowra	95		94		100	100	95	97		95	95	100	100	95	85	79	26	10	7	6	10	40		1			7			2	2	2	8	0	84
35	Crookwell	100	100	100	50	100	100	100	100	100	100	100	100	100	98	98	53	14	13	0	11	13	0	0	3	3		13	14	0	3	3		12	74	60
36	Culcairn (Groundwater)	100	100	100	100	100	100	100	100	90	54	92	100	100	51	100	100	11	13	13	0	11	11	0	43	0	0	181	0	0	4			0	7	7
37	Deniliquin	100	100	100	100	100	100	100	98	100	100	100	100	100	96	98	90	10		1	13		38	2										0	0	0
38	Dubbo	97	98	100	100	100	100	98	99	100	95	97	100	97	96	88	87	1	1	1	2	1	1	0	4	8	9	29	58	79	2	2	2	0	0	0
39	Dungog (Reticulator)	100	100	90			100	100	99	100		90	96	100	90	67	90	6		0	87	81	73	1		14	364		47	1011		5	6	0	0	0
40	Eurobodalla (Unfiltered)	92		25	100	100	99	98	99	100	100	100	100	100	89	85	84	4	16	32	41	34	9	1		0	6	40	0	20	1.5	2	5	0	73	
41	Fish River WS (Unfiltered, Bulk Supplier)	100	100	100	84	84	98	87	98	100	100	100	100	100	98	83	69	0	0	0	0	0	0	0		0	0		0	0		8	8	0	9	100
42	Forbes	100	100	100	50	80	96	99	98	94	93	100	100	100	100	100	87	1	1	1	6	29	28	0	9	5	32	52	42	205	3	2	3	0	0	100
43	Gilgandra (Groundwater)	100	100	100	100	100	100	100	100	100	100	80	100	100	80	100	95	4	2	4	8	17	16	2	3	5	5	15	38	38	3	2	2	0	0	0

Table 12 - Water Supply - Health, Levels of Service

	LWU	HEALTH																LEVELS OF SERVICE																	
		Water Quality Compliance (%)																Water Quality Complaints (per 1000 properties) (73)			Water Service Complaints (per 1000 properties) (74)			Written Complaints (per 1000 properties) (75)	Average Customer Outage Time (mins/property-unplanned) (76)			Customer Interruption Frequency (No./1000 properties) (77)			Average Duration of Interruptions (Hours) (78)			Drought Water Restrictions (% of time) (78A)		
		Physical (69) 1996 NHMRC/ARMCANZ Guidelines			Chemical (70) 1996 NHMRC/ARMCANZ Guidelines					E. coli (71) 1996 NHMRC/ARMCANZ Guidelines					Total Coliforms (72) 1996 NHMRC/ARMCANZ Guidelines																							
		2001/02	*2002/03*	*2003/04*	*1999/00*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*1999/00*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*
44	Glen Innes	100	100	100	100	100	100	100	92	100	100	100	92	96	100	92	96	2	7	8	39	50	45		1	2	1	11	20	7	2	2	3	0	33	
45	Gloucester	100	100	100	100	100	100	100	97	93	85	94	96	92	94	89	81	10	0	0	35	44	116	0			1		0	4			4	0	25	0
46	Goldenfields (Bulk Supplier)	100	96	100	99	94	98	99	98	100	100	100	100	100	88	84	97		9	10					2			20			2					#####
47	Goldenfields (Reticulator)	100			98	98	98			95	96	100	100		88			20	16		105	96	81		22	21	29	182	171	243	2	2	2	0	66	
48	Goldenfields (Combined)	100	96	100	99	94	98		98	96	97	100	100	100	88	84	97		9	10		55	43			12	16		97	129		2	2		66	75
49	Gosford	100	100	100	100	100	100	100	100	100	100	100	100	100	97	100	89	9	6	8	69	36	17		17	32	48	123	220	278	2	2	3	35	100	100
50	Goulburn	100	98	100	100	100	100	100	99	93	100	100	100	100	100	90	94	3	2	6	3	40	89				1		4	7	3		3	0	80	100
51	Grafton (Unfiltered)	100	100		100	99	100	100		96	100	96	97		90	76		7	2	2	33	14	22								3	3	3	0	66	
52	Griffith	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	96	7	2	3		2	2	1	1	0	9	12	26	39	2	0	4		0	0
53	Gundagai	100	100	100	92	100	100	100	98	100	100	100	100	100	96	100	100	7	5	0	3	2	3	2	2	4	2	21	20	20	2	3	2	0	0	63
54	Gunnedah (Groundwater)						100	86	99			95	81	79	50	34	34	1	1	0	0	0	2	7	0	0	0	4	4	5	2	2	2	0	0	0
55	Gunning (Groundwater)	100			50	50	50	100	100	84	84	91	100	94	90	74	71	9	3	0	18	6	78	0	0	1	0	0	12	0	1	2	2	10	36	58
56	Guyra	100	100	100			100	100	100	100		100	100	100	98	100	51	5	3	0	0	0	0	0	6		4	52		31	2		2	0	0	0
57	Harden (Reticulator)	100	86	80	100	100	100	100	100	100	84	87	93	90	67	72	68	26	10	21	38	24	37	1	2	2	2	28	27	27	2	2	2	0	0	0
58	Hastings (Unfiltered)	73	88	81	39	56	71	94	99	100	100	100	100	100	99	99	100	8	7	6	33	6	8	1	3	2	2	18	12	13	3	3	2	73	56	67
58-A	Hawkesbury			**No WS**																																
59	Hay (Dual Supply)	100	100	100	100	100	100	100	98	100		100	100		98	98	100			0			12										8	0		
60	Holbrook			**No WS**																																
61	Hume	100		100	100	100	100		100	100		100	95	100	76	62	100	0	0	0	0	0	0	0	5	48	2	25	268	11	3	3	3	0	58	
62	Hunter Water		100					100		100	100		100			99			13	7						34			259			2	2			
63	Inverell	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	94	1	1	1	54	42	5	1	0	0	0	6	5	5	1	1	1	0	0	0
64	Jerilderie (Dual Supply)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	5	2		5	5	0	0	84	5		398	30	0	4	3		0	0	0
65	Junee			**No WS**																																
66	Kempsey (Groundwater)	100	100		88	100	100	100	100	100	100	100	100	100	96	99	100	39	6	10	18	4	3	0		5			32			3	3	4	52	0
67	Kyogle	100	100	2	100	100	100	99	80	88	100	95	94	87	95	71	48	3	4	3	24	17	30	1	4	2	1	32	23	10	2	2	1	28	86	49
68	Lachlan	99	90	80	82	99	99	100	97	67	97	100	96	100	99	84	72	3	0	1	2	4	3	3	0	0	1	4	3	6	1	1	2	8	27	100
69	Leeton	100	100	100	100	100	100	100	100	100	100	100	100	100	100	96	98	2	1	1	5	2	2	0	0	6	6	2	47	49	2	2	2	0	0	0
70	Lismore (Reticulator)	92	93	100	100	100	100	96	99	100	100	100	100	100	98	85	87	2	2	2		3	6	0		12	5		75	84	1	3	1	12	77	0
71	Lithgow	100	100	100		100	100	100	97		100	100	100	100	100	100	70	11	11	1	14	23	16	1	5	5	1	43	43	15	2	2	2	0	0	77
72	Lockhart			**No WS**																																
73	North Coast Water (Unfiltered)	94	99	93	45	85	100	100	99	96	97	94	94	95	80	22	4	13		21	5	12	17	0	5	5	8	34	30	55	3	3	3	0	67	43
74	Maclean			**No WS**																																
75	Manilla	99	100	100	99	100	99	100	91	100	100	100	100	100	93	99	71	0	1	0		0	0	0	5	2		20	16		4	2	2	0		58
76	Merriwa	100	100	100	100	100	100	100	100	100	96	100	93	100	98	93	95	9	5	5	4	3	5	0	2	1	1	23	10	12	1	2	2	0	26	0
77	MidCoast (Manning - Unfiltered)																																			
78	MidCoast (Great Lakes - Unfiltered)																																			
79	MidCoast (Combined - Unfiltered)	97	97	97	90	82	92	91	92	100	100	100	100	97	87	84	85	23	14	27	55	47	41	1										2	23	48
80	Moree Plains (Groundwater)	99	99	97	100	95	100	100	99	100	100	97	100	100	94		95	2	21	12	98	43	58	1	4		26	63		284	1	2	2	0.2		0
81	Mudgee (Unfiltered)	70	90	64	80	85	90	75		100	100	100	75	100	100	97	84	21	6	24	62	64	44	1	12	12	12	103	103	99	2	2	2	0	0	0
82	Mulwaree	100			100	100	100	100		96	96	100	100		100	97		4	4	0	17	18			13	37		211	205		1	3		16	67	67
83	Murray (Dual Supply)		100		100			100	100		100	96	100	100	88	100	100	2	0	2	5	1	0	0	35	35	49	106	185	370	6	3	2	0	92	75
84	Murrumbidgee (Groundwater)				75				99	83	100	93	100	100	92	99	83	25	5	16	13	0	0	0	0	0		3	3		2	2	2	0	0	
85	Murrurundi	75						98	98	88	100	100	100	100	98	92	88	40	0	20	25	15	20	8	6	2	7	32	8	36	3	4	3	21	55	0
86	Muswellbrook	54	94	76	95	97	98	99	97	95	100	100	100	100	93	99	97	13	12	14	4	2	3	0	1	7	3	6	67	29	2	2	2	3	39	0

Table 12 - Water Supply - Health, Levels of Service

	LWU	HEALTH																LEVELS OF SERVICE																	
		Water Quality Compliance (%)																Water Quality Complaints (per 1000 properties) (73)			Water Service Complaints (per 1000 properties) (74)			Written Complaints (per 1000 properties) (75)	Average Customer Outage Time (mins/property-unplanned) (76)			Customer Interruption Frequency (No./1000 properties) (77)			Average Duration of Interruptions (Hours) (78)			Drought Water Restrictions (% of time) (78A)		
		Physical (69) 1996 NHMRC/ARMCANZ Guidelines			Chemical (70) 1996 NHMRC/ARMCANZ Guidelines					E. coli (71) 1996 NHMRC/ARMCANZ Guidelines					Total Coliforms (72) 1996 NHMRC/ARMCANZ Guidelines																							
		2001/02	*2002/03*	*2003/04*	*1999/00*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*1999/00*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*
87	Nambucca (Groundwater)	100	100	100	100	100	100	100	100	100	97	100	100	100	100	100	94	2	2	2	4	6	5	0	1	0	2	7	6	17	2	1	2	5	56	100
88	Narrabri (Groundwater)	100	34	90			100	100	100	70	91	100	100	97	94	90	78	20	30	8	4	91	84	8	1	0		6	0		4	3	2	0	0	0
89	Narrandera (Groundwater)	100	100	100	88	92	92	100	95	100	100	100	100	100	100	100	94	5	10	7	1	7	8	0	4	9	7	50	99	74	2	2	2	0	0	0
90	Narromine (Groundwater)				100			96	96			94	85	100	67	56	88		1	1		117	84	0											0
91	Nundle (Groundwater)	100	97	100	100	100		100	96	100	100	100	100	100	100	97	67	0	0	0	0	0	0	5	3	2		19	14		3	2	2	0	64	7
92	Oberon (Reticulator)	100					98	100	100			100	100	100	98	98	96	12		4	16		12	0			1			9	3		2	0		16
93	Orange	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99	69	6	3	15	13	14	40								4	3	3	0	41	100
94	Parkes	100	100	100		100	100	95	100	95	94	100	100	100	98	97	97	9	2	2	27	3	2	2							2	2	2	0	64	100
95	Parry (Groundwater)	100	100	50	100	100	100	98	94	96	72	76	95	94	60	79	84	2	1	2	3	1	1	1	3	0		33	4		1	1	2	0	90	32
96	Pristine Waters (Unfiltered)					100	99	97		96	96	100	100		86	82			6	2		24	19	1					0	0				0	0	
97	Queanbeyan (Reticulator)	100	100	100	100	100	100	80	100	100	88	100	100	100	93	98	93	14	14	2	6	6	9	0	0	0	0	0	0	0	2	2	2	0		
98	Quirindi (Groundwater)	90	90	100	100	100	100	100	100	100	100	100	100	100	95	98	100	0			3	4	6	0	2	1	1	31	36	26	1	0	1	0	35	0
99	Richmond Valley				50				96	100		100	100	100	97	81	79	4	0	0	7	6	6	1	12	0		66	0		3	3	2	4	76	35
100	Riverina (Groundwater)	97	94	94	98	98	99	98	96	100	100	100	100	100	96	89	92	4	5	1	3	3	5	1	17	18	18	108	110	90	3	3	3	0	21	56
101	Rous (Bulk Supplier)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	0	2	0	0		1	1	1	5	5	4	3	3	3	0	76	0
102	Rylstone	100	100	100	100		100	100	100	100	100	100	100	100	100	100	98	2	3	3	5	4	3				0			0		3	2		33	62
103	Scone (Unfiltered)	100	100	100	100	100	100	100	92	100	100	100	100	100	96	99	97	4	1	4	109	141	41			87	75		867	613	3	2	2	0	16	19
104	Severn (Unfiltered)							100			92	92	63	87	92	22	17	32	65	49	16	11	5	5	0	0	0	0	0	0	0			0	20	0
105	Shoalhaven	96	97	98	84	96	97	98	99	100	100	100	100	93	88	91	83	5	3	3	4	6	5	0							3	3	3	0	29	0
106	Singleton	100	100	100	100	100	100	100	100	100	100	100	100	100	99	100	99	1	2	2	20	16	23		46	45	44	382	374	363	2	2	2	0	0	0
107	Snowy River (Unfiltered)					100	100	99	100			91	100	100	73	83	81		0			6	6	1		0			0			2		0	0	
108	Sydney Water		100					100		100	100		100	100			99		2	1						38			275			2	2			
109	Tallaganda (Unfiltered)	100	90		100	100	100	100	100	100	92	94	82		92	52		2	9		0	9			2	13		13	74		2	3		0	16	
110	Tamworth	99	100	97	100		100	100	100	100	100	100	100	96	98	96	88	2	2	1	3	30	37								2	2	3	0	100	100
111	Temora			**No WS**																															
112	Tenterfield	90		100	79	90	92	97	100	92	86	88	100	100	81	100	100	32	0	5	5	24	26	0	8	7	7	47	41	49	3	3	3	5	100	100
113	Tumbarumba	100	100			100	100	100	100		100	100	97	97	93	61	56	5	0	2	12	4	8	2	9	0	0	51	0	2	3	2	3	0	24	0
114	Tumut	100	100	99	75	75	100	99	97	100	100	100	95	100	100	93	95		2	6		73	6	0		0	0		0	0	3	3	3	0	47	0
115	Tweed			100	99	99		96	99	100	100	100	100	100	100	99	99	3	2	2	29	31	36		3	7	5	27	60	46	2	2	2	0	34	0
116	Uralla	100	100	100	100	100	100	100		100	100	100	95	100	100	63		1	1	3	4	2	2	1	3	6	4	29	47	32	2	2	2	0	23	0
116-A	Urana			**No WS**																															
117	Wagga Wagga			**No WS**																															
118	Wakool (Dual Supply)						97	97	98			95	100	100	69	92	88	3	0	0	0	0	0		0			0	0	0	2			0	0	
119	Walcha	100	100	98	100	100	100	100	100	100	100	100	100	100	100	100	96	4	2	4	14	18	7	2	3	1	1	24	12	12	2	2	2	0	60	0
120	Walgett (Dual Supply)	100	100	100			100	94	98			100	95	91	100	85	71	1	1		1	4												0	6	
121	Warren (Dual Supply)	100	100	100	75	75	50	89	98	100	100	100	100	100	100	78	50	16	3	2	48	13	33								4			0		0
122	Weddin			**No WS**																															
123	Wellington	100	100		100	100	100	100	100	100	100	100	100	100	100	96	73	5	0	17	34	24	17		14	8	17	93	65	139	3	2	2	0	0	0
124	Wentworth (Dual Supply)	98	98	100		98	98	98	97		100	100	100	89	99	97	79	2	23	7	0	26	20	1	1	1	1	12	12	14	1	1	1	0	6	0
125	Wingecarribee	100	100	100	100	100	100	100	99	100	100	100	100	100	96	90	85	11	4		23	25	29				19			80	3		4	0	47	8
126	Wyong	100	100	95	100	100	100	100	100	100	100	100	100	100	90	84	78	6	6	7	3	2	2			12	4	39	69	24		3	3	34	100	100
127	Yallaroi (Groundwater)			100			100	97	100			100	78	86	70	66	69	7		0		30	4	0	12	16	61	69	95	254	3	3	4	12	36	25
128	Yarrowlumla (Groundwater)				97		100	98		100	100	100	100	100	100	100	96	13	1	1	34	54	19	0	1	1		6	18	1	4	1		0	61	100
129	Yass Valley	100	100	100	100	100	100	100	98	100	100	94	94	95	94	92	65	2	1	1	2	3	15	0	0	1	2	2	3	10	3	3	3	8	66	37
130	Young (Reticulator)	100					100	98	97	100	63	94	100	100	94	76	85	5			8	9	10	0	3	3	7	24	21	58	2	2	2	0	21	0

Table 12 - Water Supply - Health, Levels of Service

LWU		HEALTH																LEVELS OF SERVICE																	
		Water Quality Compliance (%)																Water Quality Complaints (per 1000 properties) (73)			Water Service Complaints (per 1000 properties) (74)			Written Complaints (per 1000 properties) (75)	Average Customer Outage Time (mins/property-unplanned) (76)			Customer Interruption Frequency (No./1000 properties) (77)			Average Duration of Interruptions (Hours) (78)			Drought Water Restrictions (% of time) (78A)		
		Physical (69) 1996 NHMRC/ARMCANZ Guidelines			Chemical (70) 1996 NHMRC/ARMCANZ Guidelines					E. coli (71) 1996 NHMRC/ARMCANZ Guidelines					Total Coliforms (72) 1996 NHMRC/ARMCANZ Guidelines																							
		2001/02	*2002/03*	*2003/04*	*1999/00*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*1999/00*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*
131	Albury City	98		100	41	93	100	90	99	96		100	100	100	96	98	99	1	1	0	15	15	14					3	3	3	0	25	0
132	Clarence Valley	94	99	93		96	100	96	99	96	97	100	100	95	93	88			2	1		16	18							0	60	***43***
133	Coffs Harbour						100	95	100	92		100	100	100	98	98			5	5		23	11							71	73	49
134	Corowa	80		100	100	22	100	75	98	95		100	100	100	63	76	100	6	1	2	12	28	19					3	3	3	0	71	100
135	Glen Innes Severn							100	86	93	100	100	90	95	99	87	90	4	11	11	37	47	42					2			0	32	
136	Goulburn Mulwaree	100			100	100	100	100	99	93	100	100	100	100	100	90		3	2	5	4	39						4			1	80	98
137	Greater Hume	100		100	100	100	100	38	100	96		97	97	100	66	77	100	4	5	5	0	4	4					5			0	38	***7***
138	Gwydir						100	97	99			96	86	87	74	66	48			10		23	12						7	8		18	7
139	Liverpool Plains	94	94	84		100	100	99	98		91	92	100	100	84	92	94	1			5	3	4					2	1	2	1	54	10
140	Mid Western Regional	76	92	71	84	68	92	80		100	100	100	80	100	100	98	87	17	6	20	50	52	35						5	4		7	12
141	Palerang				98	38	100	99	99	100	97	100	93	*100*	97	82		9	4		21	37						6	4		0	44	***100***
142	Tamworth Regional	98	99	97		16	99	99	98		100	100	100	96	97	96	86	3	3	1		26	31					14	9	13	0	***100***	91
143	Upper Hunter	100	100	100				100	94		100	100	100	100	97	98	95	10	3	6	85	103	32					8	7	7	3	23	14
144	Upper Lachlan	100			50	89	89	100	100	96	96	100	100	100	96	92	57	13	11	0	13	12	18					4	5		12	65	59
145	Warrumbungle	98	100	94	69	76	100	100	94	92	100		100			37		2	3	4	10	4	1					7	4	5	49	79	93

Table 13 - Water Supply - Benchmarking Cost Data (Operating, Management, Wholesale/retail)

	WATER UTILITY	OPERATING COST										MANAGEMENT COST			RETAIL/WHOLESALE		PUMPING COST						WATER MAIN COST				TREATMENT COST			
		Components (1)				Components (2)						Components			Components		Components						Components				Components			
		Maintenance	Operation	Energy	Chemicals	Dams & Weirs	Mains	Reservoirs	Pumping Stations	Water Treatment	Other	Administration	Engineering & Supervision	Total	Wholesale	Retail	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	Energy Cost	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Chemical
			($/property)					($/property)				($/property)		(c/kL)	($/property)		(c/kL)	($/pumping station)				($/property)	(c/kL)	($'000/100km)			($/ML)	($/property)		
		(79)	(80)	(81)	(82)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(99)	(100)	(101)	(102)	(103)	(104)	(105)	(106)	(107)
		2003/04				*2003/04*						*2003/04*		*2003/04*	*2003/04*		*2003/04*	*2003/04*				*2003/04*	*2003/04*	*2003/04*			*2003/04*	*2003/04*		
1	Albury	39	19	40	8		21	1	54	28	3	70	25	19	21	164	11	72	5	14	53	40	4	90		90	56	15	4	8
2	Armidale Dumaresq	153		10	25	12	51	2	11	83	30	130	14	40	61	272	3	8		1	7	10	14	139		139	228		58	25
3	Ballina (Reticulator)	31	55	2			30	17	8	2	30	88	12	30	51	288	3	26	20		6	2	9	114	62	52	5	2		
4	Balranald (Dual Supply)	130	11	47	26		58	10	93	27	26	67		23	85	197	32	25		12	13	47	20	161	31	130	93		1	26
5	Barraba	65	95	13	25	21	28	3	30	112	3	70	70	56	202	135	12	6	2	1	3	13	11	38	2	35	453	63	24	25
6	Bathurst Regional	93	76	5	29	12	74	6	7	93	11	68	38	20	176	132	1	13		3	10	5	14	257	56	201	174	50	14	29
7	Bega Valley (Unfiltered)	42	73	19		7	39	12	36	23	17	129	28	51	137	154	12	27	9	4	15	19	13	90	46	44	75	17	6	
8	Bellingen (Unfiltered)	32	37	21	8		30	3	29	33	4	82	58	37	36	202	7	18	2	3	13	21	8	76	33	43	86	19	6	8
9	Berrigan (Dual Supply)	7	228				51			177	7	45	60	26	204	136							13	76	76		444	177		
10	Bingara																													
11	Bland				**No WS**																									
12	Blayney				**No WS**																									
13	Bogan	160	58	14	38	33	37	1	25	121	52	202		26			3	30	5	8	17	14	5	95		95	159	54	29	38
14	Bombala	49	78	9	44	7	29	1	43	100		58		14	194	45	11	12	8	2	3	9	7	68	24	43	249	40	16	44
15	Boorowa	29	200	24			67	21	41	125		9	36	12			11	24	10		14	24	19	39	32	7	348	125		
16	Bourke (Dual Supply)	391		31			58	2	38	235	90	63	31	18	207	310	7	24		4	20	31	11	85		85	439		235	
17	Brewarrina	243	288	55	87		162	21	175	315		53		6	203	523	20	27	9	10	9	55	18	223		223	360	209	19	87
18	Australian Inland	388	43	117	76		191	22	170	241		148	104	47	700	175	32	248	0	77	171	117	36	541	7	535	449	40	125	76
19	Byron (Reticulator)	32	54		3	1	34	1		19	35	86	31	40	29	296							11	157	71	86	63	13	2	3
20	Cabonne	149	42	18	2	40	36	5	55	65	13	58	39	41	247	62	23	19	0	12	6	18	15	42		42	276	20	42	2
21	Carrathool (Groundwater)	196	48	201	2		96	7	307	23	12	74	12	11			40	30	2	8	20	201	13	22	5	17	30		21	2
22	Central Darling (Dual Supply)	533		43	76	12	154	1	121	363		4		2	524	131	52	22		14	8	43	66	182		182	1553		287	76
23	Central Tablelands	115	31	33	28	6	55	7	46	80	13	161	34	45	245	157	10	8		2	6	33	13	62		62	182	27	25	28
24	Cobar	195	8	5	50		92	64	17	85	2		11	2	135	135	2	5	2	2	2	5	12	164		164	112		35	50
24-A	Cobar WB (Bulk Supplier)																													
25	Coffs Harbour (Unfiltered)	50	50	10	10	14	43	7	20	16	21	64	33	35	82	135	7	62	23	6	33	10	16	171	33	137	57	5	1	10
26	Coolah	268		40			125	26	82	48	27	44	20	19	112	261	24	31		16	15	40	36	227		227	139		48	
27	Coolamon				**No WS**																									
28	Cooma-Monaro	91	127	2	14		55	16	44	82	37	38	54	20	233	56	9	53	49	2	2	2	12	156	11	145	174	45	22	14
29	Coonabarabran	51	58	38	35		54	13	45	53	17	186		37		367	9	29		4	24	38	11	176	93	83	106		18	35
30	Coonamble (Groundwater)	104		38			39	15	65		22	4		0	87	58	5	12		5	7	38	3	83		83				
31	Cootamundra (Reticulator)	19	37				50	2			3	35	11	13	49	198							14	154	98	57				
32	Copmanhurst (Unfiltered)				**No WS**																									
33	Corowa	81	48	12	20		19	1	23	101	18	38	63	10	196	65	2	39		18	21	12	2	67		67	100	45	35	20
34	Cowra	59	43	33	28		51	1	44	67		219	41	51	85	339	9	55	14		41	33	10	105		105	131	32	7	28
35	Crookwell	145	100	31	22	16	81	4	83	103	10	41	17	21	263	75	29	92		58	34	31	29	257		257	367	81		22
36	Culcairn (Groundwater)	139		29			14	90	63			65		15	156	77	15	35		19	16	29	3	48		48				
37	Deniliquin	33	53	9	85		53		18	101	9	122	2	15	141	163	2	54		25	29	9	6	106	106		119		16	85
38	Dubbo	84	93	22	36		52	5	32	113	33	98	15	17	223	125	5	68	1	21	46	22	8	183	12	171	170	54	23	36
39	Dungog (Reticulator)	68	42	8	2		32	7	14	23	43	48	40	24		353	4	9	4		5	8	9	65	38	27	62	5	17	2
40	Eurobodalla (Unfiltered)	32	88	26	1	2	67	17	41	2	19	150	3	51	162	138	13	60	14	8	38	26	22	159	107	51	7	1	0	1
41	Fish River WS (Unfiltered, Bulk Supplier)		63	10	3	11	40		15	9		38		17	99	1	7	163	59		104	10	18	359	359		39	6		3
42	Forbes	113	76	0	23		75	9	3	125		33	9	6	147	106	0	4	1	3	0	0	11	213	2	211	188	72	30	23
43	Gilgandra (Groundwater)	59	44	40	10		39	1	53	55	5	57	17	10	45	68	7	14	3	1	11	40	5	108		108	71	33	12	10

Table 13 - Water Supply - Benchmarking Cost Data (Operating, Management, Wholesale/retail)

	WATER UTILITY	OPERATING COST										MANAGEMENT COST			RETAIL/WHOLESALE		PUMPING COST						WATER MAIN COST				TREATMENT COST			
		Components (1)				Components (2)						Components			Components		Components						Components				Components			
		Maintenance	Operation	Energy	Chemicals	Dams & Weirs	Mains	Reservoirs	Pumping Stations	Water Treatment	Other	Administration	Engineering & Supervision	Total	Wholesale	Retail	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	Energy Cost	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Chemical
			($/property)					($/property)				($/property)		(c/kL)	($/property)		(c/kL)	($/pumping station)				($/property)	(c/kL)	($'000/100km)			($/ML)	($/property)		
		(79)	(80)	(81)	(82)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(99)	(100)	(101)	(102)	(103)	(104)	(105)	(106)	(107)
		2003/04						*2003/04*				*2003/04*		*2003/04*	*2003/04*		*2003/04*	*2003/04*				*2003/04*	*2003/04*	*2003/04*			*2003/04*	*2003/04*		
44	Glen Innes	93	1	28	21	57	0		30	56		87	27	41	142	116	11	76		5	71	28	0	1		1	202		35	21
45	Gloucester	323	115	13	42		72	5	43	231	143	29	37	16	302	257	11	8	2	3	2	13	18	196		196	578	102	87	42
46	Goldenfields (Bulk Supplier)	59	47	48	15		50	4	58	37	20	26	26	10	99	1	11	73	10	3	60	48	9	283	115	168	69	15	7	15
47	Goldenfields (Reticulator)	145	25	44			83	15	82		34	59	59	20			14	35	1	15	19	44	14	42	8	34				
48	Goldenfields (Combined)	136	61	71	15		94	12	101	37	38	57	57	21	194	202	19	50	4	10	35	71	18	78	24	54	69	15	7	15
49	Gosford	44	26	14	5	9	41	7	19	14		116	14	50	46	173	7	61	3	12	46	14	16	288	71	218	54	7	3	5
50	Goulburn	80	60	25	16	18	52	4	26	48	34	71	80	54	111	32	9	79		3	76	25	18	212		212	171	19	12	16
51	Grafton (Unfiltered)																													
52	Griffith	113	126	3	22		86	1	5	124	48	12	139	14	162	253	0	19	6		13	3	8	152		152	115	102		22
53	Gundagai	109	150		15		59			216		55	19	12	252	98							10	166	83	83	350	121	80	15
54	Gunnedah (Groundwater)		103	49			72	6	75			41	31	11	56	168	12	19	6		12	49	11	163	163					
55	Gunning (Groundwater)	60	48	3	6		75	9	18	6	9	9		3	38	76	6	2	1	1	0	3	26	147	53	94	21			6
56	Guyra	40	106	10	13	12	40		10	108		35	12	17	165	51	4	11			11	10	14	75		75	392	95		13
57	Harden (Reticulator)	127	20	1			95	30	3		20	29	23	9	22	421	0	1		1	0	1	16	83		83				
58	Hastings (Unfiltered)	50	124	14	4	6	19	14	35	11	107	65	17	33	82	191	14	54	14	17	22	14	8	67	16	51	44	4	3	4
58-A	Hawkesbury				**No WS**																									
59	Hay (Dual Supply)	92	62	35	20		50	2	59	89	9	67	21	29	202	68	19	25	3	7	15	35	16	73		73	289	48	21	20
60	Holbrook				**No WS**																									
61	Hume	99	238		2		74	7	22	66	170	33	50	17	433	83	5	12	10	2			15	84	51	32	137	62	1	2
62	Hunter Water													0																
63	Inverell	53	114	64	24		34	9	74	91	48	62	47	26	292	73	18	62		8	54	64	8	76		76	219	66		24
64	Jerilderie (Dual Supply)	333	5	40	5		155	2	61	155	9	28	37	24	215	233	22	26		9	17	40	56	165		165	560	5	145	5
65	Junee																													
66	Kempsey (Groundwater)	79	28	20	2	9	43	7	35	30	6	30	38	19	108	79	10	23	3	7	13	20	12	86	1	85	85	16	12	2
67	Kyogle	83	26	11	1		69	10	11	24	7	62	36	48	131	87	5	5			5	11	34	185		185	116	23		1
68	Lachlan	70	110	8	53		54	13	33	120	21	55	34	14	132	206	5	13	8	1	3	8	8	94		94	184	67		53
69	Leeton	213	35	1	29		111	5	14	140	8	79	8	9	219	146	1	10	4	5	1	1	12	295	4	291	148	22	89	29
70	Lismore (Reticulator)	56	10	3			44	1	7		17	44	14	21	3	249	3	19		10	9	3	16	180		180				
71	Lithgow	99		2	8		56	7	4	41		112	18	44	40	226	1	5		3	3	2	19	89		89	139		33	8
72	Lockhart				**No WS**																									
73	North Coast Water (Unfiltered)	42	50	9	8		31	4	12	19	44	103	25	30	12	226	3	15	0	3	12	9	7	31	1	30	43	5	6	8
74	Maclean				**No WS**																									
75	Manilla	88	104	12	9	3	60	12	29	100	9	182		36	79	316	6	31	17	1	13	12	12	171	3	168	196	66	26	9
76	Merriwa	244	5	35			143	7	84	50		57	80	24	253	169	14	12		7	5	35	25	318		318	87	5	45	
77	MidCoast (Manning - Unfiltered)																													
78	MidCoast (Great Lakes - Unfiltered)																													
79	MidCoast (Combined - Unfiltered)	173	26	20	18	9	95	32	41	48	12	25		8	118	144	12	52	2	25	25	20	29	293		293	143	15	15	18
80	Moree Plains (Groundwater)	142	60	2	22	0	19	2	42	97	65	149	12	34	193	193	9	71	5	63	3	2	4	61	59	1	208	28	48	22
81	Mudgee (Unfiltered)	137	11	28			95	3	77	1		134		33	109	202	19	65		41	23	28	23	188	22	165	3		1	
82	Mulwaree	497		43	12		228	25	94	148	57	4		2	234	33	38	23		13	11	43	93	351		351	600		135	12
83	Murray (Dual Supply)	163	42	22			59	4	40	124		51	49	25	218	109	10	26	12		14	22	14	96		96	302	23	101	
84	Murrumbidgee (Groundwater)	38	12	42		16	9	10	56				103	11			6	14		4	11	42	1	24		24				
85	Murrurundi	125	87	18	7	43	91	10	36	54	3	3	13	6	64	191	13	11	6		6	18	32	162		162	191	38	10	7
86	Muswellbrook	139	63	25	33		72	21	38	124	6	40	48	16	226	122	7	92	13	18	62	25	13	277	38	238	231	44	47	33

Table 13 - Water Supply - Benchmarking Cost Data (Operating, Management, Wholesale/retail)

	WATER UTILITY	OPERATING COST										MANAGEMENT COST			RETAIL/WHOLESALE		PUMPING COST						WATER MAIN COST				TREATMENT COST			
		Components (1)				Components (2)						Components			Components		Components						Components				Components			
		Maintenance	Operation	Energy	Chemicals	Dams & Weirs	Mains	Reservoirs	Pumping Stations	Water Treatment	Other	Administration	Engineering & Supervision	Total	Wholesale	Retail	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	Energy Cost	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Chemical
			($/property)					($/property)				($/property)		(c/kL)	($/property)		(c/kL)	($/pumping station)				($/property)	(c/kL)	($'000/100km)			($/ML)	($/property)		
		(79)	(80)	(81)	(82)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(99)	(100)	(101)	(102)	(103)	(104)	(105)	(106)	(107)
		2003/04						*2003/04*				*2003/04*		*2003/04*	*2003/04*		*2003/04*	*2003/04*				*2003/04*	*2003/04*	*2003/04*			*2003/04*	*2003/04*		
87	Nambucca (Groundwater)	55	28	18			25	6	30	10	30	64	22	28	75	112	10	89		35	54	18	8	82		82	33		10	
88	Narrabri (Groundwater)	56	15	36	2		38	3	56	6	6	24	42	7	104	72	6	117	5	36	76	36	4	119	5	114	6	3	1	2
89	Narrandera (Groundwater)	64	56	77	4		50	4	122	4	19	33	28	8	152	110	16	83	24	7	52	77	6	155	46	110	6			4
90	Narromine (Groundwater)	125	25	41		1	86	11	74	9	11	58	57	16			10	49		22	28	41	12	313	24	289	13	0	8	
91	Nundle (Groundwater)	241		32	19		37	5	46	204		9	28	9	99	230	11	10		3	7	32	9	44		44	473		185	19
92	Oberon (Reticulator)	88	64		23		54			107	14	18	32	8	199	150							9	202		202	176	50	34	23
93	Orange	71	67	15	15	28	58	2	30	50		75	30	31	175	98	9	218	90	20	108	15	17	198	47	151	148	28	7	15
94	Parkes	87	111	144	33	5	38	5	196	70	62	42	18	5	109	327	16	136	17	19	101	144	3	50	10	40	58	29	8	33
95	Parry (Groundwater)	95	99	21		16	57	9	73	60		32	21	17	129	140	24	44	22	10	13	21	19	106	13	93	196	35	25	
96	Pristine Waters (Unfiltered)	70	34	9	3		49	2	21	44		17	9	8	201	94	6	10		6	4	9	15	80		80	132	34	7	3
97	Queanbeyan (Reticulator)	73		1			64	7	1	2		41	48	35	3	253	1	6			6	1	25	399		399	6		2	
98	Quirindi (Groundwater)	106	5	35			23	1	75		47	58	7	15	74	138	17	25		14	12	35	5	60		60				
99	Richmond Valley	41	71	8	23		37	4	13	62	29	112	29	32	130	195	3	17	6		11	8	8	135		135	138	38	0	23
100	Riverina (Groundwater)	57	36	39	17		22	4	68	26	29	45	16	10	145	66	11	26	4	7	15	39	4	44	5	39	45	7	2	17
101	Rous (Bulk Supplier)	32	25	2	16	10	8	5	2	33	17	63	12	24	95	5	1	7	1		6	2	2	76	4	72	104	3	15	16
102	Rylstone	14	137	10	21	5	13	1	29	134		36	205	57	118	304	7	7	5		3	10	3	30		30	316	113		21
103	Scone (Unfiltered)	96	29	27	7		39	1	33	20	67	105	23	19	20	267	5	17		3	14	27	6	88	1	88	30	10	2	7
104	Severn (Unfiltered)	5	103	16	22		11	11	81	38	5	81	22	66	223	25	52	15	12		3	16	7	23	23		244	16		22
105	Shoalhaven	25	41	13	10	1	33	5	16	28	5	81	22	28	98	94	5	24	3	2	19	13	9	95	45	50	76	14	4	10
106	Singleton	63	118	15	6		53	1	33	94	22	36	56	18	179	115	6	36	6	14	17	15	10	199	100	99	186	64	24	6
107	Snowy River (Unfiltered)	26	68	34	5		27	4	73	23	5	58	12	11			11	28	10	5	13	34	4	74	48	26	36	15	3	5
108	Sydney Water													0																
109	Tallaganda (Unfiltered)	131	4	26	23		77	2	49	56		18	16	11			16					26	24	232		232	178	4	30	23
110	Tamworth	32	142	1	20	50	47	5	4	89		68	32	18	201	94	1	8		5	2	1	8	154	150	4	161	56	13	20
111	Temora				**No WS**																									
112	Tenterfield		144	12	20	12	47	5	22	85	5	112	61	59	140	209	7	21	10		12	12	16	141	141		289	65		20
113	Tumbarumba	69	68	13			61	36	17	14	22	84		20	128	105	4	6	1		4	13	14	104	87	17	32		14	
114	Tumut	165	35	15			24	6	31	123	30	82	11	16	123	184	5	12	2	5	6	15	4	65		65	209	28	95	
115	Tweed	54	32	16	7	11	15	2	21	25	35	94	19	32	98	124	6	29	5	3	22	16	4	67		67	70	16	2	7
116	Uralla	38	84	12	21		27	4	17	96	11	25	94	49	87	14	7	22	7		15	12	11	97		97	397	64	12	21
116-A	Urana				**No WS**																									
117	Wagga Wagga				**No WS**																									
118	Wakool	140	115	23	37		89	2	48	161	15	42	55	14			7	8	2	2	4	23	13	96	18	77	235	73	51	37
119	Walcha	88	104	42	19	22	40	5	64	123		68	25	34	260	87	24	18	3	3	12	42	15	66		66	453	71	33	19
120	Walgett (Dual Supply)	131	158	40	43	4	74	15	71	165	43	84	84	70	448	92	29	17	3	4	9	40	31	101	6	95	685	105	17	43
121	Warren (Dual Supply)	153		30	21		108	16	44	21	14	28	31	15	105	157	12	22		7	15	30	28	197		197	54			21
122	Weddin				**No WS**																									
123	Wellington	177	65	8	22		123	4	18	126		66	38	25	218	158	4	53		31	22	8	30	469	7	463	306	63	41	22
124	Wentworth (Dual Supply)	194	167	71		14	108	6	126	123	55	81	29	31	14	309	36	25	6	6	14	71	31	105	1	104	350	106	17	
125	Wingecarribee	31	22	19	12	1	17	9	20	34	1	74	6	27	117	46	7	32	1	2	30	19	6	49		49	115	14	8	12
126	Wyong	69	31	10	5	5	55	8	19	19	9	64	19	32	50	149	7	64	8	25	32	10	21	296	53	243	74	6	8	5
127	Yallaroi (Groundwater)	319		41			109	19	192	15	25		72	10	130	303	27					41	15	187		187	22		15	
128	Yarrowlumla (Groundwater)													0																
129	Yass Valley	79	75	8	20	5	45	8	24	78	22	87	16	35	228	57	8	68		45	23	8	15	121		121	265	53	5	20
130	Young (Reticulator)		66	1			41	4	1		20	6	12	4	20	230	0	2	1		2	1	10	144	144					

Table 13 - Water Supply - Benchmarking Cost Data (Operating, Management, Wholesale/retail)

	WATER UTILITY	OPERATING COST										MANAGEMENT COST			RETAIL/WHOLESALE		PUMPING COST					WATER MAIN COST				TREATMENT COST			
		Components (1)				Components (2)						Components			Components		Components					Components				Components			
		Maintenance	Operation	Energy	Chemicals	Dams & Weirs	Mains	Reservoirs	Pumping Stations	Water Treatment	Other	Administration	Engineering & Supervision	Total	Wholesale	Retail	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	Energy Cost	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Chemical
			($/property)						($/property)				($/property)		(c/kL)	($/property)	(c/kL)		($/pumping station)			($/property)	(c/kL)	($'000/100km)			($/ML)	($/property)		
		(79)	(80)	(81)	(82)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(99)	(100)	(101)	(102)	(103)	(104)	(105)	(106)	(107)
		2003/04							*2003/04*			*2003/04*		*2003/04*	*2003/04*		*2003/04*					*2003/04*	*2003/04*			*2003/04*			
131	Albury City	40	24		8		22	1	54	28	7	69	25		29	162		70	5	13				90		89		16	4	8
132	Clarence Valley																													
133	Coffs Harbour	50	50	10	10		43	7	20	16		64	33		82	135		62		6	33	10		171		137		5	1	10
134	Corowa	85	90		16		31	3	23	93	51	37	60		248	69		33		14				71		60		49	28	16
135	Glen Innes Severn	87	8	27	21		1		34	55		87	27		148	110		72			66	27		3						21
136	Goulburn Mulwaree	101		26	16		61	5	29	53	35	68			117	32		76		3	73	26		219		219			18	16
137	Greater Hume	114					52	39	38			45			328	81		21		8				70		38				
138	Gwydir																													
139	Liverpool Plains	104	40	29			38	4	72			47	12		91	141		31			12	29		81		76				
140	Mid Western Regional	113	36	24			79	3	67	28		114			111	222		53			19	24		156		138				
141	Palerang																													
142	Tamworth Regional	42		4			47	6	11	89		71			186	112		11		5	3	4		146		20			17	
143	Upper Hunter	123	33	27			62	3	42	29		84	31		63	241		16			12	27		135		134		13	10	
144	Upper Lachlan	125	88	24	19		80	6	68	81	10	34			211	75		71		45	26	24		232		220				19
145	Warrumbungle	131		39			80	17	59	51	20	133				328		29		9	21	39		195		136			29	

Table 14 - Sewerage - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION										ASSETS						WORKFORCE								
		Total No of Assessments				Connected Properties - Total		Residential Assessments	Connected Residential Properties	Population		Sewer Mains	Sewage Treatment Works	Pumping Stations	Properties Served per km of Main	Pumping Stations per 100km of Main	Capital Investment	Total Workforce	% Female	% Undergoing Training	Outsourcing			Injuries	Days Lost			
						(Ratio of Connected Properties to Assessments)	Connected Properties (1) x (2)	(Ratio of Residential Assessments to Total Assessments)	(Ratio of Residential Connections to Residential Assessments)	Permanent	Peak (% of Permanent)									(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)		Total (%)	Due to Injury (No.)	(%)	
		(1)				(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)		
		2000/01	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*
1	Albury	18,000	18,000	18,000	20,200	1.03	20,800	0.93	1.03	43,000	120	442	2	52	47.0	11.8	1.28	26	25	24				11	2	8	0
2	Armidale Dumaresq	7,300	7,400	7,390	7,550	0.98	7,400	0.93	0.98	23,000	100	226	1	1	32.7	0.4	0.1	16	11	38				1	1	3	0
3	Ballina	12,400	12,600	12,800	13,200	0.93	12,300	0.91	0.93	33,300		300	4	110	40.9	36.7	3.4	24	8	100				2	2	36	0
4	Balranald	770	770	770	800	0.95	760	0.87	0.95	2,000	110	38	2	12	20.1	31.7	1.0	1		100				1	8	18	5
5	Barraba	740	770	770	710	0.86	610	0.88	0.85	1,400	100	28	1	4	21.8	14.3		2	17	67				0	2	0	0
6	Bathurst Valley	11,100	11,200	11,400	11,400	1.08	12,400	0.92	1.08	30,800		338	1	15	36.6	4.4	2.7	9		100							
7	Bega Valley	10,200	10,200	10,200	10,300	0.97	10,000	0.93	0.98	23,700	130	293	6	54	34.2	18.4	3.4	42	14	100				4	2	20	0
8	Bellingen	2,800	2,800	2,860	2,930	0.95	2,800	0.93	0.95	7,000	110	73	3	27	38.2	37.2	0.2	5		100			5	2	3	51	3
9	Berrigan	2,900	2,900	2,910	3,010	0.98	3,000	0.85	0.98	6,200	110	102	4	41	28.9	40.2	0.2	6	8	33				1	1	30	1
10	Bingara	600	590	590	610	1.00	610	0.93	1.00	1,200	110	19	1	4	33.2	21.6		1	25	100	10	10	10	0	7	0	0
11	Bland	1,800	1,800	1,820	1,820	0.95	1,700	0.84	0.95	3,700	110	46	3	9	37.4	19.5	0.0	3		100				0	1	0	0
12	Blayney	1,200	1,300	1,240	1,360	1.03	1,400	0.93	1.03	3,500	110	61	1	6	22.8	9.8	2.8	2		100				0	0	0	0
13	Bogan	960	960	970	970	1.01	970	0.88	1.01	2,500		20	1	4	47.8	19.6		4	25	25							
14	Bombala	780	790	790	790	0.95	750	0.86	0.95	1,800	100	34	2	5	21.8	14.6		2	11	100				0	2	0	0
15	Boorowa	560	560	560	560	0.94	530	0.89	0.94	1,200	100	20	1	2	27.0	10.2		2						0	3	0	0
16	Bourke	1,700	1,700	1,700	1,700	0.75	1,300	0.70	0.75	3,500		34	1	7	37.5	20.6		3		100				0	1	0	0
17	Brewarrina	560	560	560	540	0.86	470	0.88	0.85	1,700	110	16	3	8	28.7	49.0	0.2	2		100				0	1	0	0
18	Australian Inland	9,500	9,500	9,540	9,410	1.01	9,500	0.93	1.01	22,000	100	215	2	11	44.2	5.1		7		100				0	2	0	0
19	Byron	10,000	10,000	10,000	10,000	0.96	9,600	0.89	0.96	28,000	180	237	6	81	40.6	34.2	7.4	22	14	36				8	1	46	1
20	Cabonne	2,400	2,400	2,440	2,440	0.92	2,200	0.90	0.92	3,700	100	55	3	10	40.7	18.1	0.1	4		71				0	1	0	0
21	Carrathool	750	880	880	880	0.95	840	0.86	0.95	1,900	100	20	3	12	42.9	61.4	0.0	2		100				0	2	0	0
22	Central Darling	360	360	360	360	0.95	340	0.88	0.95	820	100	13	1	4	25.9	30.3	0.0	1							0		
23	Central Tablelands	**No SGE**																									
24	Cobar	1,800	1,700	1,750	1,750	0.95	1,700	0.90	0.95	4,500	110	72	1	4	23.1	5.6		7	14	86				0	0	0	0
24-A	Cobar WB	**No SGE**																									
25	Coffs Harbour	19,900	20,400	20,900	21,500	0.93	20,000	0.94	0.93	52,100	130	562	4	102	35.5	18.1	27.5	28		100	33	48	19				
26	Coolah	810	810	810	810	0.96	780	0.91	0.96	1,800	120	31	2	1	25.6	3.3	0.0	2		50				0	2	3	0
27	Coolamon	860	860	850	850	0.95	810	0.88	0.95	2,200		32	2	6	25.3	18.8				100							
28	Cooma-Monaro	3,300	3,300	3,260	3,210	0.95	3,000	0.89	0.95	7,500	130	228	2	7	13.4	3.1	0.0	9		100				0	4	0	0
29	Coonabarabran	1,500	1,500	1,540	1,540	1.00	1,500	0.86	1.00	3,600	130	90	3	8	17.1	8.9		4		75			5	0	0	0	0
30	Coonamble	1,500	1,500	1,570	1,530	0.87	1,300	0.86	0.85	4,200	100	51	2	12	26.3	23.8		4	3	100				2	2	3	0
31	Cootamundra	2,700	2,600	2,600	2,680	0.98	2,600	0.89	0.98	7,000	110	52	1	2	50.4	3.8		3		100				0	1	0	0
32	Copmanhurst	450	460	480	480	0.95	460	0.89	0.95	1,300		17	3	5	26.3	28.7	0.1	1						0	0	0	0
33	Corowa	3,300	3,400	3,460	3,440	0.95	3,300	0.91	0.95	6,900	160	80	2	46	40.9	57.5	0.1	5		78			10	0	0	0	0
34	Cowra	3,500	3,500	3,470	3,570	0.95	3,400	0.91	0.95	8,600	100	95	1	7	35.7	7.4	0.1	2		100				0	3	0	0
35	Crookwell	1,100	1,000	1,020	1,020	1.02	1,000	0.85	1.01	2,300	110	33	1	6	31.5	18.2	0.0	2						0		0	0
36	Culcairn	1,300	1,300	1,280	1,280	1.02	1,300	0.89	1.02	2,900	110	36	3	10	36.7	28.1		1		100			25	0	0	0	0
37	Deniliquin	3,400	3,100	3,050	3,050	0.96	2,900	0.87	0.92	8,000	150	67	1	23	43.7	34.3	0.1	4		100				0	4	0	0
38	Dubbo	11,900	12,100	12,300	12,400	1.11	13,800	0.91	1.12	31,400	110	331	2	7	41.6	2.1	7.0	15	7	100				0	1	0	0
39	Dungog	1,100	1,100	1,100	1,100	0.95	1,000	0.90	0.95	3,200	100	30	1	4	35.3	13.5	0.2	2					15	1	4	8	1
40	Eurobodalla	16,200	16,600	16,800	17,600	0.94	16,500	0.95	0.94	35,000	300	449	5	121	36.8	26.9	10.9	25		100	12	16	5	2	2		
41	Fish River WS	**No SGE**																									
42	Forbes	3,500	3,200	3,080	3,200	1.00	3,200	0.92	1.00	7,600	100	119	1	16	26.9	13.4	0.2	5	11	89		5	5	1	2	1	0
43	Gilgandra	1,300	1,400	1,360	1,360	0.98	1,300	0.90	0.98	2,900	100	34	1	13	39.1	38.2	0.1	2		100		5	20	0	1	0	0

Table 14 - Sewerage - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION										ASSETS						WORKFORCE									
		Total No of Assessments				Connected Properties - Total		Residential Assessments	Connected Residential Properties	Population		Sewer Mains	Sewage Treatment Works	Pumping Stations	Properties Served per km of Main	Pumping Stations per 100km of Main	Capital Investment	Total Workforce	% Female	% Undergoing Training	Outsourcing			Injuries	Days Lost			
						(Ratio of Connected Properties to Assessments)	Connected Properties (1) x (2)	(Ratio of Residential Assessments to Total Assessments)	(Ratio of Residential Connections to Residential Assessments)	Permanent	Peak (% of Permanent)									(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)		Total (%)	Due to Injury (No.)	(%)	
		(1)				(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)		
		2000/01	2001/02	2002/03	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04
44	Glen Innes	2,700	2,900	2,900	2,900	0.91	2,600	0.84	0.91	6,000	120	79	1	3	33.5	3.8	0.1	5		100					3		
45	Gloucester	1,600	1,400	1,370	1,370	0.95	1,300	0.87	0.95	2,600	130	42	1	7	31.0	16.7	0.0	3		67				0	0	0	0
46	Goldenfields (Bulk)	**No SGE**																									
47	Goldenfields (Retic)	**No SGE**																									
48	Goldenfields (Comb)	**No SGE**																									
49	Gosford	60,500	61,500	61,600	65,400	0.98	64,000	0.96	0.98	152,200		1,390	2	184	46.0	13.2	9.0	85	1				20	16	1	68	0
50	Goulburn	8,300	8,400	8,460	9,150	1.03	9,400	0.89	1.03	22,500		222	1	12	42.4	5.4	3.6	15	7	100	3			3	2	17	0
51	Grafton	6,600	6,700	6,990	6,990	1.13	7,900	0.89	1.13	17,500	100	172	3	35	45.8	20.3		16						2	2	15	0
52	Griffith	8,500	8,500	8,500	8,500	0.85	7,200	0.78	0.84	24,000		257	3	24	28.1	9.3	1.4	20	5	70				1	1	0	0
53	Gundagai	940	950	950	860	1.01	870	0.83	1.01	2,400	130	73	1	4	11.9	5.5	0.0	2		67				0	0	0	0
54	Gunnedah	3,600	3,600	3,640	3,850	1.03	4,000	0.87	1.03	9,600		96	2	2	41.5	2.1	0.1	6		100	10	5	5	0	1	0	0
55	Gunning	230	230	240	240	0.95	220	0.90	0.95	650		13	1	1	17.2	7.7		0		100			50	***0***	3	0	***0***
56	Guyra	760	770	760	770	0.95	730	0.88	0.95	2,200	100	36	1	2	20.2	5.5	0.2	2	33	100	2	2	2	0	1	0	0
57	Harden	980	980	980	980	0.96	940	0.88	0.95	2,000		45	1		20.9	0.0	0.1	2		100				0	1	0	0
58	Hastings	22,700	23,800	24,400	25,300	0.95	24,000	0.93	0.95	64,500	120		6				3.6	36	6	100				2	2	14	0
58-A	Hawkesbury		7,300	7,080	7,440	0.98	7,300	0.89	0.99	24,000		169	2	24	43.0	14.2	3.5	12		100				2	2	2	0
59	Hay	1,300	1,300	1,250	1,250	0.98	1,200	0.87	0.98	2,900		37	1	7	33.0	18.8	0.3	2		100			40				
60	Holbrook	690	690	690	690	0.95	650	0.91	0.95	1,700		17	1	2	37.6	11.5		2		100				0	0	0	0
61	Hume	1,300	1,300	1,310	1,350	0.95	1,300	0.86	0.95	3,600	140	55	5	18	23.4	32.7	0.2	0						0	0	0	0
62	Hunter Water	188,000	188,000	192,000	196,000	1.00	196,000	0.95	1.00	477,000		4,370	17	373	44.9	8.5											
63	Inverell	4,400	4,500	4,500	4,740	0.97	4,600	0.90	0.97	11,200	110	126	4	21	36.5	16.7	0.4	10	8	30			10	0	2	0	0
64	Jerilderie	420	420	440	440	0.95	410	0.89	0.95	950		9	1	5	48.6	58.8		1		100							
65	Junee	1,400	1,500	1,570	1,570	0.95	1,500	0.92	0.95	4,000		91	1		16.4	0.0	0.1	2		100		10	15	1	0	7	1
66	Kempsey	8,200	8,000	7,990	8,110	1.04	8,400	0.91	1.03	24,300	110	245	6	78	34.4	31.8	5.9	20	5	100	5		5	5	2	2	0
67	Kyogle	1,600	1,600	1,570	1,570	0.95	1,500	0.94	0.95	3,600	120	37	3	8	39.7	21.3	0.4	5		100	5	5		1	2	5	0
68	Lachlan	2,000	2,000	2,050	2,040	1.03	2,100	0.87	1.03	5,100	110	66	3	20	32.0	30.4	0.0	2		100				0	0	0	0
69	Leeton	2,800	2,800	3,050	3,130	0.94	2,900	0.88	0.94	8,300	110	83	3	30	35.5	36.1	0.5	5	10	80				2	2	2	0
70	Lismore	11,100	11,100	11,200	11,100	1.05	11,700	0.90	1.06	29,700		330	3	33	35.5	10.0	3.5	14	5	63		5	5	7	3	15	0
71	Lithgow	7,800	7,800	7,800	7,800	0.98	7,600	0.91	0.98	20,000	100	364	3	32	21.0	8.8		12						0	0	0	0
72	Lockhart	700	730	780	810	0.95	770	0.88	0.95	1,800		25	6	6	30.2	23.6		1		71				2	4	10	2
73	North Coast Water	**No SGE**																									
74	Maclean	4,800	4,800	5,330	5,070	0.91	4,600	0.94	0.91	12,200	160	111	4	42	41.4	37.7	0.6	8		88				2	2	9	0
75	Manilla	1,100	1,100	1,030	1,150	0.95	1,100	0.90	0.95	2,300		29	1	3	38.0	10.5	0.0	2		100				0	0	0	0
76	Merriwa	480	480	480	500	0.94	470	0.86	0.94	940	130	17	1	1	27.7	5.9		1		100				0	5	0	0
77	MidCoast (Manning)	15,000	15,400	15,400	15,400	0.96		0.98	0.96																		
78	MidCoast (Great Lakes)	13,200	13,500	13,500	13,500	0.96		0.90	0.96																		
79	MidCoast (Combined)	28,200	28,900	30,600	30,600	0.96	29,400	0.96	0.96	69,000	120	873	14	196	33.6	22.5		37	19	100				1	2	2	0
80	Moree Plains	4,300	4,300	4,280	4,280	0.97	4,200	0.88	0.96	10,400		85	2	26	48.9	30.6		7	29	100	5	10	20	3	1	7	0
81	Mudgee	4,500	4,500	4,580	4,700	1.02	4,800	0.90	1.04	10,400	190	143	2	8	33.5	5.6	0.3	10	10	100	5		5	1	2	120	3
82	Mulwaree	290	300	320	320	0.95	310	0.90	0.95	580		8	1	6	40.1	78.7		1						0	0	0	0
83	Murray	2,000	2,000	2,190	2,190	0.95	2,100	0.88	0.95	5,300	220	91	2	36	22.8	39.4		4	3	26				1	2	0	0
84	Murrumbidgee	670	670	670	690	1.03	710	0.93	1.05	1,700		21	2	12	33.9	57.1	0.0	2						0	0	0	0
85	Murrurundi	510	510	600	600	0.95	570	0.79	0.94	1,000	120	14	1	2	41.8	14.6	0.0	1		100			10	0	0	0	0
86	Muswellbrook	4,700	4,800	4,730	4,810	0.95	4,600	0.92	0.96	16,800		136	2	11	33.8	8.1	0.8	4	12	100				2	4	3	0

Table 14 - Sewerage - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION										ASSETS						WORKFORCE									
		Total No of Assessments				Connected Properties - Total		Residential Assessments	Connected Residential Properties	Population		Sewer Mains	Sewage Treatment Works	Pumping Stations	Properties Served per km of Main	Pumping Stations per 100km of Main	Capital Investment	Total Workforce	% Female	% Undergoing Training	Outsourcing			Injuries	Days Lost		
						(Ratio of Connected Properties to Assessments)	Connected Properties (1) x (2)	(Ratio of Residential Assessments to Total Assessments)	(Ratio of Residential Connections to Residential Assessments)	Permanent	Peak (% of Permanent)										(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)		Total (%)	Due to Injury (No.)	(%)
		(1)				(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	
		2000/01	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*
87	Nambucca	5,800	6,000	6,050	6,050	0.95	5,700	0.93	0.95	13,800	130	150	4	49	38.3	32.7	0.4	9	6	11	20	15	20	0	1	0	0
88	Narrabri	3,800	3,700	3,700	3,700	0.98	3,600	0.93	0.98	10,200	100	97	3	22	37.6	22.8		3	10	100		***3***		***3***	***1***	***16***	***1***
89	Narrandera	1,800	1,800	1,840	1,850	0.92	1,700	0.89	0.92	4,300	100	36	1	4	47.7	11.2	0.2	2	5	100	5	5	10	1	3	0	0
90	Narromine	1,900	1,900	2,080	2,190	0.95	2,100	0.90	0.95	4,800			2	13			1.2	2		100			35				
91	Nundle	**No SGE**																									
92	Oberon	1,100	1,000	1,160	1,170	1.02	1,200	0.86	1.02	3,000	130	35	1	3	34.2	8.6	0.0	3		100				0	1	0	0
93	Orange	13,400	13,600	13,700	14,000	1.01	14,100	0.92	1.01	34,900	100	386	2	11	36.6	2.8	0.4	15							3	13	0
94	Parkes	4,500	4,500	4,550	4,850	0.95	4,600	0.92	0.95	11,300	100	95	2	2	48.5	2.1	0.3	3		100				0	0	0	0
95	Parry	1,200	1,200	1,190	1,210	0.95	1,200	0.96	0.95	4,100	100	19	1	3	61.3	16.0	0.0	1		100				0	2	0	0
96	Pristine Waters	570	570	570	570	0.95	540	0.90	0.95	1,500	100	19	2	5	29.3	27.0		1		100				0	0	0	0
97	Queanbeyan	13,400	13,900	14,400	15,400	1.03	15,800	0.93	1.04	34,100		287	1	13	55.2	4.5	1.1	14	14			10	50	0	0	0	0
98	Quirindi	1,200	1,200	1,180	1,180	0.99	1,200	0.87	0.99	3,000	100	37	1	8	32.0	21.8	0.1	2	9	91				0	1	0	0
99	Richmond Valley	6,200	6,300	6,340	6,400	0.95	6,100	0.93	0.95	16,700	100	172	4	32	35.4	18.6	1.1	11	5	36					0		
100	Riverina	**No SGE**																									
101	Rous	**No SGE**																									
102	Rylstone	1,000	960	960	1,060	0.99	1,000	0.91	0.99	2,700		41	2	4	25.4	9.7		5		100				0	6	0	0
103	Scone	2,600	2,700	2,640	2,650	1.01	2,700	0.93	1.02	7,000	120	85	2	7	31.6	8.3	0.3	4		100							
104	Severn	210	220	210	220	0.95	210	0.80	0.95	400	100	7	1	2	28.9	28.1	0.0	0	25	100				0	0	0	0
105	Shoalhaven	37,700	38,200	39,300	39,800	0.90	35,800	0.95	0.91	84,000	330	1,010	10	203	35.5	20.1	11.0	57	8	95	3	16	10	3	3	173	1
106	Singleton	4,900	4,900	4,920	4,930	0.95	4,700	0.92	0.95	14,000	100	165	1	14	28.5	8.5	1.6	5		40				0	3	0	0
107	Snowy River	2,300	2,300	2,300	2,300	1.43	3,300	0.91	1.43	3,300	480	75	4	17	43.9	22.7	0.3	8	7	27					1		
108	Sydney Water	#######	#######	#######	1,611,000	1.00	1,611,000	0.93	1.00	4,061,000		23,010	31	656	70.0	2.9											
109	Tallaganda	540	540	560	570	0.86	490	0.86	0.86	1,000		14	1	3	36.4	22.2		1		100				0	1	0	0
110	Tamworth	14,800	14,700	14,100	14,500	1.00	14,500	0.91	1.00	36,400	190	392	2	12	36.9	3.1	2.4	22	5	100	5	5	5		2	26	0
111	Temora	2,000	2,000	1,950	1,890	1.00	1,900	0.93	1.00	4,600	120	17	1	2	112.9	12.0	0.2	1		100				0	0	0	0
112	Tenterfield	1,500	1,500	1,530	1,530	0.95	1,400	0.90	0.95	3,400		60	2	4	24.0	6.6	0.2	2	100	100		5	5	0	0	0	0
113	Tumbarumba	950	950	930	940	0.95	900	0.94	0.95	2,000	180	42	2	1	21.4	2.4	0.1	5	20	60			15	0	4	0	0
114	Tumut	3,810	3,720	3,770	3,770	0.95	3,600	0.93	0.95	8,300	120	125	4	14	28.8	11.2	0.1	3		100				0	0	0	0
115	Tweed	25,600	26,200	27,000	27,400	0.91	25,000	0.95	0.93	66,200	120	582	8	174	42.9	29.9	5.4	43	1	100	5	21	12	4	3	120	1
116	Uralla	990	980	990	990	1.00	990	0.89	1.01	2,500	100	28	1	4	35.1	14.1	0.1	1		100		38	35	0	0	0	0
116-A	Urana	300	300	300	300	0.95	290	0.91	0.95	720	190	15	2	8	18.8	52.7		1		100			5	0	2	0	0
117	Wagga Wagga	20,800	21,200	21,200	21,200	1.04	22,100	0.93	1.05	58,100	100	538	5	36	41.1	6.7	6.1										
118	Wakool	1,100	960	970	970	0.95	920	0.79	0.95	1,900		51	3	14	18.1	27.5	0.5	1		83				0	0	0	0
119	Walcha	760	770	760	760	1.01	760	0.80	1.01	1,600	110	29	1	1	26.8	3.5		2						0	1	0	0
120	Walgett	1,600	1,700	1,690	1,690	0.85	1,400	0.87	0.85	6,300	100	52	3	9	27.5	17.3		1		100				1	2	56	15
121	Warren	850	890	890	890	0.92	820	0.90	0.92	2,200	110	17	2	8	49.5	48.5		2	10	100				0	2	0	0
122	Weddin	1,000	1,000	950	1,010	0.94	950	0.86	0.93	2,000	100	28	1		33.6	0.0	0.0	1		100				0	0	0	0
123	Wellington	2,200	2,200	2,560	2,410	0.98	2,400	0.90	0.98	5,700	110	42	1	11	56.1	26.2	0.2	4	7	100				0	2	0	0
124	Wentworth	1,500	1,500	1,540	1,560	0.95	1,500	0.88	0.95	3,900	100	76	5	25	19.5	32.9	0.0	3	33	100		5	5	0	1	0	0
125	Wingecarribee	11,300	11,300	13,100	13,700	0.95	13,000	0.93	0.96	38,800	100	443	5	60	29.3	13.6	2.1	27	6	67		10	32	1	2	12	0
126	Wyong	52,000	54,100	55,300	56,600	0.98	55,300	0.94	0.98	142,000	180	1,140	6	143	48.4	12.5	9.4	88									
127	Yallaroi	580	590	590	590	1.01	600	0.89	1.01	1,400	110	22	1	4	27.0	18.0	0.1	1		100	10	10	10	0	8	0	0
128	Yarrowlumla	900	990	1,010	1,010	0.98	990	0.95	0.97	2,000		35	2	10	28.0	28.4		2		100			5	0	2	0	0
129	Yass Valley	2,000	2,000	1,990	2,030	0.98	2,000	0.91	0.98	5,200	120	70	2	7	28.4	10.0	0.2	3		33			10	0	3	0	0
130	Young	2,900	3,100	3,160	3,250	1.04	3,400	0.88	1.04	7,000	130	101	1	5	33.4	5.0	0.0	4	8	100	10	30	35	6	9	12	1

Table 14 - Sewerage - Utility Characteristics

	WATER UTILITY	ASSESSMENTS - CONNECTIONS - POPULATION										ASSETS						WORKFORCE									
		Total No of Assessments				Connected Properties - Total		Residential Assessments	Connected Residential Properties	Population		Sewer Mains	Sewage Treatment Works	Pumping Stations	Properties Served per km of Main	Pumping Stations per 100km of Main	Capital Investment	Total Workforce	% Female	% Undergoing Training	Outsourcing			Injuries	Days Lost			
						(Ratio of Connected Properties to Assessments)	Connected Properties (1) x (2)	(Ratio of Residential Assessments to Total Assessments)	(Ratio of Residential Connections to Residential Assessments)	Permanent	Peak (% of Permanent)	(km)	(No.)	(No.)	(3) / (8)	(10) / [(8) x 100]	($'M)	(No.)	(%)	(2 or more days per year)	(% of Management Cost)	(% of Operation Cost)	(% of Maintenance Cost)	(No.)	Total (%)	Due to Injury (No.)	Due to Injury (%)	
		(1)				(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)		
		2000/01	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*	*2003/04*
131	Albury City	18,039	18,039	18,039	20,241		20,839			43,108		444	3	53	47.0	11.8	1.3	26						11	2	8	0
132	Clarence Valley	12,107	12,217	13,057	12,797		13,203			31,675		309	12	84	42.7	27.2		26						4	2	24	0
133	Coffs Harbour	20,214	20,714	21,214	21,814		20,297			52,925		572	4	105	35.5	18.3		29		100							
134	Corowa	4,197	4,297	4,364	4,372		4,197			9,384		118	3	58	35.6	49.5	0.2	5						0	0	0	0
135	Glen Innes Severn	2,910	3,120	3,110	3,120		2,810			6,400		86	4	5	32.7	5.8	0.1	5		100					3		
136	Goulburn Mulwaree	8,590	8,700	8,780	9,470		9,710			23,080		230	2	18	42.3	7.8		16						3	2	17	0
137	Greater Hume	2,354	2,354	2,337	2,348		2,314			5,608		68	7	17	33.8	24.9		3						0	0	0	0
138	Gwydir	1,180	1,180	1,180	1,200		1,210			2,600		41	2	8	29.7	19.7		2		100	10	10	10	0	8	0	0
139	Liverpool Plains	1,962	1,962	1,955	1,966		1,974			5,455		50	1	10	39.7	20.2	0.1	3		94				0	1	0	0
140	Mid Western Regional	5,500	5,460	5,540	5,760		5,800			13,100		184	4	12	31.5	6.5		15		100				1	3	120	3
141	Palerang	1,440	1,530	1,570	1,580		1,480			3,000		49	3	13	30.4	26.7		3		100				0	2	0	0
142	Tamworth Regional	17,180	17,110	16,436	16,905		16,750			41,945		457	5	20	36.6	4.5		25		100					2	26	0
143	Upper Hunter	3,488	3,588	3,600	3,630		3,626			8,740		113	2	10	32.1	8.5		5		100							
144	Upper Lachlan	1,330	1,230	1,260	1,260		1,220			2,950		46	4	7	26.6	15.2		2						0		0	0
145	Warrumbungle	2,310	2,310	2,350	2,350		2,280			5,400		121	5	9	18.9	7.5		6		67				0	1	3	0

Table 15 - Sewerage - Asset Management, Resource Management

	WATER UTILITY	ASSET MANAGEMENT																RESOURCE MANAGEMENT																	
		Infiltration			Chokes & Collapses			Overflows			Interruptions to Service			Rehabilitations		Renewals		Total Maintenance Cost	Total Vol of Sewage Collected			Percentage of Sewage Treated	Percentage of Total Sewage Collected					Vol of Sewage Treated per Property			Biosolids Reused			% Effluent Reclaimed		
		(ML per 100km of Main)			(No. per 100 km of Main)			(No. per 100 km of Main)			(No. per '000 properties)			(% of Total Length)	(Service Connections %)	($'000 per 100 km of Main)	(% of CRC)	($'000 per 100 km of Main)	(ML)			(%)	Infiltration /inflow	Residential	Non-Residential	Trade Waste	Other	(kL/property)			(%)			(%)		
		(23)			(24)			(25)			(26)			(27)	(28)	(29)	(30)	(31)	(32)			(33)	(34)	(35)	(36)	(37)	(38)	(39)			(40)			(41)		
		2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04			2003/04	2003/04	2003/04	2001/02	2002/03	2003/04	2003/04	03/04	03/04	03/04	03/04	03/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04
1	Albury	0.2	1.0		78	83	187	11	22	37				0.2	0.9	118	0.2	300	4,960	4,700	5,060	100		70	28	2		259	255	244				87	100	97
2	Armidale Dumaresq					67	78		15	8					0.4		0.1	333	1,790	1,790	1,750	100				19	81	234	247	236	100	100	100		73	60
3	Ballina				5	24	14	5	2	1		1			0.1	439		440	3,720	3,860	3,650	100						304	325	297					8	9
4	Balranald		0.0		21	18	11			0		10						***127***	228	228	250	100	1					109	311	329						
5	Barraba				182	86	179			0				1.1	0.2			354	125	125	133	100						202	190	218						100
6	Bathurst Regional	10.8			10	12	20	6	3	2	12	13	12	0.3	0.7	298		180	3,200	3,200	3,310	100						283	258	268	100	100	100			
7	Bega Valley				39	32	28		26	23				0.8	0.1	278		205	1,870	2,010	1,950	100						206	203	194					29	30
8	Bellingen	1.3	1.3		32	39	21			19				0.0	0.1	259		242	639	639	748	100						247	235	269	38					
9	Berrigan					20	22			0	2	1	1		0.3	25			315	315	***315***	100						173	171	163				15	16	18
10	Bingara			0.6	33	59	22	22	11	11	3	3	7	0.2					320	39	55	95	22	60	18			543	63	86						
11	Bland				98	81	141			26			2		0.1	9		520	289	289	265	100						170	201	153				60	81	25
12	Blayney				65	49	29			0						75			211	211	258	100		86	6	9		186	165	185				39	87	80
13	Bogan					5												182	225	225	281	100						285	468	289						
14	Bombala	0.8	0.8	0.8	70	32	44	61		0		21	13			12		47	177	184	170	100	16	68	13	4		236	247	228				17	20	21
15	Boorowa				72	31	66			0	38							148	110	88	90	100						179	192	170						
16	Bourke									0					0.5			***791***	450		240	100						353	353	188					18	100
17	Brewarrina				25	25	12	6		0								423	210	210	180	100						423	446	385				76	74	89
18	Australian Inland				154	148	109	10	5	22				0.5	0.1			534	1,330	1,330	1,360	100						161	138	143	1	1		41	61	66
19	Byron		1.7	2.0	55	9	15	1	8	2		6	10	0.4		227		354	2,660	2,660	2,940	100	16	84				277	277	306	100	100	100	6	11	20
20	Cabonne				26	66	38	5		0								125	311	286	292	100						139	127	130					44	15
21	Carrathool				5	10	51			0	7	1	2					583	72	72	107	100						86	86	128						1
22	Central Darling																	295	100	100	***100***	100						292	292	292						
23	Central Tablelands		No SGE																							0										
24	Cobar		0.0	0.02	23		1	2		0	6							386	340	340	466	100						205	421	280					70	21
24-A	Cobar WB		No SGE																																	
25	Coffs Harbour	0.9	0.9	0.7	58	88	82	58	53	48						266		163	5,880	5,880	5,850	100	7	69	22	2		306	303	293				2	7	8
26	Coolah	2.3	2.3	2.0	31	23	33			0			6	0.3	0.5			410	223	223	240	100	25	75				231	231	308				56	100	92
27	Coolamon				16	22	22											82	46	46	72	100		64			36	226	229	89				25	28	71
28	Cooma-Monaro				96	63	49	96	62	155			116	0.0	0.1	6	0.3	137	574	574	479	100						227	185	157	100	100	100		7	
29	Coonabarabran						74			0		50	69					61	352		351	100						228	227	228				15		20
30	Coonamble		0.0		20	20	16			0					0.2			234	263	271	270	100		99	1			202	199	204					57	89
31	Cootamundra		0.4		122	74	162			0								162	917	507	630	100		99		1		365	363	240						37
32	Copmanhurst				43	52	11			0								534	91	91	100	99						201	199	218		100	100		0	
33	Corowa				84	21	46		9	10					0.0	24		319	691	691	733	100		37			63	250	210	224	85			70	64	63
34	Cowra				6	21	11	6	84	89	1	3	1	0.5	0.3	98		***120***	821	736	772	100						249	223	228						
35	Crookwell	1.7	0.6	0.5			73			0								164	223	223	247	100	6	77	16	1		306	215	238						
36	Culcairn				31	14	11	3	6	6								115	234	234	235	100		92	8			222	180	180		100	100	6	45	44
37	Deniliquin			1.5	279	137	30			0			20	1.8	0.0	1	0.2	748	1,030	1,030	794	100	13	62	4	20	1	362	353	271				93	89	79
38	Dubbo	0.8	1.0	0.7	55	75	64	9	12	25	14	18	15	0.4	0.5	216	0.3	192	3,250	4,290	2,800	100	8	76	11	5		243	314	204	100	100	100	53	50	58
39	Dungog				10	186	267	55	69	132		394	201		0.2	111		267	289	289	234	100						267	277	224				61	90	93
40	Eurobodalla	0.4	0.4	6.2	36	51	6	2	1	6			0	0.5	0.0	281		138	2,930	2,930	2,810	100						214	185	170	12	12		15	50	8
41	Fish River WS		No SGE																							0										
42	Forbes	1.3	0.3	0.3	75	94	82	4	2	5	126	166	238	1.2	0.2	14		278	951	702	726	99	4	84	7	4	1	283	228	225					1	1
43	Gilgandra	1.8	1.4	1.2	64	39	9	6	6	6	45	15	15		0.4			56	862	298	313	100	13	75	11	0	1	635	218	236		10	2		100	100

Table 15 - Sewerage - Asset Management, Resource Management

	WATER UTILITY	ASSET MANAGEMENT																	RESOURCE MANAGEMENT																
		Infiltration			Chokes & Collapses			Overflows			Interruptions to Service			Rehabilitations		Renewals		Total Maintenance Cost	Total Vol of Sewage Collected			Percentage of Sewage Treated	Percentage of Total Sewage Collected					Vol of Sewage Treated per Property			Biosolids Reused			% Effluent Reclaimed		
		(ML per 100km of Main)			(No. per 100 km of Main)			(No. per 100 km of Main)			(No. per '000 properties)			(% of Total Length)	(Service Connections %)	($'000 per 100 km of Main)	(% of CRC)	($'000 per 100 km of Main)	(ML)			(%)	Infiltration /inflow	Residential	Non-Residential	Trade Waste	Other	(kL/property)			(%)			(%)		
		(23)			(24)			(25)			(26)			(27)	(28)	(29)	(30)	(31)	(32)			(33)	(34)	(35)	(36)	(37)	(38)	(39)			(40)			(41)		
		2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04			2003/04	2003/04	2003/04	2001/02	2002/03	2003/04	2003/04	03/04	03/04	03/04	03/04	03/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04
44	Glen Innes				8	13	19	1	8	9						27	0.0	5	377	377	610	100						208	143	231	60	60	100			
45	Gloucester	0.2		0.5	24	17	24		2	17						148		398	216	216	214	100	9				91	139	166	164	100	100	100			
46	Goldenfields (Bulk)		No SGE																								0									
47	Goldenfields (Retic)		No SGE																																	
48	Goldenfields (Comb)		No SGE																								0									
49	Gosford	0.9	1.0	1.2	32	29	43	6	38	58				0.0		106		306	14,650	14,650	15,210	100	11	73	5	11		254	243	238	100	100	100			1
50	Goulburn	1.2	0.6	1.4	56	38	185	44	31	5			1,937			90		154	1,870	1,870	1,770	100	17	48	12	19	4	267	215	188	100	100	100	62	100	100
51	Grafton				39	48	20	21	29	35									1,850	1,850	1,590	100						283	234	201				1	6	8
52	Griffith	1.2	1.3	1.2		38	165		17	12				0.8	0.5	68		4	2,940	2,940	2,430	100	12	48	25	14	1	327	358	358					14	8
53	Gundagai	0.1	0.1	0.1	30	34	27			0					0.2			92	105	105	***105***	100	10	76	14			110	109	121					100	100
54	Gunnedah	0.8	0.7	0.7	24	34	55	17	16	26	1	1	2		0.1	6	0.4		700	700	653	100	10				90	213	187	164	10			75	86	77
55	Gunning				8	99	38			8	5							***231***	20	20	11	100						92	89	50						
56	Guyra	5.2	5.2	3.6	22	44	30	6	11	0			15						188	190	129	100						258	262	177						
57	Harden				47	62	40	9	22	9							1.3	18	186	186	***186***	100						197	198	198		100	100	75	99	99
58	Hastings	1.2				17			12										10,360	10,360								265	447	265			100			4
58-A	Hawkesbury	1.8	1.8	1.8	76	41	41	2	2	2	2			0.1		242		623	2,390	2,390	***2,390***	100	13	95	5	5		333	345	329		60	58		10	10
59	Hay					280	54			0			2		1.2		6.1	134	405	405	369	100						330	330	301						
60	Holbrook			2.1	145	116	115			0					0.5			***86***	75	73	147	100	25	75				107	107	225						16
61	Hume						20			0					0.4	113		44	217	209	214	100						150	168	166						46
62	Hunter Water						60			73														94		6		354	347	279		48	53		6	16
63	Inverell	0.6	0.4	0.4	170	170	125	10	6	6	12	5	5	0.1	0.0		0.1	118	750	771	770	100	7	86	6		1	180	176	167						
64	Jerilderie				24	12				0	25	2						765	84	84	90	100						197	203	218				4	48	44
65	Junee				58	66	63		1	0								231	228	233	256	100						123	156	172					83	60
66	Kempsey				21	15	15	38	7	7				0.4		125		366	1,840	1,840	1,870	100						266	222	221	100	100	100		15	14
67	Kyogle	1.2	0.4	3.0	60	62	59	19	76	115		16	19		0.3	27		125	198	165	329	50	34	66				133	111	111				25	20	29
68	Lachlan				20	56	40			0					0.1			82	660	646	649	91						315	307	282				14	19	28
69	Leeton	0.6	0.6	0.5	96	96	90	4	12	10	68	35	27	0.6	0.2	31	0.0	601	1,250	1,250	1,300	76	3	59	30	13		357	337	336				2		
70	Lismore				105	65	73		20	4	39	0		0.5	1.1	246	1.6	302	3,290	3,290	3,490	100						296	280	299	100	100	100	17	13	9
71	Lithgow					1	2			0		1		0.5	0.5			241	1,800	1,460	1,620	100		70		30		226	226	211						
72	Lockhart		6.5			5	20	5		0			10					185	138	132	136	100						199	179	177		100	100		1	3
73	North Coast Water		No SGE																																	
74	Maclean		1.4	1.7		44	31		1	7		8	5		0.2	1,491		650	901	901	934	100	20	67	12	1		203	186	203	25	100	94	9	13	13
75	Manilla				336		273			0	19	10			0.3		0.2	203	230	230	***230***	100						220	235	211						100
76	Merriwa	5.0	3.5	3.4	201	107	88	201	47	64	7	2	2					392	84	59	58	100						186	130	123						34
77	MidCoast (Manning)																		3,360									227	227							
78	MidCoast (Great Lakes)																		3,900									300	300							
79	MidCoast (Combined)	1.2	1.3	1.2	25	32		6	7	2				0.6				434	6,860	6,860	6,570	94	16	66	16	1	1	231	236	211	100	100	100		0	1
80	Moree Plains	0.1	0.1		5	17	12			1	30	87	72	0.1	0.2			619	1,230	1,100	1,500	100		60	30	10		275	264	360		100	71	27	30	27
81	Mudgee	0.9	0.4	0.3	36	43	35	7	14	10	43	43	42	0.1	0.1	139	0.8	524	1,080	1,080	1,110	100	5	86	9	1		309	230	231	100	100	100	21	8	8
82	Mulwaree																	486	10	10	***10***	100						98	92	33						100
83	Murray	0.3	0.3	0.3	15	38	7			0	4	5	15			117		***220***	486	486	547	100	5	59	36			236	222	263	100			45	5	37
84	Murrumbidgee				5	100	81			0	4							176	89	78	151	100						128	112	211						7
85	Murrurundi	1.1			15	7	22	23	15	7		3	3			80	0.6	73	165	135	***135***	100						341	236	236						
86	Muswellbrook	0.3	0.3	0.3	124	181	175	100	129	98	108	115	111	1.5	0.6	145		303	1,350	1,370	1,330	100	3	54	42	1		297	304	290		25	100	75	79	83

Table 15 - Sewerage - Asset Management, Resource Management

	WATER UTILITY	ASSET MANAGEMENT																		RESOURCE MANAGEMENT																	
		Infiltration			Chokes & Collapses			Overflows			Interruptions to Service			Rehabilitations		Renewals		Total Maintenance Cost	Total Vol of Sewage Collected			Percentage of Sewage Treated	Percentage of Total Sewage Collected					Vol of Sewage Treated per Property			Biosolids Reused			% Effluent Reclaimed		
		(ML per 100km of Main)			(No. per 100 km of Main)			(No. per 100 km of Main)			(No. per '000 properties)			(% of Total Length)	(Service Connections %)	($'000 per 100 km of Main)	(% of CRC)	($'000 per 100 km of Main)	(ML)			(%)	Infiltration /inflow	Residential	Non-Residential	Trade Waste	Other	(kL/property)			(%)			(%)		
		(23)			(24)			(25)			(26)			(27)	(28)	(29)	(30)	(31)	(32)			(33)	(34)	(35)	(36)	(37)	(38)	(39)			(40)			(41)		
		2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04			2003/04	2003/04	2003/04	2001/02	2002/03	2003/04	2003/04	03/04	03/04	03/04	03/04	03/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04
87	Nambucca				36	30	46	1	6	46	4	3		0.7		171		355	1,360	1,360	1,420	100						244	236	247	100	100	100			8
88	Narrabri				577	266	155	17	7	0					***0.7***	***41***		***180***	1,000	246	1,170	97						224	68	314			57			
89	Narrandera	2.4	2.2	2.2	112	157	25		6	11	5	35		0.4	0.1			163	540	540	534	98	15	73	2	10		341	316	308						
90	Narromine														0.0				350									189	177						0	
91	Nundle	No SGE																																		
92	Oberon	0.6			45	42	26			11	3				1.2	20		429	287	287	313	100						311	296	261						0
93	Orange	3.3	1.4	3.9	91	65	80	3		8				0.1		226	0.2	107	4,040	4,040	4,680	100	32				68	358	291	331				63	80	75
94	Parkes				62	54	69	48	71	85								88	1,100	1,100	1,130	100		69	31			260	280	270				17	21	22
95	Parry	0.5	0.5	0.4		6	16			0								149	286	286	157	100	5	75	20			234	252	136	3			22	17	100
96	Pristine Waters					25			25	0						2,027		308	37	694	108	100						214	214	214					100	32
97	Queanbeyan	0.3	0.2	0.2	109	109	122			0						102		707	3,890	3,890	3,590	94	1	72	17	10		287	261	214	100	100	100		1	2
98	Quirindi				41	33	33	3	3	3	4	4	3	0.1	0.4		0.6	322	260	249	***249***	100						232	222	213						
99	Richmond Valley	0.5			9	9	9	1	2	2	5	3	3	1.7	0.8	164	1.1	237	1,550	1,420	1,780	100						258	235	293				3	3	11
100	Riverina	No SGE																																		
101	Rous	No SGE																																		
102	Rylstone	1.0			71	95	119	73	95	0	1				0.5			58	217	213	212	100						229	317	203					3	
103	Scone	4.1	0.1	0.2	94	98	68		24	28		261		0.5		116		142	808	808	814	100	2	98				366	302	304				81	73	65
104	Severn	0.7	0.7	0.7						0								***168***	13	13	***13***	100	36	48	15		1	65	65	64				100	100	100
105	Shoalhaven	0.5	0.4	0.4	36	26	32	5	7	27				0.6	0.4	229	1.0	115	6,710	6,710	6,700	100	6	70	16	8		209	192	188	100	100	47	21	2	30
106	Singleton				4	8	33		1	0	16	16	16	0.2	0.3	198		242	1,150	1,150	1,130	98						257	240	235				99	100	100
107	Snowy River				7	7	7	4	4	4						85		101	415	415	***415***	100						135	141	141						
108	Sydney Water					85	73			73				0.3										94		6		285	326	221		100	100		3	15
109	Tallaganda	0.7	5.0	0.1	89	207	7	7		52	64		30			22		452	76	76	79	100	2	99				169	157	160	100	100				
110	Tamworth			0.3	4	28	45	3	5	20				1.2	0.8	111	0.9	259	4,270	4,270	4,930	89	2	72	8	18		293	303	304	80	80	100			
111	Temora	3.3		3.0	7	250	599	10		449	51	1	2		0.2			623	510	510	360	100	14	83	3			256	256	191					20	100
112	Tenterfield				109	140	111			0		17	48	0.1					250	258	276	100						205	178	191					44	38
113	Tumbarumba	2.2	1.7	0.2	75	72	53			0	11	11	2	0.5	0.4		0.2	222	233	233	258	100	3	97				351	264	287	12					
114	Tumut				22	190	99	2	13	0				70.0		78		137	845	845	961	100						231	236	268			68	3	8	3
115	Tweed	0.3	1.5	0.8	12	5	8	2	7	4	37	37	23	0.0	0.1	597		416	7,270	7,810	7,600	100	6	71	9	15		343	317	304			55		3	5
116	Uralla	0.6	0.6	0.6	32	14	14	32	14	14	17	4	4		0.5			64	145	145	147	100	12	82	6			148	147	148						
116-A	Urana						33	7		7			7						76	88	88	100						267	308	308						
117	Wagga Wagga	0.1	0.1	0.1	335	152	94	8	8	4	95	88	72	0.1	0.2	121		47	5,550	6,530	6,320	100	1	67	17	15		263	295	286		100	100	26	21	17
118	Wakool									0						2	0.4	***104***	74	66	73	100		85	5		10	71	72	80						
119	Walcha	0.8	0.7	0.8	38	7	14	41	28	28	33	21	5					168	171	171	188	100	12	80	9			253	224	246						
120	Walgett					4				0								***198***	622	622	***622***	90						392	392	392				83	94	83
121	Warren				270		473			0								806	227	227	196	96						255	256	230						
122	Weddin				7	149	64			0		47						103	159	159	171	100						189	177	181			18	18	31	24
123	Wellington	2.1	1.5	0.7	138	79	100	19	5	145	37	33		0.1		21		350	424	424	411	100	7	65	28			286	182	174						
124	Wentworth		0.0	0.01	31		33			0					0.5	286		113	545	520	551	100	0	91	5	4		181	355	372					65	62
125	Wingecarribee				50		46			1				0.9		194	0.5	171	2,980	2,980	2,850	100						275	240	219		20				1
126	Wyong				32	46	42		0	0				0.1	0.0	177		421	14,056	11,701	11,200	100						284	282	202		83	72			
127	Yallaroi			1.4	180		198	5		45			33					473	190		160	100	19	75	6			321	318	268			50			30
128	Yarrowlumla	4.9	4.7		24	18	6			0									194	194	193	98		98			2	214	193	191	9					
129	Yass Valley				64	62	83			1				0.1	0.3	390		53	378	378	459	100						214	194	231					65	37
130	Young				156	73	50	156	10	8	201	15	24	1.2	1.9	57			761	732	758	100				8	92	235	223	224				26	30	13

Table 15 - Sewerage - Asset Management, Resource Management

	WATER UTILITY	ASSET MANAGEMENT																		RESOURCE MANAGEMENT																	
		Infiltration			Chokes & Collapses			Overflows			Interruptions to Service			Rehabilitations		Renewals		Total Maintenance Cost		Total Vol of Sewage Collected			Percentage of Sewage Treated	Percentage of Total Sewage Collected					Vol of Sewage Treated per Property			Biosolids Reused			% Effluent Reclaimed		
		(ML per 100km of Main)			(No. per 100 km of Main)			(No. per 100 km of Main)			(No. per '000 properties)			(% of Total Length)	(Service Connections %)	($'000 per 100 km of Main)	(% of CRC)	($'000 per 100 km of Main)		(ML)			(%)	Infiltration /inflow	Residential	Non-Residential	Trade Waste	Other	(kL/property)			(%)			(%)		
		(23)			(24)			(25)			(26)			(27)	(28)	(29)	(30)	(31)		(32)			(33)	(34)	(35)	(36)	(37)	(38)	(39)			(40)			(41)		
		2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04			2003/04	2003/04	2003/04	2001/02	2002/03	2003/04	2003/04	03/04	03/04	03/04	03/04	03/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04
131	Albury City				77		185	11		37					0.9	118		297	4,967	4,706	5,066	100						259	255	244						97
132	Clarence Valley				24	46		12		22									2,859	3,155	2,672	100						254	217	202					10	
133	Coffs Harbour				57	87		57	52	47						301		166	5,900	6,262	5,909	100						305	302	292					8	9
134	Corowa				59		38			7					0.1	50		236	841	835	880	100						229	201	212						59
135	Glen Innes Severn				7			1		8								18	390	390	623	100						198	137	219						
136	Goulburn Mulwaree				55			43										164	1,880	1,880	1,780	100						262	211	183						100
137	Greater Hume				52		39	1		3								91	370	365	442	100						178	157	190						37
138	Gwydir			1.0	114		119	12		30	2		20						510		215	98	21	67	12			434	188	175						
139	Liverpool Plains				28	24	28	3		2	3							261	450	433	362	100						239	233	189						
140	Mid Western Regional	0.9			43	54	54	22	32	8	36				0.2			421	1,297	1,293	1,322	100						295	246	226					7	
141	Palerang	3.7	4.7		42	71	6	2		15	21								270	270	271	99		98				199	181	181	39					
142	Tamworth Regional				34		65	2		17	1							257	4,754	4,754	5,364	92						285	295	292						
143	Upper Hunter	4.0			102	90	67	32	26	32	1	194						172	1,024	975	980	100						339	271	272						
144	Upper Lachlan				2		63			2	1							183	243	243	258	100						267	192	204						
145	Warrumbungle				8		64			0			48					148	575		591	100						229	229	255						

Table 16 - Sewerage - Financial, Efficiency

	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 7)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 7)											
		Total Turnover (excl. Capital Works Grants) ($'000) (42)				Residential Revenue (% of Annual rates and charges) (43)	Residential Sewage (% total collectd excluding infiltration & inflow (44)	Current Replacement Cost (CRC) of System Assets			Debt to Equity (%) (48)			Cross Subsidies		Operating Result ($/property)		Externalities (Annual Fees to DEC) ($/property) (51)	Operating Cost (OMA) ($/property) (52)				OMA+ Depreciation ($/property) (53)				Management Cost ($/property) (54)			
								Written Down Cost ($'M) (45)	Current Replacement Cost ($'M) (46)	Current Replacement Cost per Assessmnt ($) (47)				Annual Fees & Charges ($/assessment) (49a)	Developer Charge ($/assessment) (49b)														
		2000/01	2001/02	2002/03	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	01/02	02/03	03/04	2003/04	2003/04	2002/03	2003/04	2003/04	2000/01	2001/02	2002/03	2003/04	2000/01	2001/02	2002/03	2003/04	2000/01	2001/02	2002/03	2003/04
1	Albury	7,840	7,470	8,100	9,000	87		125	201	9,900	26	15	13	108	10	-31	-45	0.8	231	251	273	263	341	361	399	412	108	124	135	111
2	Armidale Dumaresq	2,310	2,720	3,100	3,000	68		27	59	7,800	1	0	0			-8	-39	1.6	215	235	294	313	340	359	432	441	118	141	129	131
3	Ballina	5,960	6,870	6,700	9,400	81		64	92	7,000	1	1	0			87	308	1.5	295	329	310	323	406	455	436	446	96	98	100	115
4	Balranald	323	290	299	315	88	***90***	7	10	12,500	4	0	0			93	50		104	128	101	162	307	332	307	364	30	41	41	*45*
5	Barraba	175	181	184	199	90		1	1	1,500	0	0	0			-70	-80		270	251	312	365	308	289	350	406	56	56	62	124
6	Bathurst Regional	4,920	6,750	7,500	9,100	76		76	90	7,800	2	1	1			195	329	3.3	217	233	236	237	350	366	377	369	98	96	96	99
7	Bega Valley	4,890	4,940	4,900	5,300	82		39	79	7,700	1	1	1			-70	-95	3.5	276	311	317	428	463	504	507	617	143	151	157	199
8	Bellingen	1,380	1,550	1,700	1,500	87		14	26	8,800	1	0	0			79	-20	2.0	269	263	322	357	461	459	514	545	72	73	141	155
9	Berrigan	1,040	1,010	1,100	1,200	85		9	22	7,400	5	4	3		10	10	15	0.8	196	195	188	215	338	343	338	359	79	84	88	87
10	Bingara	174	176	178	***178***	88	77		8	12,700	2	2	2			-273	0	1.2	211	287	312		456	536	564		50	68	97	97
11	Bland	663	679	715	762	90		5	8	4,400	0	0	0			54	61	8.5	215	222	215	227	351	364	356	372	72	72	45	41
12	Blayney	559	680	778	1,000	82		9	10	7,300	15	17	13			213	219	1.7	218	206	203	312	323	301	305	406	107	105	90	135
13	Bogan	380	414	432	453	90		3	7	7,200	6	5	3			135	160	2.4	177	236	187	190	284	344	294	297	116	158	125	126
14	Bombala	331	336	363	373	80	81	3	6	7,100	19	16	13			79	178	3.2	205	193	207	168	277	263	278	243	45	60	66	56
15	Boorowa	88	89	103	111	85		3	5	8,200	0	0	0			-138	-77	0.9	155	150	151	177	562	559	328	287	21	21	21	25
16	Bourke	528	535	558	531	90		2	7	4,300	12	6	4			-18	-144	1.9	297	221	271	381	465	391	441	551	122	42	102	140
17	Brewarrina	180	188	195	216	72		0	6	9,800	4	4	3	70		-46	-38	5.1	221	327	378	400	288	393	446	477	27	32	39	39
18	Australian Inland	2,540	2,560	2,700	2,600	77			35	3,700	3	0	0			23	-6		188	173	175	201	265	250	249	283	54	107	59	68
19	Byron	7,740	8,190	8,200	9,300	78	***90***	64	103	10,300	9	7	6			112	147	1.7	399	457	520	493	494	551	614	676	139	127	132	160
20	Cabonne	1,170	1,130	1,200	1,300	89		12	17	7,000	12	11	10			130	212	2.1	140	168	195	158	273	301	337	301	35	40	45	38
21	Carrathool	100	130	606	125	90		2	4	4,600	0	0	0			378	-131		163	129	112	209	254	203	186	280	39	49	29	38
22	Central Darling	102	193	104	102	90		2	2	6,200	0	0	0			0	3		105	488	219	129	190	573	304	216	27	27	27	27
23	Central Tablelands				**No SGE**																								
24	Cobar	416	415	392	427	81	***90***	3	9	5,200	0	0	0			-35	42	6.7	134	224	152	215	253	351	270	215	75	113	68	68
24-A	Cobar WB				**No SGE**																								
25	Coffs Harbour	14,100	16,700	18,900	19,400	89	74	130	184	8,600	35	29	24			364	337	0.8	294	306	313	332	444	446	460	480	84	83	85	107
26	Coolah	234	235	269	258	90	***90***		2	2,800	0	0	0			115	49	0.6	141	190	170	208	176	223	210	249	21	37	31	35
27	Coolamon	281	358	287	366	83		3	4	4,600	8	5	3			43	121		138	126	140	170	273	262	282	312	39	42	37	47
28	Cooma-Monaro	1,520	1,530	1,700	***1,700***	81		11	14	4,500	13	12	10			-14	-45	0.9	255	286	329	366	423	457	504	545	75	98	104	110
29	Coonabarabran	745	787	773	801	78			19	12,600	7	7	7			-93	-123	2.0	249	263	299	347	505	522	554	604	97	114	125	151
30	Coonamble	483	463	495	518	86	***90***	4	13	8,600	1	1	1			-48	-25		183	152	168	165	422	391	396	400	21	21	21	*21*
31	Cootamundra	534	725	588	598	90			7	2,900	12	12	11			-171	-165	0.9	131	138	151	164	289	323	347	360	41	42	44	43
32	Copmanhurst	467	336	578	416	90		2	4	7,600	0	0	0			793	405		475	358	370	392	590	470	480	506	162	120	139	138
33	Corowa	1,140	1,210	1,400	***1,400***	84		10	20	5,700	2	0	2			72	48	13.0	225	214	212	249	324	315	310	348	77	79	74	76
34	Cowra	1,200	1,180	1,300	***1,300***	72			9	2,600	4	4	12			105	95	12.6	143	168	161	183	230	256	249	268	46	54	88	114
35	Crookwell	428	415	446	478	85	82	8	9	9,200	20	20	19			-130	-92		181	212	261	254	349	305	444	439	25	30	45	41
36	Culcairn	288	288	296	310	83		5	9	6,800	7	6	6			-48	-41		114	146	147	153	221	254	255	260	27	35	42	44
37	Deniliquin	1,110	1,280	1,400	1,500	80	71	8	24	7,700	4	4	3			27	56	30.4	210	259	288	285	331	393	424	409	88	91	95	100
38	Dubbo	7,370	7,830	8,500	8,400	81	83	44	114	9,200	0	0	0			220	78	9.9	252	277	266	365	371	399	402	529	113	84	107	113
39	Dungog	486	494	534	723	85		2	9	7,900	17	15	13			122	237	4.0	224	223	254	270	316	319	351	361	83	72	88	89
40	Eurobodalla	8,160	8,780	10,800	12,000	85		91	131	7,400	15	12	10			160	176	1.3	298	282	304	345	426	409	461	490	108	106	124	110
41	Fish River WS				**No SGE**																								
42	Forbes	1,410	1,480	1,500	1,600	80	88	7	11	3,500	20	16	15			161	122	3.1	140	171	184	248	202	242	285	310	39	39	39	*31*
43	Gilgandra	253	258	267	378	87	86	4	10	7,700	3	2	1	32		-111	-24	21.9	116	138	150	144	244	260	276	267	30	26	41	41

Table 16 - Sewerage - Financial, Efficiency

	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 7)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 7)											
		Total Turnover (excl. Capital Works Grants) ($'000) (42)				Residential Revenue (% of Annual rates and charges) (43)	Residential Sewage (% total collectd excluding infiltration & inflow (44)	Current Replacement Cost (CRC) of System Assets: Written Down Cost ($'M) (45)	Current Replacement Cost ($'M) (46)	Current Replacement Cost per Assessmnt ($) (47)	Debt to Equity (%) (48)			Cross Subsidies: Annual Fees & Charges ($/assessment) (49a)	Cross Subsidies: Developer Charge ($/assessment) (49b)	Operating Result ($/property) (50)		Externalities (Annual Fees to DEC) ($/property) (51)	Operating Cost (OMA) ($/property) (52)				OMA+ Depreciation ($/property) (53)				Management Cost ($/property) (54)			
		2000/01	2001/02	2002/03	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	01/02	02/03	03/04	2003/04	2003/04	2002/03	2003/04	2003/04	2000/01	2001/02	2002/03	2003/04	2000/01	2001/02	2002/03	2003/04	2000/01	2001/02	2002/03	2003/04
44	Glen Innes	736	761	776	829	89		4	16	5,600	11	0	0			41	97	3.3	107	124	141	145	158	173	189	193	51	60	61	61
45	Gloucester	554	540	779	682	87		4	11	7,900	7	3	1	9		200	82	10.2	177	175	230	289	282	314	373	434	58	38	59	59
46	Goldenfields (Bulk)				**No SGE**																									
47	Goldenfields (Retic)				**No SGE**																									
48	Goldenfields (Comb)				**No SGE**																									
49	Gosford	26,900	27,300	27,100	27,300	85	82	290	399	6,100	6	3	0			101	68	0.6	214	218	241	246	308	312	336	354	107	111	129	133
50	Goulburn	3,540	3,920	4,200	4,500	79	58	28	32	3,500	37	38	37			44	73	0.9	266	277	293	259	329	349	369	337	114	122	133	125
51	Grafton	3,140	3,050	3,200	***3,200***	87			47	6,700	0	0	0			51			195	246	246		292	356	354		83	86	93	***93***
52	Griffith	3,910	4,210	4,500	4,100	68	55	32	34	4,100	0	0	0			51	61	9.3	304	385	430	357	437	513	568	509	62	58	99	122
53	Gundagai	218	225	240	244	87	84	1	1	1,100	1	1	0			4	15	0.9	185	213	215	236	206	237	244	267	60	59	52	49
54	Gunnedah	921	978	986	1,000	88		9	21	5,400	3	2	1	12		64	58	0.6	97	97	109	117	181	184	186	191	21	23	21	24
55	Gunning	123	121	136	140	90		1	2	7,400	0	0	0			201	263		217	252	281	223	357	394	406	361	20	20	20	***20***
56	Guyra	456	487	516	543	82		7	10	13,000	26	23	20			157	155	3.3	220	208	196	248	353	418	414	463	98	63	52	82
57	Harden	239	253	281	312	83		1	6	6,600	7	7	5			-47	-12	2.5	209	220	218	217	334	345	341	340	61	62	80	69
58	Hastings	13,900	16,000	17,500	19,800	88		104	151	6,000	5	4	3			339	335	4.3	225	255	277	298	340	366	390	411	69	73	75	93
58-A	Hawkesbury		3,770	3,400	3,800	77	***90***	52	57	7,600	0	0	0			21	-1	3.1		327	329	348		417	463	522		148	149	154
59	Hay	499	493	502	519	87		5	5	4,200	0	0	0	23		-32	0		262	297	272	255	423	460	441	423	71	94	71	73
60	Holbrook	283	302	323	338	90	***90***	2	5	6,500	5	0	0			104	137		244	258	258	247	359	372	374	364	79	79	79	79
61	Hume	321	379	384	422	90		6	7	5,100	0	0	0			-44	-32		247	225	248	260	348	328	350	360	88	91	120	123
62	Hunter Water	65,000	72,000	78,000	75,000				965										143	175	175	154	225	255	251	154				
63	Inverell	1,170	1,230	1,300	***1,300***	90	***90***	8	27	5,700	2	1	0			-40	-64	14.1	177	188	185	192	315	324	314	314	52	56	73	75
64	Jerilderie	214	502	237	280	43			2	5,600	11	9	4			165	307	1.8	286	175	254	257	368	258	334	322	134	134	97	87
65	Junee	527	420	476	491	86		3	7	4,400	0	0	0			49	4	1.6	194	193	185	237	280	276	270	325	48	45	48	55
66	Kempsey	4,540	5,050	5,300	9,800	74		56	88	10,800	11	9	8			96	608	2.3	295	329	343	338	443	473	484	486	93	101	100	95
67	Kyogle	552	599	617	673	85	***90***	6	14	8,600	8	8	3			-69	-50	2.6	245	244	260	279	425	426	451	474	91	92	95	91
68	Lachlan	745	735	795	804	82		8	16	7,800	0	0	0			91	76	5.3	168	201	163	183	286	317	287	307	44	52	51	51
69	Leeton	1,630	1,710	2,400	1,900	77	61	12	23	7,300	5	6	4			451	265	12.9	226	271	257	253	349	396	374	371	63	73	64	74
70	Lismore	6,070	5,300	5,900	6,600	74		55	93	8,300	3	2	0			121	145	2.1	216	255	243	278	347	383	373	411	35	44	44	52
71	Lithgow	2,040	2,050	2,200	2,300	90		8	38	4,800	0	0	0			-8	41		243	218	221	183	311	288	290	254	91	70	55	41
72	Lockhart	318	324	345	346	89		8	12	14,600	2	0	0			65	81	2.0	212	241	206	189	391	412	371	343	41	119	93	92
73	North Coast Water				**No SGE**																									
74	Maclean	3,080	3,080	3,300	5,200	83	84	20	32	6,300	5	4	4	7	831	279	666		209	222	234	281	319	337	336	390	72	80	77	105
75	Manilla	580	529	584	549	89		5	8	7,200	19	16	13			-14	-236		217	283	299	467	395	460	544	664	94	121	123	272
76	Merriwa	142	148	147	154	84			3	6,900	0	0	0			-75	-15		197	297	233	250	363	463	399	341	51	102	88	97
77	MidCoast (Manning)																													
78	MidCoast (Great Lakes)																													
79	MidCoast (Combined)	17,500	20,600	21,600	15,700	86	79	156	271	8,900	2	26	27			140	-98		265	332	305	325	474	536	510	546	61	106	84	85
80	Moree Plains	2,460	2,180	2,500	2,600	76		16	29	6,700	30	26	24			-59	27	5.6	302	384	360	376	389	491	492	511	51	106	121	166
81	Mudgee	1,890	1,880	2,100	2,300	85	***90***	15	30	6,300	8	7	6			75	86		233	226	242	279	346	340	354	389	90	84	89	101
82	Mulwaree	198	214	258	283	59		3	3	10,700	34	34	28	26		376	379		110	119	95	137	306	308	288	330	18	18	18	18
83	Murray	836	898	993	1,100	89	62		9	4,100	34	33	24			16	57	1.1	165	189	185	198	337	362	346	364	77	88	82	85
84	Murrumbidgee	261	281	245	265	90		3	4	5,500	2	2	1			143	181	1.1	90	82	138	124	151	149	199	183	22	22	56	*56*
85	Murrurundi	187	174	174	266	85		3	4	6,600	0	0	0			54	220		97	124	105	100	268	295	250	245	20	20	20	*20*
86	Muswellbrook	1,720	1,880	2,100	2,500	90	56	17	33	6,800	0	0	0			47	133	1.1	322	288	309	288	436	400	425	403	45	45	56	63

Table 16 - Sewerage - Financial, Efficiency

	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 7)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 7)											
		Total Turnover (excl. Capital Works Grants) ($'000) (42)				Residential Revenue (% of Annual rates and charges) (43)	Residential Sewage (% total collectd excluding infiltration & inflow (44)	Current Replacement Cost (CRC) of System Assets			Debt to Equity (%) (48)			Cross Subsidies		Operating Result ($/property)		Externalities (Annual Fees to DEC) ($/property) (51)	Operating Cost (OMA) ($/property) (52)				OMA+ Depreciation ($/property) (53)				Management Cost ($/property) (54)			
								Written Down Cost ($'M) (45)	Current Replacement Cost ($'M) (46)	Current Replacement Cost per Assessmnt ($) (47)				Annual Fees & Charges ($/assessment) (49a)	Developer Charge ($/assessment) (49b)														
		2000/01	2001/02	2002/03	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	01/02	02/03	03/04	2003/04	2003/04	2002/03	2003/04	2003/04	2000/01	2001/02	2002/03	2003/04	2000/01	2001/02	2002/03	2003/04	2000/01	2001/02	2002/03	2003/04
87	Nambucca	2,920	2,880	3,200	3,100	70		27	48	7,900	15	13	11			135	79	3.1	231	229	225	262	367	372	368	408	86	88	86	103
88	Narrabri	1,360	1,300	1,200	***1,200***	82		19	43	11,600	17	14	14			-120	-96	0.7	167	224	202	204	343	405	384	383	36	66	87	84
89	Narrandera	896	861	902	969	85	86	12	22	11,900	0	0	0	14		199	200		236	197	222	284	346	308	332	371	53	59	67	84
90	Narromine	826	839	975	966	90		7	16	7,100	2	2	0			7	11	2.3	317	327	303	264	500	510	471	447	178	178	162	*155*
91	Nundle				**No SGE**																								
92	Oberon	531	478	512	513	64		4	4	3,800	2	1	0	47	17	-68	-23	5.0	234	290	368	325	333	401	464	420	54	60	58	58
93	Orange	6,040	6,190	6,500	7,200	85		68	107	7,700	0	0	0	16		28	21	1.2	157	157	173	217	377	367	388	437	45	66	67	86
94	Parkes	1,090	1,090	1,300	1,500	83		9	23	4,700	0	0	0			75	121	9.9	124	130	153	142	197	203	225	210	30	30	30	28
95	Parry	499	531	558	593	88	79	6	13	10,600	29	28	26			-12	3		142	168	160	172	371	399	392	402	37	40	42	52
96	Pristine Waters	***460***	457	460	838	90		7	7	12,800	29	26	***23***			-190	548		233	375	425	***495***	233	427	807	***711***	55	46	54	44
97	Queanbeyan	13,500	8,360	8,600	7,200	90	73	54	64	4,100	0	0	0	16	73	271	146		174	196	226	226	316	272	303	304	73	80	77	74
98	Quirindi	383	360	374	369	87		3	12	9,900	1	0	0			21	43		172	177	190	155	296	288	311	272	35	33	33	*35*
99	Richmond Valley	2,460	2,460	2,500	3,700	90		23	45	7,100	9	9	0			291	138	6.9	279	254	308	320	408	367	438	434	108	102	144	148
100	Riverina				**No SGE**																								
101	Rous				**No SGE**																								
102	Rylstone	414	438	456	470	89		3	7	6,400	0	0	0			-83	-79		299	340	334	349	488	531	524	519	39	69	75	129
103	Scone	1,040	967	1,100	1,300	90	***90***	10	18	6,700	0	0	0			35	118		242	244	246	255	360	361	367	379	92	91	111	127
104	Severn	80	83	90	97	72	75	1	1	5,000	8	6	3			152	179		70	113	148	146	200	237	275	281	25	49	84	82
105	Shoalhaven	22,200	24,200	24,900	24,400	85	74	199	274	6,900	13	10	8			229	197	1.6	267	310	313	323	373	418	437	449	103	116	124	127
106	Singleton	1,780	2,460	2,500	3,000	83		25	44	9,000	0	0	0			181	272	10.6	195	190	199	191	348	341	354	349	81	62	59	49
107	Snowy River	1,340	1,420	1,700	1,600	83		13	22	9,500	8	0	0			174	153	1.7	166	206	211	198	288	332	334	323	48	71	61	*63*
108	Sydney Water	788,000	759,000	778,000	748,000				5,890										233	271	261	194	312	353	360	194				
109	Tallaganda	152	153	153	174	86	***90***	2	2	4,300	0	0	0			-70	-55		212	233	293	319	292	315	372	396	30	47	45	45
110	Tamworth	7,830	7,630	7,800	7,200	78	73	55	114	7,900	5	4	4			40	59	0.8	267	273	349	271	384	415	497	418	75	76	86	64
111	Temora	303	354	360	439	77	***90***	3	9	4,500	0	0	0			-18	21	1.3	139	156	158	165	183	200	203	212	25	28	25	26
112	Tenterfield	733	675	662	698	79		-7	13	8,600	2	0	0			-33	-34	3.1	244	302	324	347	404	462	484	509	101	160	186	204
113	Tumbarumba	363	352	368	409	87	***90***	2	10	10,100	0	0	0			-60	-7	3.5	250	207	216	197	471	427	442	423	47	51	56	59
114	Tumut	1,940	2,030	2,100	2,300	74		19	38	10,100	3	2	2			108	126	2.6	200	199	261	281	388	387	479	510	63	66	83	82
115	Tweed	17,720	21,550	19,100	18,900	89	76	147	207	7,500	6	5	3			335	265	2.5	234	258	252	291	382	450	395	435	78	80	90	99
116	Uralla	390	413	438	440	90	***90***	3	6	6,000	12	1	***1***			-28	25	2.4	220	225	265	248	220	387	426	408	122	116	145	115
116-A	Urana	174	182	175	***175***	90		0	4	12,100	17	16	15			25	0		193	330	235		358	495	404		95	105	84	84
117	Wagga Wagga	6,910	7,110	8,800	10,700	69	68	94	166	7,800	1	1	0			217	288	4.3	111	129	137	151	148	166	177	192	30	30	30	*33*
118	Wakool	495	485	570	515	76		4	7	6,800	6	10	13			171	105		160	244	289	272	270	376	420	407	24	81	123	101
119	Walcha	187	206	210	220	79	***90***	3	6	7,800	1	1	1	75		-119	-99	3.1	207	201	268	200	334	325	390	323	41	41	48	38
120	Walgett		492	539	556	90		5	12	6,900	4	3	***3***			-83	-84		170	157	211	226	170	394	450	466	75	63	60	82
121	Warren	411	450	503	514	78		3	5	5,500	3	3	2			175	227	2.9	201	203	212	230	347	342	412	387	35	38	51	55
122	Weddin	145	146	151	165	82		1	7	6,500	0	0	0			-113	-77	2.5	112	141	133	111	250	281	281	251	27	27	29	27
123	Wellington	925	1,030	1,100	1,200	88	70	4	17	7,200	12	11	10			75	81	2.6	245	254	214	241	413	415	346	364	108	121	95	88
124	Wentworth	603	614	761	831	88	***90***	14	15	9,600	15	11	11		139	-25	-5	3.0	241	244	267	251	378	383	471	463	52	58	70	61
125	Wingecarribee	6,920	8,090	7,400	8,300	88		90	127	9,300	19	18	17			14	48	3.8	258	254	252	271	423	437	446	456	136	119	96	108
126	Wyong	22,400	34,100	23,900	23,200	89		244	348	6,100	8	7	7			30	49	0.8	201	223	261	231	302	342	396	351	45	61	90	64
127	Yallaroi	161	166	169	182	88	***90***	3	6	10,100	2	1	1			-125	-184	4.0	137	162	189	243	340	364	395	465	22	22	22	*49*
128	Yarrowlumla	1,440	651	695	***695***	90			6	5,500	15	12	15			175	0		355	297	321		494	423	451		111	100	113	113
129	Yass Valley	913	976	1,100	1,500	86		4	11	5,600	2	1	0			169	323	21.1	316	253	258	261	370	307	347	349	102	77	80	87
130	Young	820	837	996	1,200	89		4	5	1,600	6	6	5			107	164	25.9	102	123	127	121	146	153	158	150	25	33	33	*33*

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	WATER UTILITY	FINANCIAL (SEE ALSO COST RECOVERY TABLE 7)																EFFICIENCY (SEE ALSO COST RECOVERY TABLE 7)											
		Total Turnover (excl. Capital Works Grants) ($'000) (42)				Residential Revenue (% of Annual rates and charges) (43)	Residential Sewage (% total collectd excluding infiltration & inflow (44)	Current Replacement Cost (CRC) of System Assets			Debt to Equity (%) (48)			Cross Subsidies		Operating Result ($/property)		Externalities (Annual Fees to DEC) ($/property) (51)	Operating Cost (OMA) ($/property) (52)				OMA+ Depreciation ($/property) (53)				Management Cost ($/property) (54)			
								Written Down Cost ($'M) (45)	Current Replacement Cost ($'M) (46)	Current Replacement Cost per Assessmnt ($) (47)				Annual Fees & Charges ($/assessment) (49a)	Developer Charge ($/assessment) (49b)														
		2000/01	2001/02	2002/03	2003/04	2003/04	2003/04	2003/04	2003/04	2003/04	01/02	02/03	03/04	2003/04	2003/04	2002/03	2003/04	2003/04	2000/01	2001/02	2002/03	2003/04	2000/01	2001/02	2002/03	2003/04	2000/01	2001/02	2002/03	2003/04
131	Albury City	7,850	7,481	8,112	9,013	87		125	201	9,900	26	15	13			-31	-45	0.8	231	251	273	263	341	361	399	412	108	124	135	111
132	Clarence Valley	6,894	6,672	7,285	9,193	86		25	86	6,721	2	2	2			141	236		209	244	250	267	309	355	361	377	81	84	88	97
133	Coffs Harbour	14,353	16,951	19,153	19,861	89		133	188	8,642	34	29	24			358	339		293	307	314	334	442	446	463	483	84	83	84	106
134	Corowa	1,361	1,472	1,665	1,691	85		14	25	5,574	2	0	2			48	31		230	217	219	252	329	318	319	351	80	81	84	85
135	Glen Innes Severn	816	844	866	926	88		5	17	5,558	11	0	0			48	103		104	123	141	145	161	177	195	200	49	60	63	62
136	Goulburn Mulwaree	3,738	4,134	4,458	4,783	79		31	36	3,716	37	38	37			54	82		261	272	288	255	329	348	367	336	111	119	129	122
137	Greater Hume	661	696	727	766	86		8	15	6,444	5	4	3			-5	11		171	190	194	197	280	299	304	305	51	56	65	67
138	Gwydir	335	342	347	360	88	83	3	13	11,426	2	2	2			-201	-90	2.6	175	226	252	278	399	452	481	515	36	45	60	73
139	Liverpool Plains	695	687	716	748	87		7	20	9,933	10	9	9			12	40		158	171	175	157	319	325	334	313	35	35	35	40
140	Mid Western Regional	2,304	2,318	2,556	2,770	86	74	18	36	6,318	6	6	5			47	56		245	247	259	291	371	374	385	412	81	81	86	106
141	Palerang	1,592	804	848	869	89		2	8	5,104	10	8	10			94	-18		308	276	312	320	427	388	425	433	84	83	91	91
142	Tamworth Regional	8,810	8,579	8,819	8,215	81		64	129	7,755	6	6	5			30	31		262	272	341	289	385	417	496	439	75	78	87	82
143	Upper Hunter	1,332	1,254	1,386	1,667	89		13	25	6,713	0	0	0			23	114		217	235	226	234	349	366	356	356	77	83	96	109
144	Upper Lachlan	551	536	582	618	86		9	11	8,876	17	16	16			-70	-28		187	219	265	249	350	321	437	425	24	28	41	38
145	Warrumbungle	979	1,022	1,042	1,059	82			22	9,268	4	4	4			-22	-65	1.5	212	238	255	299	393	421	437	483	71	88	93	111

Table 17 - Sewerage - Environmental, Levels of Service

	WATER UTILITY	ENVIRONMENTAL																LEVELS OF SERVICE															
		BOD					SS					Sewer Main Chokes & Collapses see Col(24) Table 15			Sewer Overflows to the Environment see Col(25) Table 15			Odour Complaints			Service Complaints			Average Customer Outage Time			Customer Interruption Frequency				Average Duration of Interruption			
		DEC Discharge Licence Compliance (%) (55)				90 %-ile Limit (mg/L) (56)	DEC Discharge Licence Compliance (%) (57)				90 %-ile Limit (mg/L) (58)	(per 100 km of Main) (59)			(per 100 km of Main) (60)			(per 1000 properties) (61)			(per 1000 properties) (62)			(mins/property-unplanned) (63)			(per 1000 properties) (64)				(hours) (65)			
		2000/01	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*
1	Albury	100	100	96	85	15	98	96	65	58	20	78	83	187	11	22	37	1	0	0.4		28	40									3	3	2	2
2	Armidale Dumaresq	100	100	100	100	8	100	100	100	100	6		67	78		15	8	1	0.4	0.7			49										1		
3	Ballina	98		95	97	20	88		91	90	30	5	24	14	5	2	1	1	3	1		2	3		0				1			2	0	6	6
4	Balranald	NL	NL	NL	NL		NL	NL	NL	NL		21	18	11			0.0	7	0	0	19	19	12	1	1				10			2	3	1	1
5	Barraba	100	100	100	100	20	100	100	100	100	30	182	86	179			0	0	5	0	36	36	82									3	2	1	2
6	Bathurst Regional	100	100	100	100	20	100	100	100	96	25	10	12	20	6	3	2	0	0	0.2	15	15	14	2	2	1	7	12	13	12	2	2	2	2
7	Bega Valley	100		97	96	20	92		95	96	30	39	32	28		26	23			1		2	10								2	2	2	2
8	Bellingen	98	94	94	97	10	92	84	84	95	15	32	39	21			19	1	1	1	11	11	5											1	1
9	Berrigan	100	100	100	100	30	100	100	100	100	30		20	22			0	0	0	0	7	7	7	0.0	0.0	0.1	2	2	1	1	1	1	1	2
10	Bingara			100	100	20	100		75	82	30	33	59	22	22	11	11	3	0	13		19	24		1	1		3	3	7	1	2	3	3
11	Bland	100	100	100	100	20	100	94	94	77	30	98	81	141			26	0	0	0	62	62	120			0				2	2	1	1	2
12	Blayney	100	100	100	100	30	100	100	100	100	30	65	49	29			0	0	0	0	14	14	13								1	1	1	1
13	Bogan	NL	NL	NL	NL		NL	NL	NL	NL			5					2			4	4											2	2
14	Bombala	100		100	100	20	100		100	100	30	70	32	44	61		0	4	20	1	32	35	23		2	1			21	13	2	2	2	2
15	Boorowa	100					100					72	31	66			0	0	0	0		45	25				21	38			1	1		1
16	Bourke	NL	NL	NL	NL	15	NL	NL	NL	NL	20			0			0	0	6	8		25	194								2	2	3	3
17	Brewarrina	100		100	100	20	100		100	100	30	25	25	12	6		0	4	4	0	24	25	34								3	3	3	2
18	Australian Inland	100	100	100	100	40	96	97	97	96	45	154	148	109	10	5	22		0.7	3	98	98	2								1	1	1	1
19	Byron	100	100	100	100	20	100	100	100	100	25	55	9	15	1	8	2	3	3	2	14	14	10	0.8	1	1	0		6	10	1	1	2	1
20	Cabonne	92		100	100	30	89		87	87	30	26	66	38	5		0	0	0	0	11	17	11								2			
21	Carrathool	NL	NL	NL	NL		NL	NL	NL	NL		5	10	51			0	5	4	0	30	21	24		0	0.3		7	1	2		1	2	2
22	Central Darling	NL	NL	NL	NL		NL	NL	NL	NL								15	15	15	73	73	73								1	1	1	1
23	Central Tablelands	**No SGE**																																	
24	Cobar	NL	NL	NL	NL	10	NL	NL	NL	NL	15	23		1	2		0	0	0	0	6	6	1					6			2	2	2	2
24-A	Cobar WB	**No SGE**																																	
25	Coffs Harbour	100	100	100	100	50	100	100	100	100	50	58	88	82	58	53	48	1	2	3	41	40	37								2	2	2	2
26	Coolah		100	100	90	22		100	100	90	8	8	23	33			0	0	0	0	30	9	13			0				6				1.0
27	Coolamon					30					20	16	22	22				1			6	6	6											
28	Cooma-Monaro	98	200	100	100	10	99	200	100	100	15	96	63	49	96	62	155	0	0	2	88	88	118			14				116	2	2	2	2
29	Coonabarabran	83	75	75		20	83	42	42		25			74			0	3	0	0	50	50	43		2	4			50	69	0		1	1
30	Coonamble	95		92	92	20	95		25	25	55	20	20	16			0	0	0.7	0		51	28				2				2			
31	Cootamundra	100		100	100	30	100		100	85	40	122	74	162			0	0	0	0	68	39	48								2	2	2	2
32	Copmanhurst	97	76	76	69	20	100	81	81	59	30	43	52	11			0	2	9	0	21	20	4								1	1	1	1
33	Corowa	83	80	80	80		42	40	40	40		84	21	46		9	10	1	2	3	27	26	31								4	2	2	2
34	Cowra			100	75	20			55	58	30	6	21	11	6	84	89	0	0	0.3	12	30	39		1	0	2	1	3	1	2	2	4	4
35	Crookwell	100	100	100	100	16	100	100	100	100	26		0	73			0	0	1	0	24	22	0								1	1	1	
36	Culcairn	100					80					31	14	11	3	6	6	0	0	0.0	13	13	11								3	3	0	1.0
37	Deniliquin	100	71	71	69	20	40	33	33	77	30	279	137	30			0	2	1	1	31	31	30			2				20				2
38	Dubbo	75	100	100	100	30	92	100	100	67	30	55	75	64	9	12	25	0	0	0	20	18	15	1.3	1	1	11	14	18	15	1	1	1	1
39	Dungog	NL	NL	NL	NL		NL	NL	NL	NL		10	186	267	55	69	132	0	0	0	75	75	85	95	95	24			394	201			4	2
40	Eurobodalla	100	98	98	99	20	99	98	98	100	30	36	51	6	2	1	6	3	3	2	14	13	52			0				0	5	2	6	5
41	Fish River WS	**No SGE**																																	
42	Forbes	86	79	79	93	20	93	93	93	100	30	75	94	82	4	2	5	1	0	0.3	58	60	80	22	23	44	95	126	166	238	2	2	2	*3*
43	Gilgandra	95		100	100	20	100		100	100	50	64	39	9	6	6	6	5	3	4	29	8	5		3	1	40	45	15	15	2	2	3	1

Table 17 - Sewerage - Environmental, Levels of Service

	WATER UTILITY	ENVIRONMENTAL																LEVELS OF SERVICE															
		BOD					SS					Sewer Main Chokes & Collapses see Col(24) Table 15			Sewer Overflows to the Environment see Col(25) Table 15			Odour Complaints			Service Complaints			Average Customer Outage Time			Customer Interruption Frequency				Average Duration of Interruption			
		DEC Discharge Licence Compliance (%) (55)				90 %-ile Limit (mg/L) (56)	DEC Discharge Licence Compliance (%) (57)				90 %-ile Limit (mg/L) (58)	(per 100 km of Main) (59)			(per 100 km of Main) (60)			(per 1000 properties) (61)			(per 1000 properties) (62)			(mins/property-unplanned) (63)			(per 1000 properties) (64)				(hours) (65)			
		2000/01	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*
44	Glen Innes	100	100	100	100	20	100	100	100	100	30	8	13	19	1	8	9	0	0	0.4	11	11	17							2			
45	Gloucester	100	100	100	100	30	90	67	67	54	40	24	17	24		2	17	1	0	2	5	5	20									2	
46	Goldenfields (Bulk)			No SGE																													
47	Goldenfields (Retic)			No SGE																													
48	Goldenfields (Comb)			No SGE																													
49	Gosford	100	100	100	100		100	100	100	100	50	32	29	43	6	38	58	1	0.7	0.9	12	12	13							2	2	2	3
50	Goulburn	75	83	83	90	20	50	92	92	70	30	56	38	185	44	31	5	0	0	3.2	63	62	78			291			1937	2	1	1	3
51	Grafton	98	97	97	99	20	89	77	77	93	30	39	48	20	21	29	35	0	0.8	0.8	33	30	13							2	2	2	2
52	Griffith	90	50	60	100	20	90	33	41	75	20		38	165		17	12	2	2	41	36	36	54									0	1.5
53	Gundagai	96					96					30	34	27			0	1	1	0	21	21	17							1	1		
54	Gunnedah	100	100	100	100	20	90	90	90	92	30	24	34	55	17	16	26	0	0	0.3	13.6	14	26	0.0	0.1	0.1	3	1	1	2	1	1	1	1
55	Gunning	75			100	2	75			100	4	8	99	38			8	5	0	0	27	36	54					5			2	3	2	*1*
56	Guyra	100		100	100	15	100		100	92	20	22	44	30	6	11	0	0	0	0	15	28	15			2			15	2	2		2
57	Harden	92		100	100	20	83		100	100	30	47	62	40	9	22	9	1	0	0	33	42	37							2	2	2	2
58	Hastings	90		94	100	10	97		82	96	15		17			12				0	7	7	6							1		1	1
58-A	Hawkesbury			100	100	20			100	100	5	76	41	41	2	2	2	0	0.9	0.8	18	10	10					2			2	1	1
59	Hay	100	100	100	100	30	100	88	88	90	40		280	54			0	0		0	116	116	37			1			2				8
60	Holbrook											145	116	115			0	0		0	46	53	53				3			12	3	3	2
61	Hume				90					100			0	20			0	0	0	0		0	19.4										3.0
62	Hunter Water	100					100							60			73		2	1												3	
63	Inverell	95		100	100	20	85		93	100	30	170	170	125	10	6	6	1	0.5	0.2	47	48	45		0	0.3	12	12	5	5	1	1	1	1
64	Jerilderie	100	100	100	100	20	100	75	75	75	30	24	12				0	0	0	0		0	0.0	0	0.4			25	2		4	5	3	
65	Junee	100				30	100				20	58	66	63		1	0	0	0	0		69	82								1	1	1	
66	Kempsey	100	99	99	100	15	100	72	99	92	20	21	15	15	38	7	7	3	1	1	3	2	1									3	3
67	Kyogle	95		49	92	20	29		23	78	30	60	62	59	19	76	115	7	5	4	13	16	30		1	1			16	19	1	2	1	1
68	Lachlan	100		100	100	20	100		100	100	30	20	56	40			0	2	0	0	6	20	20				1				1	1	1	1
69	Leeton	100	100	100	100	50	100	100	100	100	50	96	96	90	4	12	10	1	0.7	0.3	0	0	0	4	4	3	175	68	35	27	2	2	2	2
70	Lismore	100	96	96	100	15	93	80	80	87	20	105	65	73		20	4	2	2	0.2	64	44	24	6	0		42	39	0		2	3	3	1
71	Lithgow	75		80	80	15			75	75	25		1	2			0	0	0	0		12	11		0				1		2	1	1	1
72	Lockhart	100		100	100	20	100		100	100	30		5	20	5		0	1	22	14	38	0	18			1	8			10	2			2
73	North Coast Water			No SGE																													
74	Maclean	81		99	88	15	100		82	86	20		44	31		1	7	18	0.8	2	31	28	26	1	0	0.3	14		8	5	1		1	1
75	Manilla	100		100	100	20	100		100	100	30	336		273			0	0	0	0	92	80	72		1		50	19	10		2	1	1	1
76	Merriwa	100		100	100	20	100		67	25	30	201	107	88	201	47	64	0	0	0	27		21		0.1	0.1	7	7	2	2	1	1	1	1
77	MidCoast (Manning)	100					99													0		0											
78	MidCoast (Great Lakes)	97					95													0		0											
79	MidCoast (Combined)	94	97	97	100	30	92	93	93	100	30	25	32		6	7	2	2	0.9	1	12	11	9										
80	Moree Plains			98					95			5	17	12			1	6	0	0	75	92	34		21	17	36	30	87	72	1	1	4	4
81	Mudgee	100	100	100	100	20	95	100	100	100	30	36	43	35	7	14	10	0	0	0	28	28	23	3	3	3	43	43	43	42	1	1	1	1
82	Mulwaree	100					100						0					0	0	0	0	0	3										
83	Murray	NL	NL	NL	NL		NL	NL	NL	NL		15	38	7			0	0	1	0.5	1	0	0	1	1	4		4	5	15	2	2	2	4
84	Murrumbidgee	50				10	50				15	5	100	81			0	0	0	0	6	45	30				6	4			3	3	3	2
85	Murrurundi	100		100	100	4	100		100	100	5	15	7	22	23	15	7	0	0	0	19	7	5		0	0.4			3	3			2	2
86	Muswellbrook	100		100	100	20	100		100	100	30	124	181	175	100	129	98	0.7	0.2	1	48	57	52		13	8	77	108	115	111	1	1	2	1
87	Nambucca	92	100	97	92	20	91	100	88	96	30	36	30	46	1	6	46	2	2	3	8	7	12	0	0.2			4	3		1	2	1	1

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	WATER UTILITY	ENVIRONMENTAL																LEVELS OF SERVICE																					
		BOD					SS					Sewer Main Chokes & Collapses see Col(24) Table 15			Sewer Overflows to the Environment see Col(25) Table 15			Odour Complaints			Service Complaints			Average Customer Outage Time			Customer Interruption Frequency				Average Duration of Interruption									
		DEC Discharge Licence Compliance (%) (55)				90 %-ile Limit (mg/L) (56)	DEC Discharge Licence Compliance (%) (57)				90 %-ile Limit (mg/L) (58)	(per 100 km of Main) (59)			(per 100 km of Main) (60)			(per 1000 properties) (61)			(per 1000 properties) (62)			(mins/property-unplanned) (63)			(per 1000 properties) (64)				(hours) (65)									
		2000/01	2001/02	2002/03	2003/04	2003/04	2000/01	2001/02	2002/03	2003/04	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2001/02	2002/03	2003/04	2000/01	2001/02	2002/03	2003/04	2000/01	2001/02	2002/03	2003/04
88	Narrabri	74		94	80	20	74		67			577	266	155	17	7	0	5	6	2	154	97	95								3	4	3
89	Narrandera	100	100	100	100	15	83	50	50	42	20	112	157	25		6	11	0	0	0.6	41	41	42	4	4		30	5	35		2	2	2	2
90	Narromine	NL	NL	NL	NL		NL	NL	NL	NL								0.5	2	0	3	6	5											
91	Nundle	No SGE																																
92	Oberon	100										45	42	26			11	0		0			12				3	3			2	2	2	3
93	Orange	96	92	92	95	20	96	92	92	95	25	91	65	80	3		8	0.4	0	0.1	26	26	34								2	1	2	2
94	Parkes	50				20	33				25	62	54	69	48	71	85	2	1	1	12	12	14								1	1	1	1
95	Parry	100	75	75			40	40	40				6	16			0	0.9	0	0	3	3	4								2	1	1	1
96	Pristine Waters	100	100		100	15		100		67	20		25	0		25	0	2	0	0	2	2	4											
97	Queanbeyan	100	100	100	100	10	98	100	100	100	20	109	109	122			0	0	0	0	21	20	22				3				2	3	3	3
98	Quirindi	93		100	100	20	61		15	15	30	41	33	33	3	3	3	2	0	0	17	15	15		0	0.2	10	4	4	3	1	1	1	*1*
99	Richmond Valley	100		100	100	20	77		88	91	30	9	9	9	1	2	2	2	2	2	8	7	7		1		4	5	3	3	3	5	3	
100	Riverina	No SGE																																
101	Rous	No SGE																																
102	Rylstone	100		100	100	20			100	79	30	71	95	119	73	95	0	3	0		77	82	74					1				1	1	2
103	Scone	100	100	100	100	20	100	100	100	100	30	94	98	68		24	28	2	0	0.7	46	47	36	5	5				261		2	2	0	2.8
104	Severn	83					75						0	0			0	0	0	0	0	0	0											
105	Shoalhaven	95	92	98	100	40	85	86	96	93	40	36	26	32	5	7	27	1	0.6	0	17	16	16									2	2	2
106	Singleton	100	100	100	100	30	100	100	100	100	30	4	8	33		1	0	0	1	1	6	6	13	3	3	3	16	16	16	16	3	3	3	3
107	Snowy River	92		96	100	15	81		91	100	20	7	7	7	4	4	4	0.9	6	6		15	15								2	2	2	*2*
108	Sydney Water	100					99						85	73			73		1	1													1	
109	Tallaganda	92	75	75	92	20	83	58	58	75	30	89	207	7	7		52	0		8			26			2	63	64		30	2	2	4	1
110	Tamworth	74	96	96	100	30	94	90	90	79	25	4	28	45	3	5	20	1	0	0.1	34	35	30									2	2	2
111	Temora			100	100	20			75	95	30	7	250	599	10		449	0	0	0	49	51	80		0	0.3	51	51	1	2	2	2	2	2
112	Tenterfield	100		96	100	40	88		42	90	45	109	140	111			0	0	0	0	46	58	48		2	4	4		17	48	3	2	2	2
113	Tumbarumba	98					92					75	72	53			0	0	0	0	37	37	17	1	1	1		11	11	2	2	2	2	4
114	Tumut	100	100	94	88	40	100	100	98	95	45	22	190	99	2	13	0	0.2	0	1	57	64	48								5	5	5	5
115	Tweed	99		97	97	15	92		96	96	20	12	5	8	2	7	4	2	0.4	1	7	5	6		6	3	26	37	37	23	3	3	3	3
116	Uralla	100	100	100	100	15	100	100	100	100	20	32	14	14	32	14	14	1	0	0	11	11	8	0	0.5	0.5	13	17	4	4	2	2	2	2
116-A	Urana												0	33	7		7	25	0	14	11	0	4			0				7				1.0
117	Wagga Wagga	96		100	100	20	89		93	90	30	335	152	94	8	8	4	0.3	0.1	0	88	101	85		8	5	78	95	88	72	3	1	2	1
118	Wakool	NL	NL	NL	NL		NL	NL	NL	NL			0	0			0		0	0		0	0											
119	Walcha	75	92	92	100	20	50	42	42	83	30	38	7	14	41	28	28	0	0	0	11	10	10	2.6	3	1	3	33	21	5	1	2	2	2
120	Walgett												4				0	0	0		2	2									1			
121	Warren	100				20	100			100	65	270		473			0	0	0				5								3	2		
122	Weddin	100					100					7	149	64			0	0	0	1	44	47	19	5	6				47		2	3	2	2
123	Wellington	100	100	100	100	15	90	50	50	50	30	138	79	100	19	5	145	2	2	0	23	20	26	2	2		37	37	33		1	2	1	1
124	Wentworth			100	100	50			100	100	50	31	0	33			0	2	1	2	0	1	14								2	2	2	2
125	Wingecarribee	100	100	100	96	10	100	100	100	98	15	50		46			1	0	0.2	1	43	35	30											4
126	Wyong	NL	NL	NL	NL		100	100	100	100	35	32	46	42		0	0	0.8	0.1	0	8	10	10								2	2	2	2
127	Yallaroi	98			100	20				20	30	180		198	5		45			3	68		74			6				33	2	2		*3*
128	Yarrowlumla	91	100	100	100	10	100	100	100	100	15	24	18	6			0	1	0	0	8	8	3									4		
129	Yass Valley	100	100	100	100	30	100	100	100	100	30	64	62	83			1	0	0	0	44	44	58								3	3	3	3
130	Young	100		92	100	30	91		75	83	30	156	73	50	156	10	8	2	0	0	52	43	44		1	1	236	201	15	24	1	1	1	1

Table 17 - Sewerage - Environmental, Levels of Service

	WATER UTILITY	ENVIRONMENTAL																LEVELS OF SERVICE															
		BOD					SS					Sewer Main Chokes & Collapses see Col(24) Table 15			Sewer Overflows to the Environment see Col(25) Table 15			Odour Complaints			Service Complaints			Average Customer Outage Time			Customer Interruption Frequency				Average Duration of Interruption			
		DEC Discharge Licence Compliance (%) (55)				90 %-ile Limit (mg/L) (56)	DEC Discharge Licence Compliance (%) (57)				90 %-ile Limit (mg/L) (58)	(per 100 km of Main) (59)			(per 100 km of Main) (60)			(per 1000 properties) (61)			(per 1000 properties) (62)			(mins/property-unplanned) (63)			(per 1000 properties) (64)				(hours) (65)			
		2000/01	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2001/02*	*2002/03*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*	*2000/01*	*2001/02*	*2002/03*	*2003/04*
131	Albury City	100	100	96	85		98	96	65	58		78	83	187	11	22	37	0.5	0.0	0.4		28	40				0	0			3	3	2	2
132	Clarence Valley	88	*97*	93	90		88	*77*	75	86			46	23			22	6	0.7	1.0		28	17				4	0			4	3		
133	Coffs Harbour	100	100	100	100		100	100	100	100		57	87	81	57	52	47	1	2	3		40	37				0	0			2	2		
134	Corowa	83	80	80	80		42	40	40	40		59	15	38	0		7	0.9	2	3		26	31				0	0			4	2		4
135	Glen Innes Severn	100	100	100	100		100	100	100	100		*7*	12	17	1		8	0.0	0.0	0.4		11	17				0	0			2	0		
136	Goulburn Mulwaree	75	83	83	90		50	92	92	70		55	37		43			0.1	0.0	3		62	78				0	0			2	1		
137	Greater Hume				***90***					*100*		52	36	39	1		3	0.0	***0.0***	0.0		22	25				1	0			15	6		4
138	Gwydir			***100***	100					52		114		119	12		30	***0.0***	***0.0***	8			49				0	2			3	4		6
139	Liverpool Plains	96		92	***100***		56		28	*15*		28	24	28	3		2	1	0.0	0.0		11	11				6	3			2	2	2	2
140	Mid Western Regional	100	*100*	100	100		*95*	*100*	100	96		43	54	54	22	32	8	0.6	0.0	***0.0***		38	32				35	36			1	2	2	3
141	Palerang	91	92	92	97		94	86	86	92		42	71	6	2		15	***0.0***	***0.0***	3			11				21	21			2	6		
142	Tamworth Regional	*77*	*96*	97	100		95	*90*	92	81		34		65			17	1	0.0	0.1		39	33				3	1			5	5	4	5
143	Upper Hunter	100	*100*	100	100		100	*100*	96	90		102	90	67		26	32	1	0.0	0.6			30				1	1			3	3	3	5
144	Upper Lachlan	100	100	100	100		100	100	100	100		2	28	63	0		2	0.0	1.0	0.0		22	0				0	0			3	4	3	
145	Warrumbungle	83	75	75			83	42	42					64			0	3	0.0	0.0		50	43				0	0			0	0		2

Table 18 - Sewerage - Benchmarking Cost Data (Operating, Management, Wholesale/retail)

	WATER UTILITY	OPERATING COST								MANAGEMENT COST			RETAIL/WHOLESALE		PUMPING COST						SEWER MAIN COST				TREATMENT COST			
		Components (1)				Components (2)				Components			Components		Components						Components				Components			
		Maintenance	Operation	Energy	Chemicals	Mains	Pumping Stations	Sewage Treatment	Other	Administration	Engineering & Supervision	Total	Wholesale	Retail	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	Energy Cost	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Chemical
		($/property)				($/property)				($/property)		(c/kL)	($/property)		(c/kL)	($/pumping station)				($/property)	(c/kL)	($'000/100km)			($/ML)	($/property)		
		(66)	(67)	(68)	(69)	(70)	(71)	(72)	(73)	(74)	(75)	(76)	(77)	(78)	(79)	(80)	(81)	(82)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)
		2003/04				2003/04				2003/04		2003/04	2003/04		2003/04	2003/04				2003/04	2003/04	2003/04			2003/04	2003/04		
1	Albury	64	58	20	10	23	36	74	19	88	23	46	74	59	15	14519	2173	10077	2269	6	9	106	16	90	302	25	11	10
2	Armidale Dumaresq	102	69	8	3	55	0	125	2	89	42	55	125	55		2000		1000	1000		23	179		179	529		45	3
3	Ballina	108	69	32		28	87	86	6	111	3	39	86	115	29	9709		8155	1555	14	9	115	1	115	290	62	7	
4	Balranald	63	32	13	9	32	76	9		45		14	9	108	23	4833		4000	833	13	10	63	63		28			9
5	Barraba	162	62	13	3	20	84	138		70	54	57	138	103	38	12750	750	10250	1750	11	9	43		43	632	57	75	3
6	Bathurst Regional	49	58	22	8	35	9	91	3	54	45	37	91	44	3	7333	267	5400	1667	2	13	128	11	117	339	38	11	8
7	Bega Valley	60	152	17		45	91	93		174	25	103	93	136	47	16981	12370	3370	1241	7	23	152	79	74	480	59	20	
8	Bellingen	63	100	23	15	17	50	131	4	85	71	58	131	67	19	5185	2296	1963	926	9	6	63	15	48	485	52	28	15
9	Berrigan		128			56		66	5	31	56	54	66	56							34	162	162		408	66		
10	Bingara																											
11	Bland	139	34	13		45		141		23	19	27	141	45							29	169	82	87	917		116	
12	Blayney		156	21		10	52	22	92	125	9	73	22	62	28	12167	10333		1833	8	5	23	23		120			
13	Bogan	38	18	7		7	30	24	3	126		44	24	37	10	7250	2750	3250	1250	5	2	34		34	82		14	
14	Bombala	21	75	15		13	32	66		56		25	66	46	14	4800	2800	1200	800	5	6	29		29	288	47		
15	Boorowa	55	91	8		32	26	94		2	23	14	94	58	16	7000		6000	1000	4	19	87		87	556	91		
16	Bourke	211	11	19		34	141	11	55	94	46	75	11	175	75	25714		22286	3429	19	18	126		126	58	11		
17	Brewarrina	147	216	21		115	113	156		15		4	156	229	29	6625	4000	1375	1250	21	30	331		331	406	147	9	
18	Australian Inland	121	6	7		53	23	57		40	28	47	57	77	16	20100		17269	2831	3	37	237		237	394	5	47	
19	Byron	87	185	30	30	21	79	193	40	107	53	52	193	100	26	9358	3358	4272	1728	15	7	84	0	83	632	74	15	30
20	Cabonne	31	78	11		12	60	48		15	23	29	48	71	46	13400	7800	4300	1300	6	9	47		47	370	43		
21	Carrathool	136	23	12		77	31	39	23	26	12	30	39	108	24	2167		1750	417	6	61	332		332	307		33	
22	Central Darling	114	6	9		99	23		6					123	8	2000		1250	750	9	34	257		257				
23	Central Tablelands				**No SGE**																							
24	Cobar	167	28	10		19	16	54	117		10	3	54	35	6	6750		6250	500	1	7	43	43		191		35	
24-A	Cobar WB				**No SGE**																							
25	Coffs Harbour	46	147	27	6	24	68	105	28	70	37	36	105	92	23	13275	8618	2922	1735	9	8	86	44	42	359	42	18	6
26	Coolah	160		13		54		119		22	13	11	119	54							18	138		138	388		106	
27	Coolamon	32	82	9		15	17	90		22	25	53	90	32	19	2800		2800			17	38		38	1014	82		
28	Cooma-Monaro	102	120	23	10	70	25	149	12	35	75	70	149	94	16	10714	1000	8714	1000	2	44	93	35	58	948	62	27	10
29	Coonabarabran	36	131	29		60	12	87	36		151	66	87	72	5	2250			2250	12	26	103	42	61	385	58		
30	Coonamble	89	61	13		30	50	82		2		1	82	81	25	5583	2500	1667	1417	13	15	79		79	402	38	44	
31	Cootamundra	32	60	26	3	21	13	87		23	21	18	87	34	5	17000		15000	2000	2	9	104		104	363	26		3
32	Copmanhurst	204	24	26			24	210	20	138		63	210	24	11	2200		1800	400	4					966		164	
33	Corowa	78	83	13		29	39	85	20	20	55	34	85	68	17	2783		2043	739	10	13	119		119	381	58		
34	Cowra	34	27	8		21	15	33		101	13	50	33	36	7	7286	3571	1857	1857	4	9	75		75	145	20	9	
35	Crookwell	52	142	19		13	61	131	9	24	17	17	131	73	26	10500	4500	3167	2833	16	5	39	9	30	551	111	17	
36	Culcairn	31	63	15		15	19	74		44		25	74	34	11	2500		2100	400	3	8	56		56	412	63		
37	Deniliquin	171		14		130	7	48		100		37	48	137	3	870		174	696	5	48	569		569	179		40	
38	Dubbo	46	191	13	2	32	30	102	87	83	30	56	102	62	15	59857	26000	25000	8857	5	15	131	102	29	503	68	24	2
39	Dungog	76	85	20		41	30	105	5	22	67	40	105	71	13	7750		6000	1750	7	18	145	81	64	470	57	34	
40	Eurobodalla	37	167	24	6	41	68	73	53	110		65	73	109	40	9281	5438	2165	1678	12	24	150	110	40	432	45	11	6
41	Fish River WS				**No SGE**																							
42	Forbes	103	102	12	1	42	12	164		23	8	14	164	53	5	2375	688		1688	8	18	112		112	729	98	62	1
43	Gilgandra	14	84	4		10	51	41		38	4	18	41	61	22	5231	3692	1154	385	4	4	38	29	9	176	41	1	

Table 18 - Sewerage - Benchmarking Cost Data (Operating, Management, Wholesale/retail)

	WATER UTILITY	OPERATING COST								MANAGEMENT COST			RETAIL/WHOLESALE		PUMPING COST						SEWER MAIN COST				TREATMENT COST			
		Components (1)				Components (2)				Components			Components		Components						Components				Components			
		Maintenance	Operation	Energy	Chemicals	Mains	Pumping Stations	Sewage Treatment	Other	Administration	Engineering & Supervision	Total	Wholesale	Retail	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	Energy Cost	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Chemical
			($/property)				($/property)			($/property)		(c/kL)	($/property)		(c/kL)	($/pumping station)				($/property)	(c/kL)	($'000/100km)			($/ML)	($/property)		
		(66)	(67)	(68)	(69)	(70)	(71)	(72)	(73)	(74)	(75)	(76)	(77)	(78)	(79)	(80)	(81)	(82)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)
		2003/04				*2003/04*				*2003/04*		*2003/04*	*2003/04*		*2003/04*	*2003/04*					*2003/04*	*2003/04*			*2003/04*	*2003/04*		
44	Glen Innes	2	77	5			36	48		40	21	26	48	36	16	32000	30667	1333							207	42		
45	Gloucester	128	84	18		75	51	104		27	32	36	104	126	31	9429	2857	5286	1286	7	46	233		233	636	63	25	
46	Goldenfields (Bulk)				**No SGE**																							
47	Goldenfields (Retic)				**No SGE**																							
48	Goldenfields (Comb)				**No SGE**																							
49	Gosford	66	33	14		32	37	44		109	23	56	44	69	16	12978	1592	8614	2772	8	13	145	19	126	186	12	14	
50	Goulburn	36	87	10		30	20	83		65	60	67	83	50	11	16000	8583	5750	1667	2	16	127	5	123	443	41		
51	Grafton																											
52	Griffith	1	233			38	70	77	49	70	52	34	77	108	20	21125	21125				11	107	107		215	77		
53	Gundagai	77	94	9	7	15	38	134		36	13	40	134	53	31	8250	3250	3250	1750	8	12	18	10	8	1105	55	55	7
54	Gunnedah		84	8		33	16	42	1	14	10	15	42	49	10	32500	23000		9500	5	20	136	136		257	39		
55	Gunning	134	67	18		49	22	129	18	4		9	129	71	45	5000		3000	2000	9	99	85	38	46	2606	13	94	
56	Guyra		134	23	8	37	1	127		27	55	47	127	38	1	500			500	1	21	75	75		721	93		8
57	Harden	8	136	3		24	1	122		38	31	35	122	25	1						12	51	51		618	105	7	
58	Hastings	77	99	24	5	24	55	99	27	70	24	35	99	79	21					10	9				372	17	33	5
58-A	Hawkesbury	145	28	21		24	57	105	9	115	39	47	105	81	17	17333		11000	6333	21	7	101	7	94	318	6	87	
59	Hay	41	122	20		41	55	85	2	59	13	24	85	96	18	9714	7000	1286	1429	8	14	134	91	43	282	55	19	
60	Holbrook	23	134	11		23	15	130		40	40	35	130	38	7	5000	2500		2500	8	10	86		86	578	14		
61	Hume	19	119			22	77	39		46	77	74	39	99	46	5500	4889	611			13	51	36	15	234	35	4	
62	Hunter Water																											
63	Inverell	32	68	17		32	18	67		39	36	45	67	50	11	3857	2762		1095	5	19	118		118	403	55		
64	Jerilderie	157				15	56	99		41	46	40	99	70	25	4600		3600	1000	12	7	71		71	455		99	
65	Junee	141	23	17		22		159	1	36	19	32	159	22							13	36		36	926		119	
66	Kempsey	106	106	23	8	65	55	122	2	47	48	43	122	119	25	5897	1833	2859	1205	11	29	222	13	210	551	66	18	8
67	Kyogle	32	138	12	7	24	40	126		56	34	82	126	63	36	7375	4875	1500	1000	5	21	93		93	1136	112		7
68	Lachlan	26	93	13		20	26	78	8	20	31	18	78	46	9	2750	2200	200	350	3	7	64		64	275	65	3	
69	Leeton	170		10		40	63	76		69	5	22	76	103	19	6133		5333	800	8	12	143		143	227		75	
70	Lismore	85	104	19	18	52	34	90	49	33	18	17	90	87	12	12212	394	9424	2394	7	18	186	52	134	303	26	20	18
71	Lithgow	115	12	16		27	22	93		36	5	19	93	49	11	5344		4094	1250	5	13	57		57	441		71	
72	Lockhart	61	21	14		7	17	59	14	9	83	52	59	23	10	2167		2167			4	20		20	332	7	38	
73	North Coast Water				**No SGE**																							
74	Maclean	157		19		22	51	103		41	64	52	103	73	25	5571		4548	1024	9	11	91		91	509		94	
75	Manilla	53	131	11		25	22	148		272		129	148	47	10	8000	4000	3000	1000	3	12	94	7	87	700	106	22	
76	Merriwa	142	6	4		25	21	106		32	66	79	106	47	17	10000	2000	7000	1000	2	21	70		70	862	2	102	
77	MidCoast (Manning)																											
78	MidCoast (Great Lakes)																											
79	MidCoast (Combined)	129	74	30	7	37	63	86	54	85		40	86	100	30	9495	1964	4827	2704	18	18	124	16	108	406	14	35	7
80	Moree Plains	126	49	35		37	59	81	33	163	3	46	81	96	16	9423	1308	6308	1808	11	10	179	6	173	226	5	52	
81	Mudgee	156	14	7		62	18	97		101		44	97	80	8	10875		8750	2125	4	27	206	47	159	423		94	
82	Mulwaree	121		16		16	33	88					88	49	99	1667		833	833	16	50	66		66	2673		88	
83	Murray	97		16		16	83	14		41	44	32	14	99	31	4778		3944	833	14	6	36		36	53		13	
84	Murrumbidgee	52	3	13		20	27	21			56	27	21	46	13	1583		1167	417	7	9	67		67	100		13	
85	Murrurundi	17	49	30		14	12	63	7		3	1	63	26	5	3500		500	3000	10	6	58	7	51	267	44		
86	Muswellbrook	90	111	23	1	36	65	124		30	32	22	124	101	22	27000	3727	19909	3364	8	12	121	42	79	428	56	19	1

Table 18 - Sewerage - Benchmarking Cost Data (Operating, Management, Wholesale/retail)

	WATER UTILITY	OPERATING COST								MANAGEMENT COST			RETAIL/WHOLESALE		PUMPING COST						SEWER MAIN COST				TREATMENT COST			
		Components (1)				Components (2)				Components			Components		Components						Components				Components			
		Maintenance	Operation	Energy	Chemicals	Mains	Pumping Stations	Sewage Treatment	Other	Administration	Engineering & Supervision	Total	Wholesale	Retail	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	Energy Cost	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Chemical
			($/property)				($/property)			($/property)		(c/kL)	($/property)		(c/kL)	($/pumping station)				($/property)	(c/kL)	($'000/100km)			($/ML)	($/property)		
		(66)	(67)	(68)	(69)	(70)	(71)	(72)	(73)	(74)	(75)	(76)	(77)	(78)	(79)	(80)	(81)	(82)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)
		2003/04				*2003/04*				*2003/04*		*2003/04*	*2003/04*		*2003/04*	*2003/04*				*2003/04*	*2003/04*	*2003/04*			*2003/04*	*2003/04*		
87	Nambucca	93	44	23		14	35	68	41	77	26	42	68	50	14	4163		2735	1429	12	6	54		54	277		55	
88	Narrabri	48	38	25	9	32	45	42	1	22	63	27	42	77	14	7455	864	3864	2727	17	10	119	80	39	134	10	14	9
89	Narrandera	34	147	19		48	40	95	16	39	45	27	95	88	13	17000	13750	2000	1250	3	15	228	171	56	309	54	17	
90	Narromine		104	6		2	40	52	15	101	53		52	42		6385	5462		923	6						52		
91	Nundle				**No SGE**																							
92	Oberon	125	103	18	22	73	18	166	11	5	53	22	166	90	7	7000	4000	667	2333	6	28	249		249	637	86	40	22
93	Orange	29	69	19	14	27	13	91		59	27	26	91	40	4	17000	10273	4818	1909	1	8	97	34	63	275	40	8	14
94	Parkes	18	90	3	3	32		79	2	16	11	10	79	32							12	157	121	36	294	54	11	3
95	Parry	24	87	9		8	19	93		30	22	38	93	27	14	7333	4000	1333	2000	5	6	48	5	43	682	63	14	
96	Pristine Waters	105	266	52	28	7	26	417		26	18	22	417	33	13	2800		1800	1000	9	4	22		22	2091		81	28
97	Queanbeyan	128	9	11	5	77	10	65		26	48	34	65	87	5	11846		8692	3154	3	36	427		427	306		43	5
98	Quirindi	101	7	12		9	30	73	7	29	6	16	73	39	14	4375		3875	500	3	4	30		30	345		65	
99	Richmond Valley	67	91	14		31	48	80	13	118	30	50	80	79	16	9188	6625	1188	1375	7	10	109		109	273	56	17	
100	Riverina				**No SGE**																							
101	Rous				**No SGE**																							
102	Rylstone	23	168	21	8	23	15	162	19	23	106	64	162	38	8	4000	3000		1000	4	11	58		58	797	137		8
103	Scone	45	65	18		40	18	68	1	103	24	42	68	59	6	7000	5571	1429			13	127		127	224	43		
104	Severn	58		5		5	39	19		63	19	129	19	44	61	4000		3500	500	5	8	14		14	303		19	
105	Shoalhaven	32	144	15	5	34	49	80	34	100	26	67	80	83	26	8700	5305	2133	1261	7	18	119	83	37	425	44	9	5
106	Singleton	85	43	14		48	15	75	3	20	30	21	75	64	6	5071	643	4357	71	0	21	138	22	116	319	30	31	
107	Snowy River	23	78	24	9	20	45	71		62	1	45	71	65	32	8647	3941	2176	2529	13	14	88	71	17	499	42	8	9
108	Sydney Water												0	0														
109	Tallaganda	124	132	10	8	30	53	191		12	33	28	191	83	33	8667		7667	1000	6	19	111		111	1197	132	47	8
110	Tamworth	70	132	5		57	12	94	44	31	34	21	94	69	4	14167	2333	8417	3417	3	19	211	60	151	309	60	22	
111	Temora	55	77	6		12	3	124		26		14	124	15	2	3000		3000			6	132	132		650		52	
112	Tenterfield		128	11	3	35	12	96		136	68	107	96	46	6	4250	3750		500	1	18	83	83		503	84		3
113	Tumbarumba	104	30	4		28		110		59		21	110	28							10	60	60		385	2	104	
114	Tumut	48	130	21		25	29	121	24	16	66	31	121	54	11	7429	500	5929	1000	4	9	71		71	453	105		
115	Tweed	97	69	24	2	34	56	92	10	80	19	32	92	90	18	8057	1695	4931	1431	10	11	146		146	301	35	28	2
116	Uralla	18	85	21	9	18	5	108	2	33	82	78	108	23	3	1250	750	250	250	1	12	64	42	21	728	67	11	9
116-A	Urana																											
117	Wagga Wagga	11	82	12	13	33	21	49	14	33		12	49	54	7	13111	10139	1722	1250	2	12	135	100	35	172	25		13
118	Wakool	58	91	23		17	68	76	10	41	60	127	76	86	86	4500	1929	1714	857	13	22	31	2	29	955	51	15	
119	Walcha	63	78	21		30	18	93	21	31	7	15	93	48	7	14000	6000	3000	5000	7	12	81		81	378	50	29	
120	Walgett	72	60	13		19	38	80	8	29	53	21	80	57	10	6111	1778	2778	1556	10	5	52		52	203	41	36	
121	Warren	163		12		62	44	69		26	29	24	69	107	19	4500		4000	500	5	27	309		309	298		61	
122	Weddin	31	50	3		12		51	21	8	19	15	51	12							6	39		39	281	48		
123	Wellington	62	85	6		35	31	87	0	47	41	51	87	66	18	6727		5909	818	4	20	195		195	496	43		
124	Wentworth	58	112	20		28	88	63	11	43	18	17	63	116	24	5200	1560	2600	1040	18	7	54	42	12	169		2	
125	Wingecarribee	58	73	17	16	36	37	87	4	96	12	49	87	72	17	7917	3717	1367	2833	13	16	105		105	398	47	16	16
126	Wyong	87	68	12		42	57	63	4	45	19	32	63	100	28	22231	7000	13252	1979	5	21	206	73	132	314	32	24	1
127	Yallaroi	176		18		20	30	127	17		49	18	127	50	11	4500		3750	750	5	8	54		54	475		114	
128	Yarrowlumla																											
129	Yass Valley	19	134	18	4	29	29	116		59	29	38	116	58	12	8143	6143	571	1429	5	13	83	47	36	503	85	4	4
130	Young		98	5	1	22	6	48	28	5	11	7	48	28	3	4000	2800		1200	2	10	73	73		215	44		1

Table 18 - Sewerage - Benchmarking Cost Data (Operating, Management, Wholesale/retail)

	WATER UTILITY	OPERATING COST								MANAGEMENT COST			RETAIL/WHOLESALE		PUMPING COST						SEWER MAIN COST				TREATMENT COST			
		Components (1)				Components (2)				Components			Components		Components						Components				Components			
		Maintenance	Operation	Energy	Chemicals	Mains	Pumping Stations	Sewage Treatment	Other	Administration	Engineering & Supervision	Total	Wholesale	Retail	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Energy Cost	Energy Cost	Total O&M Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Total O&M Cost	Operation Cost	Maintenance Cost	Chemical
			($/property)				($/property)			($/property)		(c/kL)	($/property)		(c/kL)	($/pumping station)				($/property)	(c/kL)	($'000/100km)			($/ML)	($/property)		
		(66)	(67)	(68)	(69)	(70)	(71)	(72)	(73)	(74)	(75)	(76)	(77)	(78)	(79)	(80)	(81)	(82)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)
		2003/04				*2003/04*				*2003/04*		*2003/04*	*2003/04*		*2003/04*	*2003/04*					*2003/04*	*2003/04*			*2003/04*	*2003/04*		
131	Albury City	64	58	20		23	36	74		88	23		74	59		14519	2173	10077				106	16	89		25	11	
132	Clarence Valley			8		7							48	25														
133	Coffs Harbour	47	148	27	6	24	67	108		69	37		108	92		13170		2910	1728	9		85		41			19	6
134	Corowa	66	90	10		28	47	76		26	60		76	75		3353		1743				98		87		53		
135	Glen Innes Severn	5		5		0	37	46		41	21		46	37		30040		1485										
136	Goulburn Mulwaree	39		10		30	21	83					83	50		15570		5603	1642	3		126		121				
137	Greater Hume	27	92	11		18	27	84		43			84	46		3680						62		54		45		
138	Gwydir			9		10							62	25														
139	Liverpool Plains	71	36	12		9	25	79			11		79	34		5299		2834	1145	4		36		35				
140	Mid Western Regional	132	42	9		55	18	109		87			109	72		9638			1923	4		174		137				
141	Palerang			3		10							63	28														
142	Tamworth Regional	72	129	6		52	16	100		50			100	68		13615	2460	7983	3173	3		187		137		64	24	
143	Upper Hunter	54	56	17		35	18	72			26		72	53		6935		2032				112		111		38		
144	Upper Lachlan	67	128	19		19	54	131	10	21			131	73		9510		3137	2683	15		52	17	35		93	31	
145	Warrumbungle	78		24		58		98			104		98	66								112		80				

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APPENDIX A

ARMCANZ PERFORMANCE COMPARISONS 1991/92 to 2003/04

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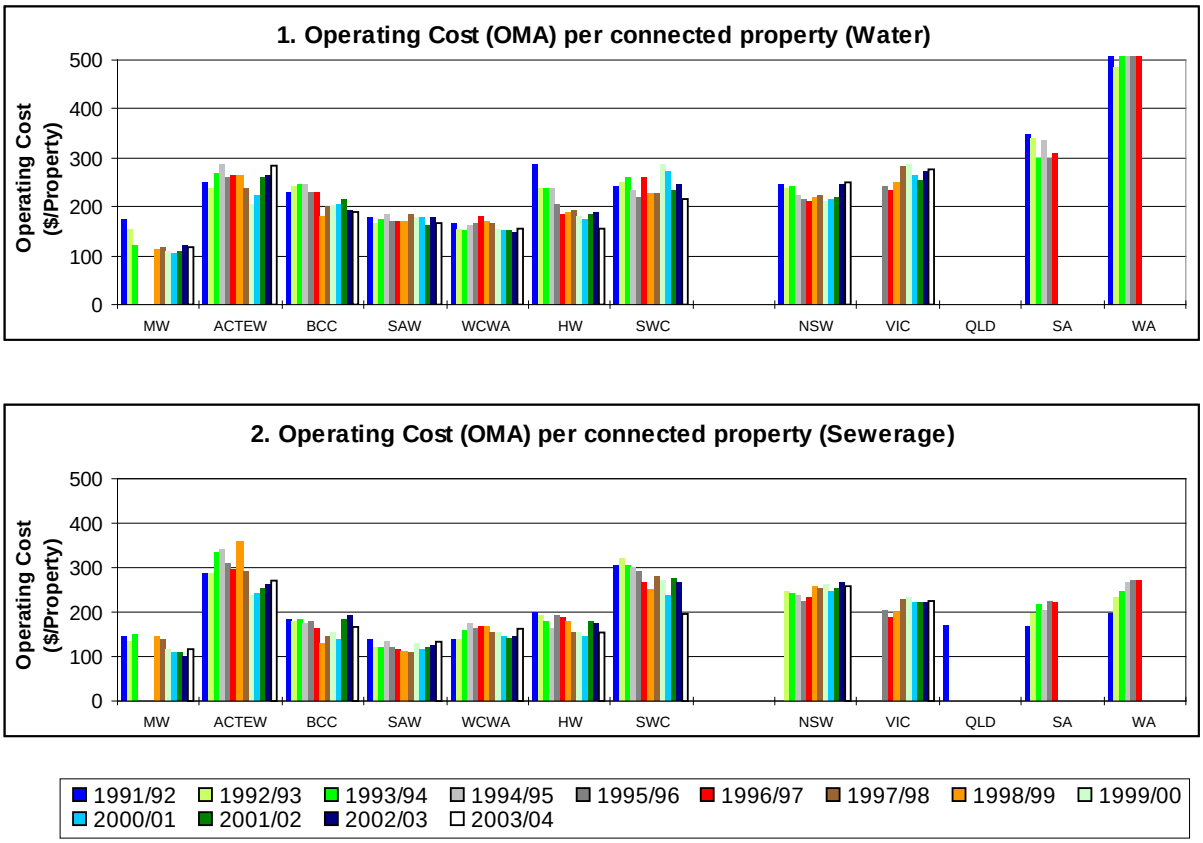
Water Supply and Sewerage Services



Metropolitan Water Utilities

MW	Melbourne Water Consolidated*
ACTEW	ACT Electricity and Water
BCC	Brisbane City Council
SAW	SA Water Corporation (Adelaide)
WCWA	WA Water Corporation (Perth)
HW	Hunter Water Corporation
SWC	Sydney Water Corporation

Country Water Utilities

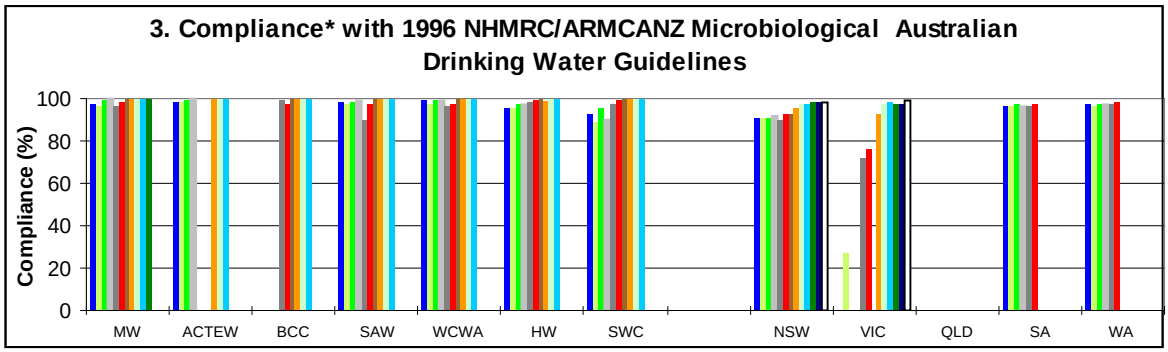
NSW	NSW Country
VIC	VIC Country
QLD	QLD Country
SA	SA Country
WA	WA Country

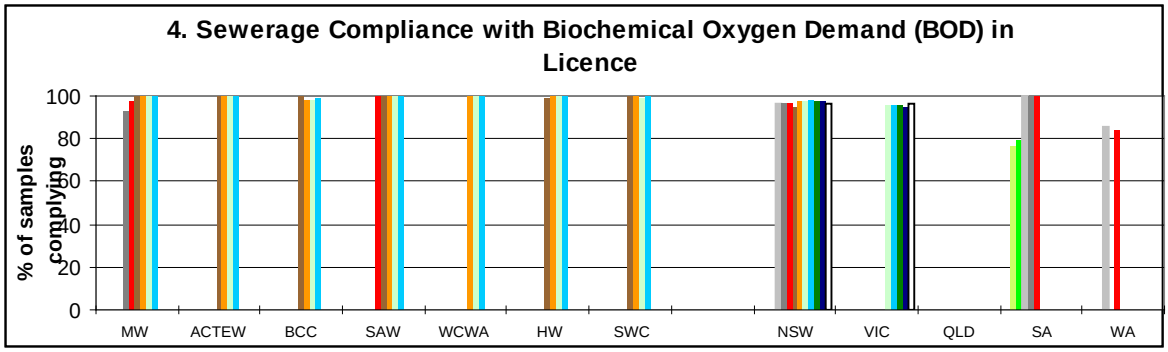
** Melbourne Water was disaggregated into 4 constituent utilities in 1994. Melbourne Water Consolidated results shown for 1994/95 to 2003/04 are either aggregated results of the constituent utilities or consolidated results reported in WSAA Facts (see note 2) or reported in Urban Water Review (see note 3).*

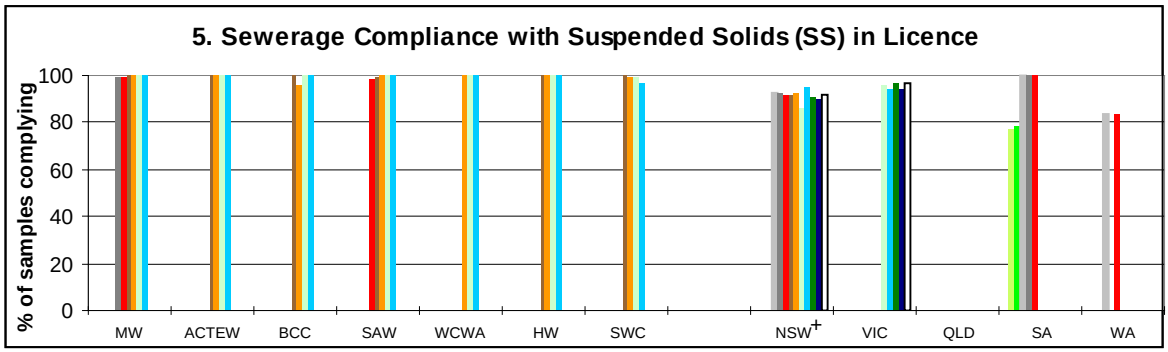
NOTES:

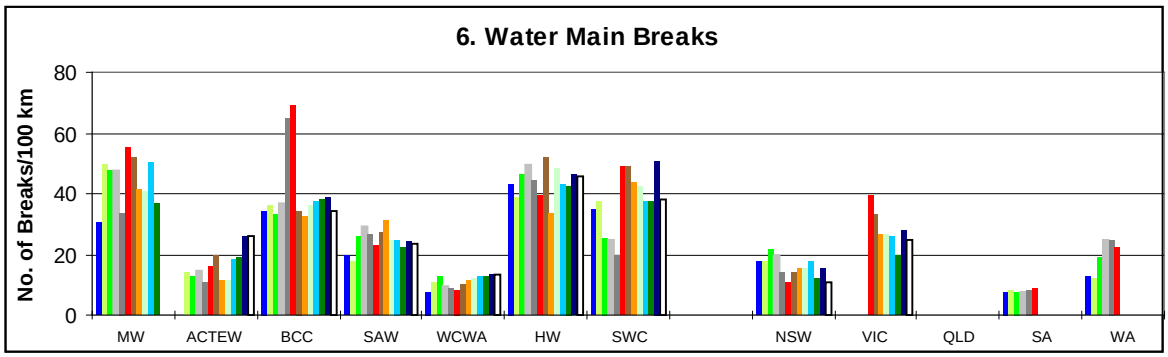
1. Operating Cost (OMA) is the Operation, Maintenance and Administration Cost in 2003/04$.
2. Results for the metropolitan water utilities for 1994/95 to 2003/04 obtained from "The Australian Urban Water Industry - WSAA Facts 2004", and "The Australian Urban Water Industry - WSAA Facts 1999", Water Services Association of Australia.
3. Results for Victoria for 1996/97 to 2003/04 obtained from *"Urban Water Review 2003/2004"*, and "Urban Water Review 1998", Victorian Water Industry Association.
4. Results for SA Country and WA Country for 1990/91 to 1996/97 obtained from *"Government Trading Enterprises Performance Indicators 1992/93 to 1996/97" and "1990/91 to 1994/95"*, Steering Committee on National Performance Monitoring of Government Trading Enterprises, April 1998.

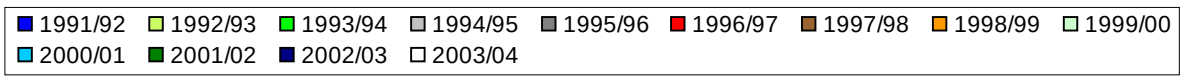
Water Supply and Sewerage Services







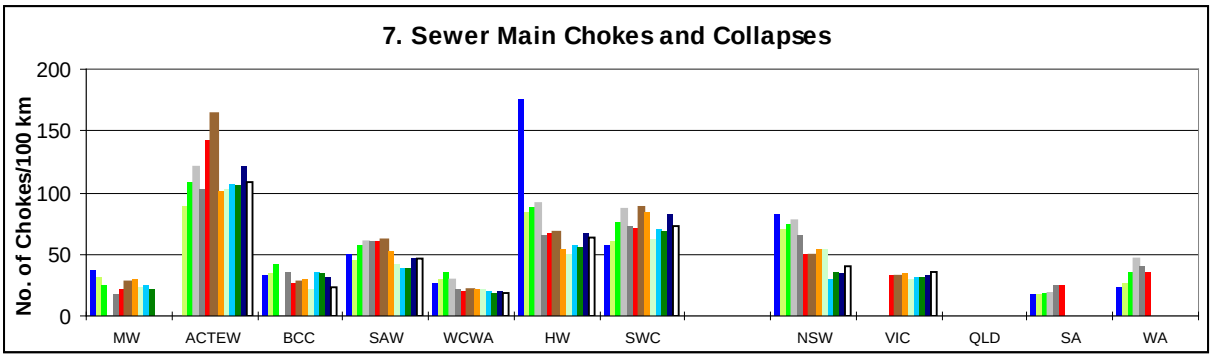


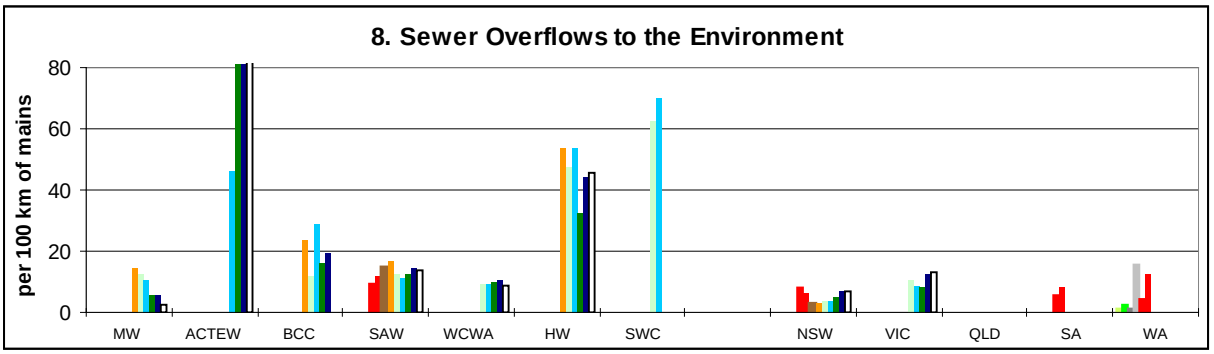


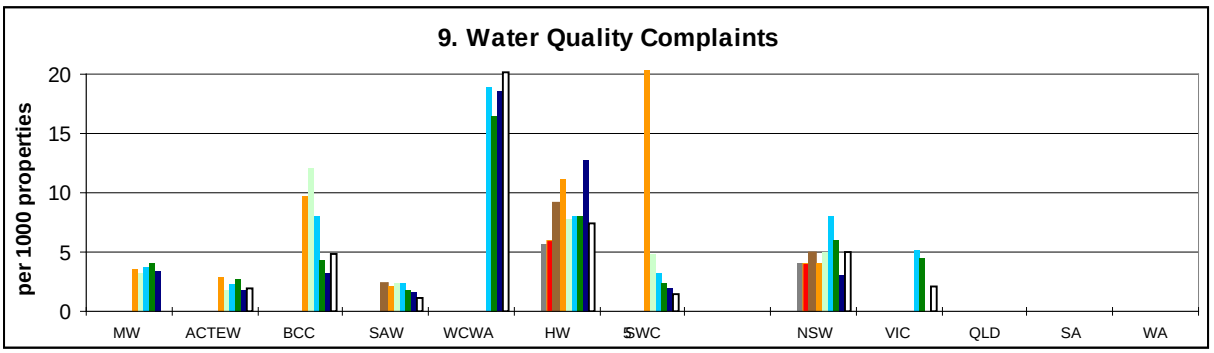
* 1990/91 to 1997/98 results are generally on the basis of the 1987 NHMRC/AWRC Drinking Water Quality Guidelines. 1998/99 and subsequent results are generally on the basis of E. coli in the more stringent 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines. The exceptions are Victorian country utilities where results are on the basis of the less stringent 1984 World Health Organisation Guidelines and Melbourne Water where the results are on the basis of E.coli in the above 1987 Guidelines.

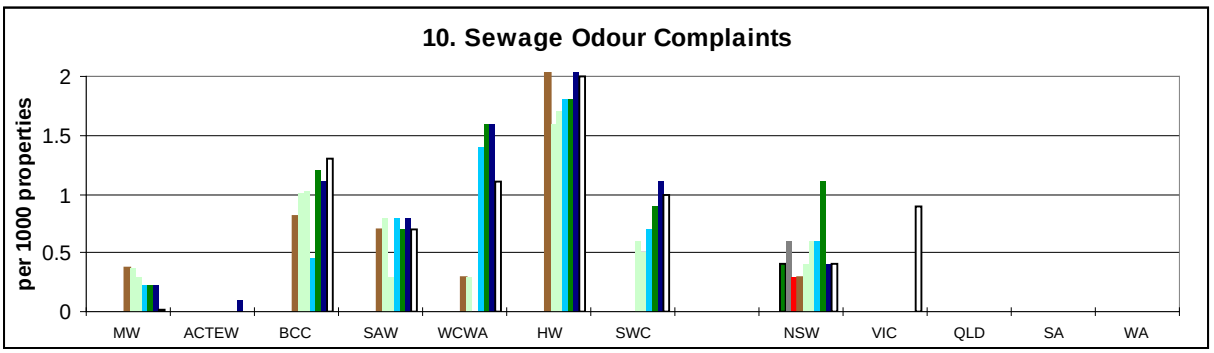
\+ The major cause of non-compliance is due to the growth of algae in maturation ponds being measured as suspended solids (SS). Most treatment works in non-metropolitan NSW have maturation ponds due to previous Department of Environment and Conservation (DEC) preference for ponding over chlorination. Negotiations with the DEC to develop an appropriate licencing method when maturation ponds are used for disinfection have favoured an option to test for SS prior to the maturation ponds. For new installations and major augmentations, Ultra Violet (UV) disinfection is being used rather than maturation ponds to overcome this problem.

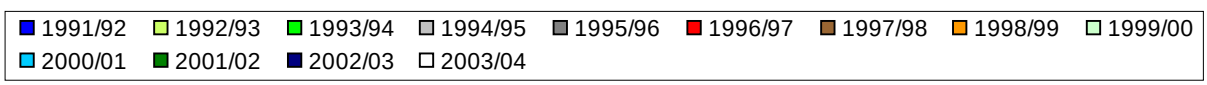
Water Supply and Sewerage Services



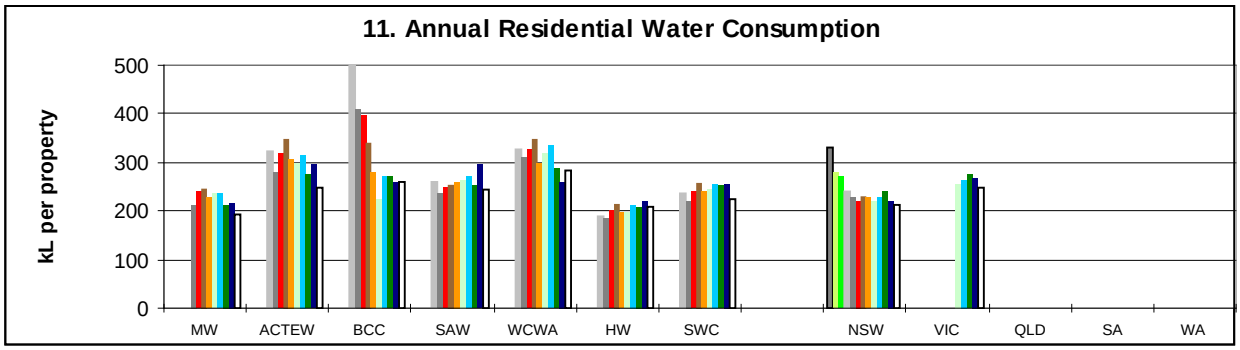


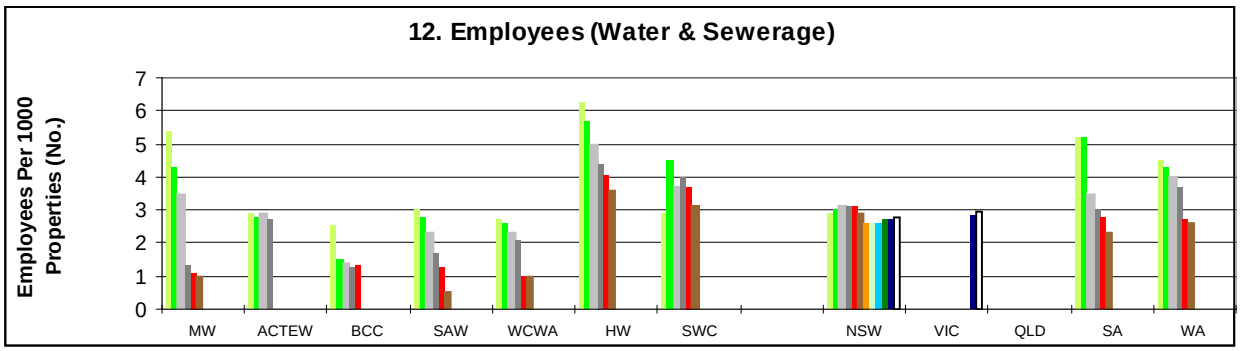


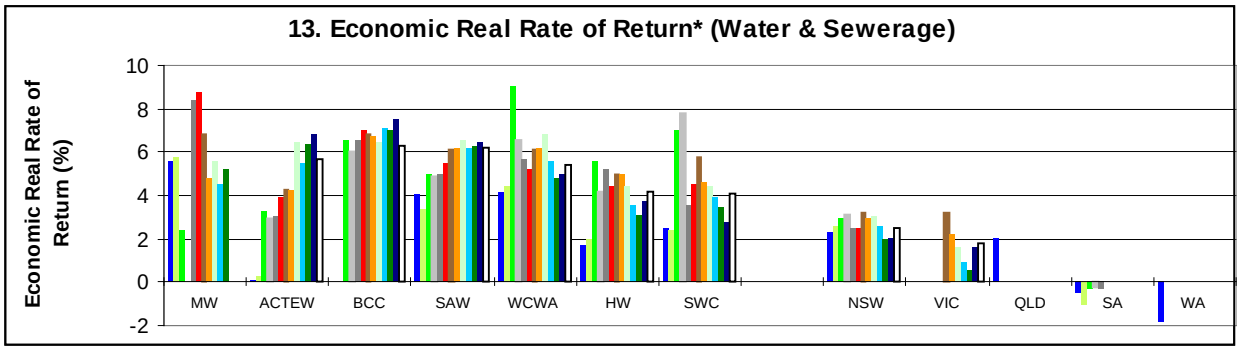


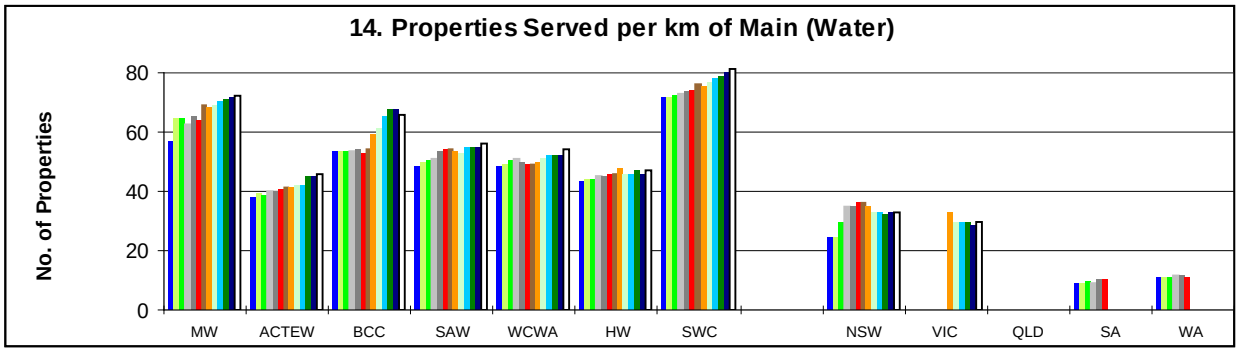


Water Supply and Sewerage Services

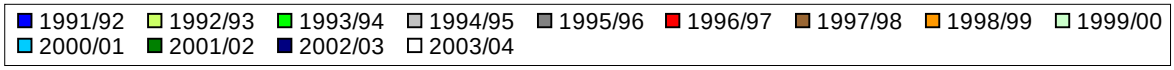




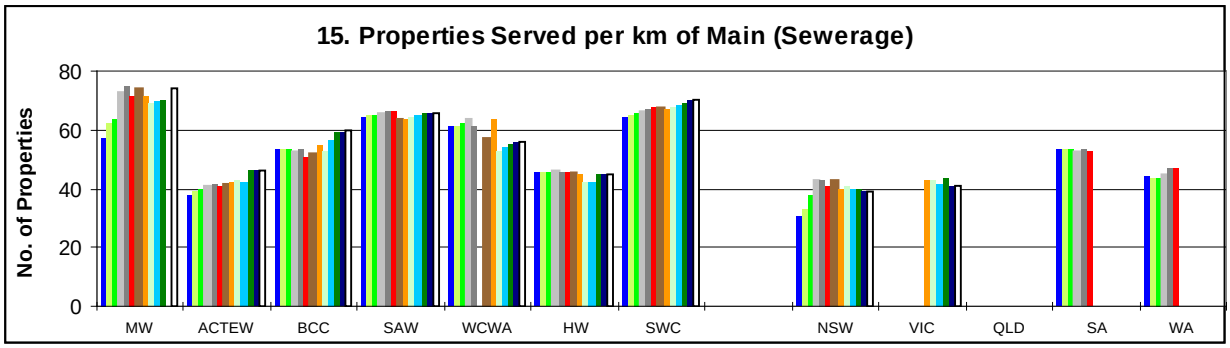


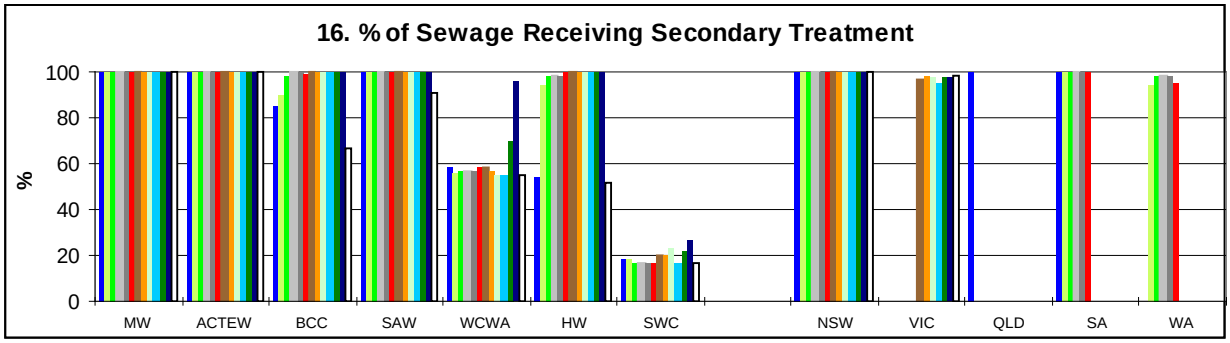


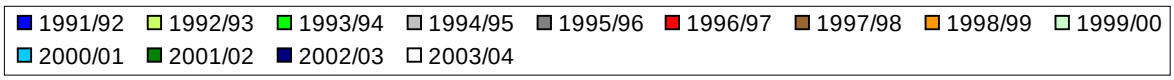
* As the economic real rate of return (ERRR) was only reported by Country NSW in 2001/02 to 2003/04, the reported values for 'return on assets' have been shown in graph 13 for all the other utilities for these years.



Water Supply and Sewerage Services







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APPENDIX B

NSW ANNUAL WATER SUPPLY AND SEWERAGE REPORTING FORMS

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ANNUAL WATER REPORT FOR 2003/04

Local Water Utility (LWU)

WATER SUPPLY BUSINESS

POPULATION AND DWELLINGS

1 **Population Served:** Permanent[3]: persons Peak: persons

2 **Residential Properties Connected:** a. No. of Single Dwellings[1]: No. b. No. of Multiple Dwellings[2]: No.

c. Average No. of Properties per Multiple Dwelling: No.

3 **Non-Residential Properties Connected:** No.

4 **Assessments:** Residential[3]: No. Non-Residential[3]: No.

5 **Premises Metered:** Residential: No. Non-Residential: No.

6 **New Residential Dwellings Connected in year:** No.

7 **Unserved Urban Premises** *(in Council Area):* Premises: No. Population: persons

ASSETS EMPLOYED

8 **Water Supply Assets:**

		Capacity			Capacity			Capacity
Service Reservoirs:	No.	ML	Dams:	No.	ML	Treatment Works:	No.	ML/d
Pumping Stations:	No.	ML/d	Weirs:	No.	ML	Bores:	No.	ML/d

9 **Delivery Capacity into Reticulation:** Total: ML/d

10 **Length of Mains:** Trunk Mains: km Reticulation: km Total Length[3]: km

11 **Rehabilitations This Year:** Length of Mains Rehabilitated: km Service Connections Rehabilitated: No.

ANNUAL WATER CONSUMPTION

12 **Annual Potable Consumption:** *(Potable supply only. For non-potable water component see Q14)*

AUTHORISED CONSUMPTION

a. Residential[3]: ML
b. Commercial: ML
c. Industrial: ML
d. Rural: ML
e. Institutional: ML
f. Bulk Sales: ML
g. Public Parks: ML

WATER LOSSES

Water Losses[3,4] *(h. from box at right):* ML

TOTAL POTABLE WATER SUPPLIED

i. Total Potable Water Supplied[3] *(items a. to g. + item h.)*: ML

WATER LOSSES

Apparent Losses

Unbilled Unmetered: (firefighting, mains flushing): ML
Unauthorised Consumption: ML
Under-registration of Customer Meters: ML
j. Total Apparent Losses: ML

Real Losses

k. Real Losses (Leakage)[4]: ML

Water Losses[4]

h. Apparent Losses + Real Losses (items j.+k.): ML

REVENUE & NON REVENUE WATER

Revenue Water (Potable)

Billed Metered: ML
Billed Unmetered: ML
l. Total Revenue Water: ML

Non Revenue Water (Potable)

Unbilled Metered: ML
Water Losses (from item h.): ML
m. Total Non Revenue Water: ML

Revenue Water + Non Revenue Water

n. Total (items l.+ m.) *(should equal item i.)*: ML

13 **Peak Potable Consumption:** Peak Day: ML/d Peak Week: ML/d

14 **Non-Potable Water Supplied:** Total: ML Residential: ML *as part of Non-potable Supply*
(Note: Includes recycled water (Q15f) and untreated water)

WATER RESOURCES

15 **Source Usage & Yield:**

SOURCE USAGE

a. LWU's Off-stream Dams: ML
b. LWU's On-stream Dams: ML
c. Run-of-River Pumping (without off-stream dam): ML
d. River Release (from Ministry dams): ML
e. Groundwater: ML
f. Recycled Water: ML
g. Bulk Purchases (filtered): ML
h. Bulk Purchases (unfiltered): ML
i. Total Water Usage (sum a to h): ML

YIELD

(The yield is the annual demand that could be met for the critical drought. The yield is not the present demand.)

k. Surface Water: ML/a
l. Ground Water: ML/a
m. Recycled Water: ML/a
n. Bulk Purchases: ML/a
o. Total Yield of Sources: ML/a

j. Environmental Releases: ML *(from LWU's dams or weirs to downstream waterways)*

16 **Bulk Purchases:** Source (Supply Scheme): Price: c/kL

17 **Climate** **Rainfall:** 2003/04 Rainfall: mm Average Annual Rainfall: mm

2003/04 Temperatures: Average Daily Maximum: °C Average Daily Minimum: °C

FINANCIAL

- Financial data is provided by Council in Special Schedule No.3 to its Financial Statement. This data includes amounts under the item "Operation and Maintenance Expenses". Please break-up the total under this item into "headworks" and "distribution and reticulation" components.

18 **Operation and Maintenance Expenses:** Headworks[5] Component: % of total O & M Expenses

Distribution and Reticulation Component: % of total O & M Expenses

Notes Indicates the reader should refer to the definition of this item in Attachment 1.

1 This comprises all single dwellings (detached houses, duplexes with 2 connections or townhouses with a connection for each townhouse) with a separate connection to your Local Water Utility's (LWU) water supply reticulation.

2 This comprises only those multiple dwellings with a single connection, eg.a block of flats or a group of townhouses with a single connection to your LWU's water supply reticulation.

3 Indicates you should provide an estimate in this box of the accuracy and reliability of the data according to the following confidence grades: 1 (accuracy within ± 1%), 2 (± 5%), 3 (±10%), 4 (± 25%), 5 (± 50%), 6 (±100%), 7 (not within ± 100%). For further information see Attachment 1.

4 If Water Losses are less than 10% or Leakage is less than 6% of Total Water Consumption, this data should be carefully re-examined as Statewide analysis has found these to be the minimum values for other than bulk water suppliers.

5 Headworks include dams, bores, water treatment works and associated mains, tunnels and pumping stations.

(see over)

LEVELS OF SERVICE

19 Water Quality Complaints: *(Report the number of water quality complaints for each treatment works at item 46)*

20 Water Service Complaints: Water Service Complaints Reported: ____ No.

Common Water Service Complaints: ____

21 Not used

22 Billing Complaints: No. of Billing Complaints: ____ No.

23 Other Complaints: No. of Other Complaints: ____ No. *(other than quality, service or billing complaints)*

24 Written Complaints: No. of Written Complaints: ____ No. No. of Responses to Written Complaints: ____ No.

25 Unplanned Interruption to Supply: No. of Properties Affected[3]: ____ No. ____ *(Properties affected by an unplanned interruption to supply. Include each occurrence of interruption.)*

26 Average Time taken to Restore an Interrupted Supply[3]: ____ hr ____

27 No. Days of Water Restrictions Due to Drought: ____ days

28 Breaks/Failures: Pipeline Breaks[3]: ____ No. ____ Service Connection Failures[3]: ____ No. ____

ENERGY/EMPLOYEES/DEMAND MANAGEMENT/DEVELOPER CHARGES

29 Energy Usage[3]:

Total Energy Usage[3]: ____ MWh ____

Renewable Energy Usage: ____ MWh *(component of Total Energy Usage)*

30 Employees: Equivalent Full-time Employees (Total): ____ No. *(Include water supply business staff engaged in operation, maintenance and management including billing. Include equivalent contractor staff. Exclude staff engaged on design and construction.)*

Female Employees *(Full-time Equivalent)*: ____ No.

Employees Undergoing 2 of more Days of Training During the Year: ____ No.

31 Days Lost: Total No. of Days Lost in Year: ____ days *(Include employee days lost for all reasons eg. industrial disputes, sick leave, carer's leave, industrial accidents)*

No. of Confirmed Injuries in Year: ____ No. *(Include injuries that resulted in a fatality, permanent disability or time lost from work of one day or more)*

No. of Days Lost due to Injuries in Year: ____ days *(Include time lost from work of one day or more due to injury)*

Injuries and days lost are for staff engaged in operation, maintenance and management including billing and include equivalent contractor staff. Exclude injuries or days lost for staff engaged on design and construction.)

32 Demand Management Initiatives Implemented

Customer Education Program: ____ Yes/No Effluent or Stormwater Reuse: ____ Yes/No Retrofit Program: ____ Yes/No

Leakage Reduction Program: ____ Yes/No Rebates for Water Efficient Appliances: ____ Yes/No

Rebates for Rainwater Tanks: ____ Yes/No Maximum Rainwater Tank Rebate: ____ $ Customer Billing Period: ____ Months

Other Demand Management Initiatives (please indicate): ____

33 to 35 - Not used

36 Typical Developer Charge: For 2004/05: $ ____ per ET (Equivalent Tenement) For 2003/04: $ ____ per ET

2003/04 WATER QUALITY AND TREATMENT WORKS PERFORMANCE

If no water treatment works, complete Table as far as practicable. For businesses with 2 or more water treatment works, show details on copies of this page.

37 Water Treatment Works : Name: ____ Capacity: ____ ML/d

38 Type of Treatment Works: ____ Volume Treated[3]: ____ ML ____

		Max	Avge		Max	Avge
39 Colour Units:	Raw Water			Treated Water		
40 Turbidity Units:	Raw Water			Treated Water		

41 Chemical Usage per year: Alum: ____ t Alkali: ____ t Chlorine: ____ t Fluoride: ____ t

42 Percentage Test Compliance With 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines: *(Percent of No. of Samples)*

Physical and Chemical:	a. Physical:	____ % of	____ samples	c. Chemical:	____ % of	____ samples
Key Characteristics:	e. Turbidity:	____ % of	____ samples	g. pH:	____ % of	____ samples
	i. Colour:	____ % of	____ samples			
Microbiological:	k. E.coli:	____ % of	____ samples	m. Total Coliforms:	____ % of	____ samples

42A Qualification of Operators *(eg. DEUS Certificate)*: ____

43 Common Reasons for Less than 100% Test Compliance: ____

44 Number of Days Chlorination System failed to Operate[3]: ____ days ____

45 No. of Days of Major Malfunction of Treatment Processes[3]: ____ days ____ *(This is the number of days in the year when a significant portion of the treatment works was either not operating (other than routine maintenance) or not functioning properly.)*

46 Water Quality Complaints: *(Include all complaints whether phone, verbal, fax, email or letter)*

No. of Water Quality Complaints reported from customers served by this treatment works [3]: ____ No. ____ *(A complaint is any expression of dissatisfaction with the water quality provided. It does not include complaints regarding service, pressure, restrictions etc.)*

Common Water Quality Complaints for this treatment works: ____

Notes Indicates the reader should refer to the definition of this item in Attachment 1.

3 ____ Indicates you should provide an estimate in this box of the accuracy and reliability of the data according to the following confidence grades: 1 (accuracy within ± 1%), 2 (± 5%), 3 (±10%), 4 (± 25%), 5 (± 50%), 6 (±100%), 7 (not within ± 100%). For further information see Attachment 1. For other notes see front page.

Report Completed by: _____ Signature: _____ Date: _____ Tel: _____

ANNUAL SEWERAGE REPORT FOR 2003/04

Local Water Utility (LWU)

SEWERAGE BUSINESS

POPULATION AND DWELLINGS

1 **Population Served:** Permanent[3]: persons Peak: persons

2 **Residential Properties Connected:** a. No. of Single Dwellings[1]: No. b. No. of Multiple Dwellings[2]: No.

c. Average No. of Properties per Multiple Dwelling: No.

3 **Non-Residential Properties Connected:** No.

4 **Assessments:** Residential[3]: No. Non-Residential[3]: No.

5 **New Residential Dwellings Connected in year:** No.

6 **Unserved Urban Premises** *(in Council Area):* Premises: No. Population: persons

7 **Area Sewered (ie. catchment):** ha

ASSETS EMPLOYED

8 **Sewage Treatment Works:** No. Total Capacity: EP

9 **Pumping Stations:** No. Total Capacity: ML/d

10 **Length of Mains:** Reticulation/gravity: km Rising mains: km Total Length[3]: km

11 **Rehabilitations This Year:** Length of Mains Rehabilitated: km House Connections Rehabilitated: No.

SEWAGE COLLECTED

12 **Volumes of Sewage:**

a. Infiltration/Inflow[3]: ML

b. Residential Sewage[3]: ML

c. Non-residential Sewage[3]: ML

d. Trade Waste[3]: ML

e. Total Transported through Sewerage Network[3]: ML *Note: This should equal sum of Q39 for all STWs*

12A **No. of Large Trade Waste Dischargers** *(>20 kL/d per discharger)[3]:* No.

12B **Discharges from Large Trade Waste Dischargers** *(>20 kL/d per discharger):* Maximum Day volume: kL/d

Equivalent BOD Load EP Equivalent SS Load: EP

13 **Treated Sewage Effluent Discharges:** Ocean Discharges: ML River Discharges: ML

Land Discharges: ML

LEVELS OF SERVICE

14 **Sewage Odour Complaints:** *(Report the number of odour complaints for each treatment works at item 54.)*

15 **Sewage Service or Choke Complaints Reported[3]:** No.

16 **Common Service Complaints:**

17 **Not Used**

18 **Billing Complaints:** No. of Billing Complaints: No.

19 **Other Complaints:** No. of Other Complaints: No. *(other than odour, service, chokes or billing complaints)*

20 **Sewer Overflows to the Environment[3]:** No. *(Record any overflow/surcharge in LWU sewers, access chambers and pumping stations. Count each access chamber, pumping station etc. overflow as one overflow. Exclude overflows in sewer risers and sidelines (house connections) and at customers' gully traps).*

21 **Sewer Main Chokes and Collapses[3]:** No. *(Sewer Main Chokes and Collapses are confirmed partial or total blockages in LWU sewer reticulation mains resulting in an interruption to the sewerage service or overflow of a customer's gully trap. Exclude blockages in sewer risers and sidelines (house branch connections) or customers' internal drains.)*

22 **Sewer Main Chokes Attended to Within 5 hr:** No.

23 **Chokes in House Branch Connections:** No. *(Record blockages in your LWU's sewer risers and sidelines (house branch connections) up to the customers' gully traps. Exclude blockages in customers' house drains (internal drains).)*

24 **Chokes in House Drains:** No. *(Record blockages in customers' internal drains (house drains).)*

25 **Properties Affected by an Unplanned Interruption to Service[3]:** No. *(Include each occurrence of interruption)*

26 **Average Time to Restore an Interrupted Service[3]:** hr

27 **Pipe Breaks (Rising Mains Only)[3]:** No.

Indicates that the reader should refer to the definition of this item in Attachment 1.

For other notes see overleaf

(see over)

ENERGY/EMPLOYEES/DEVELOPER CHARGES

28 Energy Usage[3]: Total Energy Usage[3]: _____ MWh ☐

Renewable Energy Usage: _____ MWh *(component of Total Energy Usage)*

29 Employees: Equivalent Full-time Employees (Total): _____ No. *(Include sewerage business staff engaged in operation, maintenance and management including billing. Include equivalent contractor staff. Exclude staff engaged on design and construction.)*

Female Employees *(Full-time Equivalent)*: _____ No.

Employees Undergoing 2 of more Days of Training During the Year: _____ No.

30 Days Lost:

Total No. of Days Lost in Year: _____ days *(Include employee days lost for all reasons eg. industrial disputes, sick leave, carer's leave, industrial accidents)*

No. of Confirmed Injuries in Year: _____ No. *(Include injuries that resulted in a fatality, permanent disability or time lost from work of one day or more)*

No. of Days Lost due to Injuries in Year: _____ days *(Include time lost from work of one day or more due to injury)*

(Injuries and days lost are for staff engaged in operation, maintenance and management including billing and include equivalent contractor staff. Exclude injuries or days lost for staff engaged on design and construction.)

31 to 35 - Not Used

36 Typical Developer Charge: For 2004/05: $ _____ per ET (Equivalent Tenement) For 2003/04: $ _____ per ET

2003/04 TREATMENT WORKS PERFORMANCE

For businesses with 2 or more Sewage Treatment Works show details on copies of this page.

37 Sewage Treatment Works Name: _____ Capacity: _____ EP

38 Type of Treatment Works: _____

Nitrogen Removal (Yes/No): _____ Phosphorus Removal (Yes/No): _____

39 Volume Received through Sewerage Network[3]: _____ ML ☐

40 Tankered Flows: Septic Tank Effluent: _____ kL Septic Tank Sludge/Pan: _____ kL Grease Trap Waste: _____ kL

41 Volume of Sewage Receiving Treatment: *(Tertiary treatment involves disinfection of the effluent. The processes used for tertiary treatment may also polish the effluent (eg. sand filtration reduces BOD and SS) or reduce nutrients (eg. breakpoint chlorination).)*

a. No Treatment[3]: _____ ML ☐ b. Primary[3]: _____ ML ☐

c. Secondary[3]: _____ ML ☐ d. Tertiary[3]: _____ ML ☐

(eg. 200ML received through sewerage network with 95% treated to tertiary level and 5% untreated would have Q41a:10, Q41b:190, Q41c:190 and Q41d:190)

42 Volume Recycled: *(Refers to recycled effluent for watering of golf courses etc. and excludes internal recycling within the treatment works.)*

a. Woodlots, pasture Improvement: _____ ML b. Horticulture, viticulture: _____ ML

c. Golf courses: _____ ML d. Non-potable town supply: _____ ML

e. Other: _____ ML f. Total (sum 42a to 42e): _____ ML

Note: Q42d should be consistent with Q15f of the Water Supply Reporting Forms

43 Biosolids

Biosolids Produced[3]: a. dry solids: _____ t ☐

Biosolids reused/recycled[3]: b. % recycled: _____ % ☐

Biosolids Management: c. to farmland: _____ % d. to land fill: _____ % e. to other: _____ %

44 Average Dry Weather Flow: Permanent Population: _____ L/s Peak Population: _____ L/s

45 Peak Dry Weather Flow: Permanent Population: _____ L/s Peak Population: _____ L/s

46 Peak Wet Weather Flow: Maximum Volume Received in 24 hours: _____ ML Maximum Flow Received in 1 hour: _____ L/s

47 Qualification of Operators *(eg. DEUS Certificate)*: _____

48 DEC Discharge Licence Expiry Date: _____

49 Effluent Volume Licensed: _____ ML/d

50 90 Percentile Licence Limits: *(LWUs which have only 100% limits should report on the basis of the 100% values.)*

a. BOD mg/L	b. SS mg/L	c. Total N mg/L	d. NH3N mg/L	e. Oil & Grease mg/L	f. Total P mg/L	g. E.Coli cfu/100mL

51 Percentage of Samples Complying with 90 Percentile Licence Limits at Licensed Point of Discharge:

a. _____ % b. _____ % c. _____ % d. _____ % e. _____ % f. _____ % g. _____ %

(Results for SS should be the measured values for effluent at the licensed point of discharge. The effluent should not be filtered to remove algae prior to testing.)

52 Sampling Days (including DEUS Sampling Days)[3]: _____ days ☐

53 Days with Major Malfunction of Treatment Processes[3]: _____ days ☐

(This refers to the number of days in the year when a significant portion of the treatment works was either not operating (other than routine maintenance) or not functioning properly (odours, loss of MLSS etc).)

54 Sewage Odour Complaints: *(Include all complaints whether phone, verbal, fax, email or letter)*

Odour complaints for this treatment works[3]: _____ No. Odour complaints for pumping stations within the catchment of this treatment works: _____ No.

Notes ☞ Indicates that the reader should refer to the definition of this item in Attachment 1.

1 This comprises all single dwellings (detached houses, duplexes with 2 connections or townhouses with a connection for each townhouse) with a separate connection to your Local Water Utility's (LWU) sewerage reticulation.

2 This comprises only those multiple dwellings with a single connection, eg.a block of flats or a group of townhouses with a single connection to your LWU's sewerage reticulation.

3 ☐ Indicates you should provide an estimate in this box of the accuracy and reliability of the data according to the following confidence grades: 1 (accuracy within ± 1%), 2 (± 5%), 3 (±10%), 4 (± 25%), 5 (± 50%), 6 (±100%), 7 (not within ± 100%). For further information see Attachment 1.

Report Completed by: _____ Signature: _____ Date: _____ Tel: _____

2003/04 - TBL ACCOUNTING SUPPLEMENT - WATER SUPPLY

Local Water Utility (LWU)

A global trend in business practices encourages the reporting of activities in accordance with "triple bottom line" (TBL) accounting, which is a framework incorporating financial, environmental and social activities. This methodology provides a more complete picture of the performance of a business than provided by conventional annual financial reporting. This supplement provides additional environmental and social information to that included in the NSW water supply and sewerage performance reporting forms. Further information on each item and examples of environmental and public health incidents are provided in Attachment 3.

ENVIRONMENTAL PERFORMANCE - Water Supply

An environmental management plan (EMP) is a necessary part of ensuring compliance with environmental objectives. The EMP is a structured management system for improving environmental performance which is integrated with a water utility's overall management activities. The environmental policy is the driver for implementing and improving the EMP so that the Local Water Utility (LWU) can maintain and improve environmental performance. Guidelines for environmental management systems are provided in International Standard ISO 14001 - *Environmental Management Systems - Specification with guidance for use* .

1 Environmental Incidents

This performance indicator provides a mechanism for assessing the number of physical disturbances caused to the environment (ie. environmental incidents), with some attempt to quantify the impact of the incidents. The result therefore reflects the environmental impact plus the effectiveness of the utility's risk management strategies.

Category 1 - minor incident with inconsequential effects ____ No. of Incidents

(a reportable incident, but not a breach of environmental regulations; an instance of odour or noise complaints)

Category 2 - incident with limited environmental impacts ____ No. of Incidents

(a minor breach of environmental regulations eg. non-maintenance of the required environmental flows)

Details: ____

Category 3 - major incident with irreversible environmental impact ____ No. of Incidents

(a major breach of environmental regulations eg. dam failure or widespread or permanent ecosystem damage)

Details: ____

2 Environmental Management Systems

This indicator provides a reflection of the level of sophistication or readiness of an LWU's environmental management and its commitment to remediation programs.

Environmental Management Plan (EMP) Prepared? ____ Yes/No

EMP developed in consultation with Catchment Management Board ____ Yes/No

% Progress Towards International Standard ISO 14001 Certification: ____ % (100% is Certified)

Environmental Consultative Processes in Place? ____ Yes/No

3 Environmental and Health Improvements (Capital Works and Innovation)

This indicator recognises the need to shift the focus away from purely compliance-based reporting towards active environmental improvement and innovation.

Capital Investment on Improving Environmental Performance: ____ $ ('000)

Capital Investment on Improving Health Performance: ____ $ ('000)

4 Office Waste Recycling

This indicator recognises the need to maximise recycling of office waste.

Office waste recycled: ____ (%)

SOCIAL PERFORMANCE - Water Supply

5 Public Health Incidents

This performance indicator provides a mechanism for assessing the number of incidents where there is risk to public health, with some attempt to quantify the impact of the incidents. The result reflects not only the health risk which can be attributed to an LWU's operations but also the effectiveness of the LWU's risk management strategies.

Category 1 - minor incident with inconsequential effects ____ No. of Incidents

(eg. minor failure of water treatment processes; "boil water" notice issued as a result of failure of treatment processes)

Category 2 - incident with limited health impacts ____ No. of Incidents

(eg. extended non-compliance with health-related parameters of the 1996 Australian Drinking Water Guidelines)

Details: ____

Category 3 - major incident with major health impacts ____ No. of Incidents

(eg. water borne disease outbreaks and/or hospitalisations)

Details: ____

6 Employment Initiatives

This indicator recognises an LWU's commitment to address long-term unemployment in the community and increase community skills.

Hours of employment provided to long-term unemployed people: ____ Hours

Number of identified long-term unemployed engaged: ____ Persons

7 Outsourcing

This performance indicator reports the LWU's percentage expended on outsourcing of each of management cost, operation cost and maintenance cost.

Percentage expended as outsourcing: Management Cost: ____ % Operation Cost: ____ % Maintenance Cost: ____ %

8 Gifts, Grants and Fee Reductions

This performance indicator reports the value of gifts, grants and fee reductions provided to community organisations.

Gifts and grants to community organisations: ____ $ ('000)

Reduction in fees and charges (in comparison with standard non-residential charges): ____ $ ('000) *(Exclude pensioner rebates)*

2003/04 - TBL ACCOUNTING SUPPLEMENT - SEWERAGE

Local Water Utility (LWU)

A global trend in business practices encourages the reporting of activities in accordance with "triple bottom line" (TBL) accounting, which is a framework incorporating financial, environmental and social activities. This methodology provides a more complete picture of the performance of a business than provided by conventional annual financial reporting. This supplement provides additional environmental and social information to that included in the NSW water supply and sewerage performance reporting forms. Further information on each item and examples of environmental and public health incidents are provided in Attachment 3.

ENVIRONMENTAL PERFORMANCE - Sewerage

An environmental management plan (EMP) is a necessary part of ensuring compliance with environmental objectives. The EMP is a structured management system for improving environmental performance which is integrated with a water utility's overall management activities. The environmental policy is the driver for implementing and improving the EMP so that the Local Water Utility (LWU) can maintain and improve environmental performance. Guidelines for environmental management systems are provided in International Standard ISO 14001 - *Environmental Management Systems - Specification with guidance for use* .

1 Environmental Incidents

This performance indicator provides a mechanism for assessing the number of physical disturbances caused to the environment (ie. environmental incidents), with some attempt to quantify the impact of the incidents. The result therefore reflects the environmental impact plus the effectiveness of the utility's risk management strategies.

Category 1 - minor incident with inconsequential effects ____ No. of Incidents

(a reportable incident, but not a breach of environmental regulations; an instance of odour or noise complaints)

Category 2 - incident with limited environmental impacts ____ No. of Incidents

(a minor breach of environmental regulations eg. a sewer overflow)

Details: ____

Category 3 - major incident with irreversible environmental impact ____ No. of Incidents

(a major breach of environmental regulations eg. a major sewer overflow or widespread or permanent ecosystem damage)

Details: ____

2 Environmental Management Systems

This indicator provides a reflection of the level of sophistication or readiness of an LWU's environmental management and its commitment to remediation programs.

Environmental Management Plan (EMP) Prepared? ____ Yes/No

EMP developed in consultation with Catchment Management Board ____ Yes/No

% Progress Towards International Standard ISO 14001 Certification: ____ % (100% is Certified)

Environmental Consultative Processes in Place? ____ Yes/No

3 Environmental and Health Improvements (Capital Works and Innovation)

This indicator recognises the need to shift the focus away from purely compliance-based reporting towards active environmental improvement and innovation.

Capital Investment on Improving Environmental Performance: ____ $ ('000)

Capital Investment on Improving Health Performance: ____ $ ('000)

4 Office Waste Recycling

This indicator recognises the need to maximise recycling of office waste.

Office waste recycled: ____ (%)

SOCIAL PERFORMANCE - Sewerage

5 Public Health Incidents

This performance indicator provides a mechanism for assessing the number of incidents where there is risk to public health, with some attempt to quantify the impact of the incidents. The result reflects not only the health risk which can be attributed to an LWU's operations but also the effectiveness of the utility's risk management strategies.

Category 1 - minor incident with inconsequential effects ____ No. of Incidents

(eg. minor failure of sewage treatment processes)

Category 2 - incident with limited health impacts ____ No. of Incidents

(eg. algal problems/outbreaks)

Details: ____

Category 3 - major incident with major health impacts ____ No. of Incidents

(eg. water borne disease outbreaks and/or hospitalisations)

Details: ____

6 Employment Initiatives

This indicator recognises an LWU's commitment to address long-term unemployment in the community and increase community skills.

Hours of employment provided to long-term unemployed people: ____ Hours

Number of identified long-term unemployed engaged: ____ Persons

7 Outsourcing

This performance indicator reports the LWU's percentage expended on outsourcing of each of management cost, operation cost and maintenance cost.

Percentage expended as outsourcing: Management Cost: ____ % Operation Cost: ____ % Maintenance Cost: ____ %

8 Gifts, Grants and Fee Reductions

This performance indicator reports the value of gifts, grants and fee reductions provided to community organisations.

Gifts and grants to community organisations: ____ $ ('000)

Reduction in fees and charges (in comparison with standard non-residential charges): ____ $ ('000) *(Exclude pensioner rebates)*

ATTACHMENT 1

NSW ANNUAL WATER SUPPLY AND SEWERAGE PERFORMANCE REPORTING

BACKGROUND

The NSW annual water supply and sewerage performance reporting system has been developed in response to a need recognised by the Department of Energy, Utilities and Sustainability/Local Government Liaison Committee for Water Supply and Sewerage. NSW has been a national leader in performance reporting since commencement of reporting in 1986. The main objectives of performance reporting are:

- To enable self-monitoring by each Local Water Utility (LWU) of trends in its performance indicators and to compare its performance with that of similar LWUs to assist it to improve performance.
- To assist Local and State Government to obtain an overview of the present position and future needs of water supply and sewerage businesses in NSW and to facilitate national performance monitoring.
- Public accountability to the community.

Performance monitoring and benchmarking are an important element of the associated reforms under the Council of Australian Governments' (COAG) National Competition Policy, and are also considered as essential by the Minister for Energy and Utilities, the NSW Independent Pricing and Regulatory Tribunal, the Local Government Association and the Shires Association.

Since 2000/01 all LWUs have been participating in the NSW Performance Reporting system, greatly enhancing its value.

The NSW Water Supply and Sewerage Performance Monitoring Report illustrating the Statewide results is issued each year to all LWUs. The Report enables each LWU to review trends in its performance indicators over the last 8 years, compare its performance against similar sized or relevant LWUs, and also against Statewide results. The 2003/04 reporting forms involve minor amendments to the 2002/03 forms: - new Questions 12, 14b, 42a in the Water Supply Form

Financial information will be obtained by DEUS from Special Schedule Nos 3 to 6 of Council's 2003/04 Financial Statement.

GENERAL

To facilitate analysis of results, if the information to answer a particular question is not known or is unavailable, "NA" should be entered in the relevant space. If the answer to a particular question is zero, "0" should be entered, not " - ".

For consistency with national performance reporting, most NSW performance indicators will continue to be reported on the basis of "per connected property", rather than "per assessment". LWUs are therefore requested to carefully estimate the values requested for Q2 and Q3 to indicate the total number of properties connected to their water supply and sewerage businesses.

ACCURACY AND RELIABILITY

For consistency with national performance reporting, an estimate of the confidence grading (ie. reliability and accuracy of data) is required for a number of key data items. The appropriate confidence grading (1 to 7) should be inserted in the box provided. The grading should be based on the following:

1 - based on sound records with accuracy estimated to be within ± 1% [eg. number of assessments],
2 - based on sound records, accuracy estimated to be within ± 5% [eg. length of mains],
3 - based on records with minor shortcomings, accuracy estimated to be within ± 10% [eg. total water consumption],
4 - based on records with some shortcomings, accuracy estimated to be within ± 25% [eg. residential consumption],
5 - based on limited data, accuracy estimated to be within ± 50%[eg. unaccounted for water],
6 - based on limited data, accuracy estimated to be within ± 100% [eg. leakage],
7 - based on poor data, accuracy estimated to be not within ± 100%).

WATER SUPPLY

Q1 to Q7 Population and Dwellings

These questions refer to the figures at 30 June 2003. In Q1, exclude population in unserviced areas.

Q2 No. of Residential Properties Connected

As noted above, the performance indicators in the NSW Performance Monitoring report are based on "connected properties" rather than "assessments" for consistency with national reporting. Therefore, Q2 should be estimated as carefully as possible as this will affect most indicators.

A single dwelling has a separate service connection to the LWU's reticulation mains (ie. a direct connection to the LWU's 100mm or larger diameter mains).

A multiple dwelling is a block of flats or a group of townhouses with only a single connection for the whole group to the LWU's reticulation mains ie. each flat or townhouse does not have a separate service connection directly to the LWU's reticulation mains.

Example: No. of Single Dwellings = 5000
No. of Multiple Dwellings = 300
Av No. of Properties per Multiple Dwelling = 4

No. of Residential Properties Connected
= 5000 + 300 x 4 = 6200

Note that a shopping centre with a single connection is counted as one connected property.

The number of connected properties is generally not well reported. A common error is to report the number of flats served rather than the number of blocks of flats in Q2b of the reporting forms. A detailed review for three large coastal LWUs with a significant incidence of flats found the number of connected properties per assessment to be 0.95, 0.96 and 0.98 respectively. An LWU with about 10% vacant lots could expect this value to be about 0.9 while an LWU with few vacant lots and a high incidence of company title flats could expect this value to approach 0.98.

Q4 Assessments
This is the number of annual bills rendered by the LWU, broken into residential and non-residential.

Q6 New Residential Properties Connected in Year
This is the number of new residential properties (ie. houses, villas, units, flats) connected within the financial year.

Q7 Unserved Urban Premises in Council Area
Refers to the total number of premises in urban zoned land (in towns or villages) not served by a reticulated council water supply. Also indicate the estimated population in these premises. If Council has more than one water supply scheme reported on separate forms, only answer this question once (on the main scheme).

Q11 Rehabilitations this Year
Comprises the renewal or replacement of existing mains or service connections. Excludes maintenance work (Sect 5 of *NSW Local Government Asset Accounting Manual, 1999*).

Q12 Consumption
The various categories of consumption are as follows:

- Residential - Domestic in-house and ex-house.
- Commercial – Offices (including Government), shops, clubs, hotels, motels, caravan parks etc.
- Industrial - eg. a canning or whitegoods factory, flour mill, paper mill, timber mill, poultry, feed lot, sale yard, abattoir, mining.
- Rural – Farms or hobby-farms outside urban zoned land, includes stock and domestic uses. Also include market gardens, agricultural irrigation.
- Institutional - Hospitals, nursing homes, schools, colleges, universities, gaols etc.
- Bulk Sales - Sales to other councils/LWUs.
- Public Parks - Uses such as watering of public parks, gardens, ovals etc. (Fire fighting & mains flushing is included in water losses – see below).
- Water Losses - includes real losses (ie. leakage) plus apparent losses (theft and illegal connections, illegal use of unmetered customer fire services, fire fighting (street hydrants), mains flushing, under - registration of customer meters, errors in system meters). Statewide analysis indicates water losses should be at least 10% for other than bulk water suppliers.
- Real Losses (ie. leakage) - Leakage studies for over 40 NSW towns indicate an average leakage from water supply distribution systems of 17% of annual consumption (range 6% to 35%). A minimum of 6% is therefore suggested other than for bulk suppliers.
- Customer Meter Errors – under-registration of customer meters. This is included in apparent losses.
- Revenue water (potable) includes all billed water whether metered or unmetered. Non-revenue water (potable) includes all unbilled metered water and all water losses. Revenue water plus non-revenue water should equal the total potable water supplied.

Q14 Non-potable Water Component in a Dual Supply System
This is the non-potable water component. The potable supply for a dual system should be reported in Q12. The residential component is the non-potable water reticulated to residential customers as part of a dual supply.

Q15 LWU Dams
Most NSW LWUs with dams have an off-stream dam with run-of-river pumping to the storage.

Recycled Water
Recycled water and/or non-potable water is used in a dual water supply system. The volume of recycled water shown in Q15f of the Water Report should be consistent with the volume shown in Q42d of the Sewerage Report (recycled water for non-potable town water supply).

Total Water Usage
The Total Water Usage (Q15i) should equal the sum of Total Potable Water Supplied (Q12i) plus (Q14), the Non-Potable Water Component in a Dual Supply System.

Estimated annual yield of sources
This refers to the annual demand level which could just be supplied by the LWU's present water supply system during a repetition of the worst historical drought. The yield is not the present annual demand.

Q19 to Q24 Complaints Reported (note Q21 has been deleted)
Complaints refer to any expression of customer dissatisfaction with the service provided and each complaint reported to an LWU employee, whether in person, by telephone, fax, email or letter should be recorded and the total entered in LWU's Report. Exclude billing inquiries and customer reporting of minor malfunctions eg. leaking house services. Include customer reports of dirty water.

Note that water quality complaints are now reported under Q46 for each treatment works. If your records do not indicate the source treatment works, make your best assessment in Q46 and record the source treatment works for future quality complaints.

Q25 Interruption to Supply (Unplanned)
The number of properties affected by unplanned interruptions to supply should be recorded for each occurrence of interruption. Interruption to supply is where the customer is without a service due to a break in the LWU's water main. Exclude instances of reduced levels of service (eg. low pressure) or bursts/leaks in service connections.

Q27 No. of Days of Water Restrictions due to Drought
Include all days of water restrictions no matter what level of restriction is applied.

Q28 Number of Breaks/Failures
Pipeline breaks are where an LWU's water main has to be shut down. Service connection failures are failures in the service connection linking the LWU's water mains to a customer's property.

Q32 to 35 Water Charges
These items have been deleted.

Q42 Percentage test compliance with 1996 NHMRC/ ARMCANZ Australian Drinking Water Guidelines
System performance monitoring is a wide ranging assessment of the quality of water supplied to the LWU's customers. **Operational monitoring** is used as a trigger for immediate corrective action to improve water quality and to check that equipment is working properly.

Physical compliance and chemical compliance are the overall compliance with physical and chemical requirements repectively. In addition, each of the key physical characteristics of turbidity, pH and colour should be reported. For microbiological compliance, E.coli is the key parameter (health-related).

Compliance refers to the number of samples not the number of tests. Sampling location and frequency should be on the basis of Attachment 2 and the above 1996 guidelines. The number of samples reported should be those taken for **system performance monitoring** from representative locations in the water supply system and not those taken for operational monitoring ie. the chemical samples should exclude daily fluoride and chlorine testing and the physical samples should exclude daily pH, turbidity and colour testing**.**

SEWERAGE

Q1 to Q6 Population and Dwellings
See comments for Q1, Q2, Q4, Q6 and Q7 for water supply.

Q11 Rehabilitations
See comments for Q11 for Water Supply

Q12 Infiltration/Inflow
This refers to the estimated groundwater infiltration and stormwater inflow into the LWU's sewerage system.

Residential sewage
This refers to the sewage from residential dwellings connected to the sewerage system. This volume may be estimated based on the volume of water supplied to residential dwellings in winter.

Non-Residential Sewage
This refers to the sewage from non-residential customers. This volume should be estimated based on the volume of water supplied to non-residential customers using appropriate sewer discharge factors.

Trade Waste
This is the volume of liquid trade waste received in the sewerage system. This volume may be measured for major trade waste dischargers and estimated using appropriate trade waste discharge factors for other customers.

Liquid trade waste dischargers may include bakeries, butcher shops, cafes, car washes, clubs, dentists, doctors, factories florists, hair dressing salons, hotels, laboratories, laundries, motels, photo and x-ray processors, restaurants, service stations and workshops. Each trade waste discharger needs to provide appropriate pre-treatment of this discharge.

If your LWU discharges tip leachate into the sewer, this should also be included as trade waste.

Large trade waste dischargers (>20kL/d) may include food and beverage processing, sale yards, abattoirs and vineyards.

Q12A No. of Large Trade Waste Dischargers (>20kL/d)
This is the number of trade waste dischargers approved to discharge over 20kL/d into your sewerage system.

Q12B Discharges from Large Trade Waste Dischargers
The maximum day volume of trade waste, the equivalent BOD load and the equivalent SS load should be reported for large trade waste dischargers (ie. those licenced to discharge over 20kL/d into the sewerage system).

Q13 Effluent Discharges
For Land discharges of effluent, exclude the volume of effluent recycled (Q42f).

Q14 to Q19 Complaints Reported
(note Q17 has been deleted)
See comments for Q19 to Q24 for Water Supply. Note that sewage odour complaints are now reported under Q54 for <u>each</u> sewage treatment works catchment. If your records do not indicate which treatment works catchment was involved in an odour complaint, make your best assessment in Q54 and record the source treatment works catchment for future odour complaints.

Q23 Chokes in House Branch Connections, and
Q24 Chokes in House Drains
For consistency with national performance reporting, chokes in LWU sewer risers and sidelines (house branch connections) and in customers' internal drains (house drains) are to be reported in these items respectively.

Q25 Unplanned Interruption to Service
This refers to the number of properties experiencing an overflow in their gully trap due to a blockage in an LWU sewer main or failure of a pumping station.

Q26 Average Time to Restore an Interrupted Service
This is the average time to restore the sewerage service after an unplanned interruption. A service interruption is where the customer is without a satisfactory sewerage service due to a partial or complete blockage in the LWU's reticulation.

Q31A to 35 Sewerage Charging
These items have been deleted.

Q38 Type of Treatment Works
Nutrient removal requires the provision of specific biochemical processes (eg. nitrification/denitrification for nitrogen removal or biological nutrient removal (BNR) for nitrogen and phosphorous removal), or the addition of chemicals (eg. alum addition to precipitate phosphorous).

Q41 Volume of Sewage Receiving Treatment
For each of the four levels of treatment shown, record the volume of sewage receiving treatment eg. For an IDEA treatment works with nutrient removal which received 200 ML of sewage, with wet weather by-pass of 5%, the values entered would be:

No Treatment	10 ML
Primary Treatment	190 ML
Secondary Treatment	190 ML
Tertiary Treatment	190 ML

Q42 Volume Recycled
This refers to sewage effluent recycled for low value uses (eg. woodlots, pasture improvement), for high value uses (eg. horticulture, viticulture), for golf-courses, for non-potable town water supply (eg. watering of race-courses, parks and ovals, industrial uses or mining uses), and for other uses. It excludes any internal recycling within the sewage treatment works. Also see comments for Q15f for Water Supply.

Q43 Biosolids
This refers to how the LWU manages its biosolids (sludge) ie. to farmland, to landfill or other. The percentage reuse or recycling should also be provided.

Q46 Peak Wet Weather Flow
This refers to the maximum volume of sewage received at the treatment works in 24 hours (ML) and to the maximum flow received at the treatment works in one hour (L/s). This data should be available from the meter at the inlet to the treatment works although the maximum flow may need to be estimated if a continuous recorder is not available. These indicators are essential to assess the capacity of the existing treatment works and also the design requirements for an extension of the treatment works as this becomes necessary.

Q50, Q51 90 Percentile Licence Limits
Some LWUs only have 100 percentile licence limits for their sewage treatment works. In this case, the 100 percentile limits should be reported in Q50 and the corresponding percentage of samples complying with the 100 percentile limits reported in Q51. Note that the percentages in Q51 refer to the number of samples not the number of tests. One sample may have a number of tests performed to measure compliance.

Q52 Sampling Days
This refers to the number of sampling days for each sewage treatment works, including the days for DEUS sampling.

If further clarification of any item is needed, please contact the Manager Water Utility Performance,
Department of Energy, Utilities and Sustainability: Phone 8281 7434 Fax 8281 7451

ATTACHMENT 2

1996 AUSTRALIAN DRINKING WATER GUIDELINES: SAMPLING LOCATION AND FREQUENCY

GUIDELINES

Since 1998/99, compliance for drinking water quality in country NSW has been reported on the basis of the 1996 *NHMRC/ARMCANZ Australian Drinking Water Guidelines.* These guidelines supersede the 1987 guidelines and reflect the latest World Health Organisation findings and recommendations on drinking water quality.

The guidelines outline the aesthetic and health characteristics required for good quality drinking water. Although the guidelines are not standards, it is recommended that NSW councils adopt a "best practice" approach for the supply of drinking water using the 1996 Guidelines.

The measurable characteristics fall into the following categories:

- *Microbiological,*
- *Physical,*
- *Chemical, and*
- *Radiological.*

For each characteristic, the guidelines identify three parameters, namely location of sampling, frequency of sampling and acceptable performance measures. Compliance requires that all three parameters be satisfied.

Table I indicates the number of microbiological samples required annually for systems supplying populations of 5,000, 10,000, 20,000, 50,000 and 100,000 respectively is 52, 64, 88, *160 and 280.* See note to Table 1.

SAMPLING LOCATION

Samples for system performance monitoring should be taken from representative locations within the system. These should include headworks, service reservoirs, the start of the distribution system and at representative points throughout the distribution system. Suggested locations for each characteristic are shown on pages 35 to 39 (all references to pages in this attachment refer to the 1996 *Guidelines Summary*). Pages 35 to 39 also indicate other characteristics, which may need to be monitored for a particular water supply.

SAMPLING FREQUENCY

The frequency of sampling is dependent on the type of characteristic. The suggested sampling frequency for various water supply characteristics are shown on pages 35 to 39.

The sampling frequency required for *microbiological quality* is provided in page 23 and summarised in Table 1. These should be increased following repair work or interruptions to supply.

Table 1 - Microbiological Quality Sampling Frequency*

Population	*Recommended No. of Samples*
<1,000	Refer to pages 16 to 18 of Guidelines Summary
1,000 to 5,000	Preferably 1 sample per week (if less, refer to pages 1 to 18 of Guidelines Summary)
5,000 to 100,000	1 sample per week plus 1 per month for each 5,000 above 5,000 population
>100,000	6 samples per week plus 1 per month for each 10,000 above 100,000 population

* Note: the actual sample numbers recommended under the NSW Health Drinking Water Monitoring Program reflect the complexity of the system as well as population.

Sampling tor the key ***physical characteristics*** should be carried out as shown in Table 2 where these are significant.

Table 2 - Physical Quality Sampling Frequency+

Characteristic	*Sampling Frequency*
pH, turbidity, TDS	Fortnightly at water treatment works or chlorinator. Monthly sample to lab in systems serving a population of 5,000 or more, otherwise biannually
Colour	Monthly
Hardness	Quarterly

+ All of these are aesthetic (non-health related). However, turbidity > 1 may reduce the effectiveness of disinfection.

Sampling for the full range of ***chemical characteristics*** should be carried out biannually. In addition, tests for key characteristics should be undertaken more frequently as shown in Table 3 where these are significant.

Sampling performance for chemical and microbiological quality is regarded as satisfactory if, over the preceding 12 months, the minimum number of scheduled samples has been tested.

Table 3 - Chemical Quality Sampling Frequency#

Characteristic	*Sampling Frequency*
Fluoride	Daily if the water supply is fluoridated
Iron, manganese	Fortnightly
Copper, nitrates, nitrite, lead, fluoride, manganese, antimony, arsenic, barium, boron, cadmium, chromium, cyanide, iodide, mercury, molybdenum, nickel, selenium, silver, sodium, sulfate	Monthly in systems serving a population of 5,000 or more, otherwise biannually

 # All of these chemicals are health related with the exception of:

- *iron*
- *sodium which may only be of concern to people on a low-sodium diet.*

Radiological sampling should be carried out every 5 years (for surface water, every 2 years for groundwater and more frequently if the guideline is exceeded (page 36). ***Disinfection by-products*** (organic) should be monitored monthly (page 36).

PERFORMANCE

Performance is regarded as satisfactory if over the preceding 12 months sampling location and frequency have complied with the guidelines, and all guideline values for each characteristic have been met. Guideline values for microbiological characteristics are shown on pages 22 to 25 and are summarised in Table 4.

Table 4 - Microbiological Performance

Indicator	*Guideline Value*
Performance is regarded as satisfactory if, over the preceding 12 months:	
E. coli	At least 98% of scheduled samples contain no E. coli , and
Total Coliforms	At least 95% of scheduled samples contain no total coliforms (except that a higher level of coliform contamination may be tolerated if certain other guidelines are met – refer to page 23 of the *Guidelines Summary*)

Guideline values for physical characteristics are shown on page 26 and for chemical characteristics on pages 27 and 28. Health related physical and chemical water quality is satisfactory if, over the preceding 12 months, 95% of the results are less than the guideline value (page 19). For non-health related characteristics, water quality is satisfactory if the mean of results is less than the guidelines value (page 19).

ATTACHMENT 3

TRIPLE BOTTOM LINE (TBL) ACCOUNTING SUPPLEMENTS

BACKGROUND

Local Water Utilities (LWUs) should aim to integrate the triple bottom line (TBL) of social, environmental and economic considerations into their policies, practices and decision making. TBL performance reporting will help LWUs demonstrate they are managing their water supply and sewerage businesses responsibly and involves:

- **Social** factors such as public health, affordability and levels of service being properly addressed;
- **Environment** being protected for the benefit of current and future generations and natural resources being used efficiently; and
- **Economic** performance being sound with efficient service provision.

Since 2001/02, all NSW LWUs have been requested to report this supplementary data for their water supply business (green form) and for their sewerage business (brown form).

This attachment provides further information on each item in the TBL Supplements to assist LWUs. Examples for each category of environmental and public health incidents for both water supply and sewerage are provided overleaf.

GENERAL

The General note in Attachment 1 also applies to the TBL supplements, which refer to the year ending 30 June 2004.

Q1 to Q4 <u>Environmental Performance</u>

The NSW government recognises the importance of using the state's natural resources efficiently and sustainably. Protecting water, land and air resources in NSW permits both current and future generations to enjoy the benefits of a healthy environment. To help demonstrate achievement of these goals, a number of additional environmental performance indicators have been included in the TBL supplements.

While environmental priorities will vary between LWUs, catchments and regions, issues such as water consumption per residential property, system water loss (leakage) and energy consumption are broadly applicable across the state.

Q1 Environmental Incidents

Environmental incidents relate to specific events during the year that had a negative impact on the environment.

A *Category 1* incident relates to minor events with little or no impact on the environment.

A *Category 2* incident relates to an event that had a limited and non-permanent impact on the environment.

Category 3 incidents are those with a major and irreversible impact on the environment.

Examples of environmental incidents are provided overleaf.

Q2 Environmental Management Systems

International Standard ISO 14001 – *Environmental Management Systems – Specification with guidance for use.*

Q3 Environmental and Health Improvements

This indicator refers to the component of capital expenditure on improving environmental performance (eg. for a new sewage treatment works) or improving health performance (eg. construction of a backlog sewerage project or a new water treatment works).

Q4 Office Waste Recycling

This indicator reports the percentage recycling of office waste. This refers mainly to paper products, but may also include other office materials such as plastics and packaging.

Q5 to Q7 <u>Social Performance</u>

LWUs play an important role in their communities. The Social Performance section in the TBL supplement allows LWUs to report on important elements of the social impact of their operations.

Q5 Public Health

A key performance indicator for social performance is protection of public health.

A C*ategory 1* incident relates to minor events with nil or inconsequential public health effects.

A *Category 2* incident relates to an event that had a limited public health impact.

Category 3 incidents are those with a major impact on public health.

Examples of public health incidents are provided overleaf.

Q6 Employment Initiatives

As a contribution to the community, LWUs may have a proactive employment program that targets the long-term unemployed. This indicator reports the total number of hours and the total number of persons engaged under such a program, by the LWU's water supply or sewerage business.

Q8 Gifts, Grants and Rebates

Gifts and Grants

This indicator reports grants and donations by the LWU to community groups.

The figure reported should reflect cash and in-kind donations such as equipment, materials or labour.

Reductions in Fees and Charges

LWUs may elect to provide reduced fees and charges for certain non-profit and community organisations and charities (including non-rateable properties). This indicator reports the total amount of reductions provided to such community organisations, in comparison with the LWU's standard fees and charges for non-residential customers. Exclude pensioner rebates from this figure.

Examples of Environmental and Public Health Incidents

WATER SUPPLY

Q1 - Environmental Incidents

Category 1 – Minor Incidents with Inconsequential Effects

- A reportable incident but not a breach of environmental regulations
- An incident resulting in under 4 days of odour or noise complaints
- A minor spillage of non-toxic chemicals or sludge to waterway or land

Category 2 – Incident with Limited Environmental Effects

- A minor breach of environmental regulations
  eg. non-maintenance of the required environmental flows
- An incident resulting in over 4 days of odour or noise complaints
- A major soil erosion incident requiring remediation
- A significant chemical or sludge spill to waterway or land

Category 3 – Severe Incident with Irreversible Environmental Effects

- A major breach of environmental regulations
- A dam failure
- A severe algal outbreak in storages/waterways
- A major toxic chemical or sludge spill into waterways
- Widespread destruction of native forests/ecosystems

Q5 – Public Health Incidents

Category 1 – Minor Incidents with Inconsequential Effects

- A minor failure of water treatment processes
- An incident resulting in a limited boil water notice

Category 2 – Incidents with Limited Health Effects

- Non-compliance with health parameters (faecal coliforms) of 1996 NHMRC water quality guidelines for over 7 days
- A system-wide boil water notice
- A failure of a disinfection system for over 3 days
- A failure of major treatment processes at a treatment works for over 4 days
- A chlorine or ammonia gas leak (chlorination/chloramination)
- Non-pathogenic/toxic contamination of the potable water supply due to a cross connection
- An incident resulting in unplanned interruptions to supply for over 2 days (if over 7 days report as Category 3)

Category 3 – Incidents with Major Health Effects

- An outbreak of water borne disease due to water supply system
- Hospitalisations from water borne disease due to water supply
- An incident resulting in unplanned interruptions to supply for over 7 days
- A pathogenic contamination of the potable water supply due to a cross connection
- A toxic contamination of water supply

Notes: 1. Environmental regulations include any licence conditions.

2. An incident with both environmental and public health impacts should be reported in both categories.

SEWERAGE

Q1 - Environmental Incidents

Category 1 – Minor Incidents with Inconsequential Effects

- A reportable incident but not a breach of environmental regulations
- An incident resulting in under 4 days of odour or noise complaints
- A minor spillage of non-toxic chemicals or sludge to waterway or land

Category 2 – Incident with Limited Environmental Effects

- A minor breach of environmental regulations eg:
  - ⇒ Discharge of partially treated effluent to receiving waters
  - ⇒ Embankment failure of an effluent pond
- A wet weather sewer overflow for under 3 hours
- An incident resulting in over 4 days of odour or noise complaints
- A major soil erosion incident requiring remediation
- A significant chemical or sludge spill to waterways or land

Category 3 – Severe Incident with Irreversible Environmental Effects

- A dry weather sewer overflow
- A major breach of environmental regulations eg:
  - ⇒ A major wet weather sewer overflow or an overflow for over 3 hours
  - ⇒ A failure of STW, resulting in discharge of large volume of untreated sewage to environment
  - ⇒ A major toxic chemical or sludge spill into waterways
  - ⇒ Widespread destruction of native forests/ecosystems
  - ⇒ Embankment failure of a sludge lagoon

Q5 – Public Health Incidents

Category 1 – Minor Incidents with Inconsequential Effects

- A minor failure of sewage treatment processes

Category 2 – Incidents with Limited Health Effects

- An algal outbreak in receiving waters attributable to sewerage system
- Issue of public no-contact notice with receiving waters
- Sewer overflow affecting public access to land or water
- Sewage contamination of fishing or recreational water areas
- A failure of effluent disinfection system
- A failure of major treatment processes at a treatment works for over 4 days
- An incident resulting in unplanned interruptions to service for over 3 days (if over 20 days, report as Category 3)
- A chlorine leak

Category 3 – Incidents with Major Health Effects

- An outbreak of water borne disease due to sewerage system
- Hospitalisations from water borne disease due to sewerage system
- Contamination of an oyster farming area due to sewerage system
- A sewer overflow into a water supply catchment
- An incident resulting in unplanned interruptions to service for over 20 days

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SPECIAL SCHEDULE NO. 3

WATER SUPPLY STATEMENT OF FINANCIAL PERFORMANCE
(Gross Including Internal Transactions)
for the year ended 2003/2004
($'000)

		2003/04	2002/03
A. EXPENSES & REVENUES			
	Expenses		
1.	Management Expenses		
	a. Administration		
	b. Engineering and Supervision		
2.	Operation and Maintenance Expenses		
	- Dams and Weirs		
	a. Operation Expenses		
	b. Maintenance Expenses		
	-Mains		
	c. Operation Expenses		
	d. Maintenance Expenses		
	- Reservoirs		
	e. Operation Expenses		
	f. Maintenance Expenses		
	- Pumping Stations		
	g. Operation Expenses (excluding energy		
	h. Energy Costs		
	i. Maintenance Expenses		
	- Treatment		
	j. Operation Expenses (excluding chemical		
	k. Chemical Costs		
	l. Maintenance Expenses		
	- Other		
	m. Operation Expenses		
	n. Maintenance Expenses		
	o. Purchase of Water		
3.	Depreciation		
	a. System Assets		
	b. Plant and Equipment		
4.	Miscellaneous		
	a. Interest Expenses		
	b. Other Expenses		
5.	**Total Expenses**		
	Revenues		
6.	Residential Charges		
	a. Access (including rates)		
	b. User Charges		
7.	Non-residential Charges		
	a. Access (including rates)		
	b. User Charges		
8.	Extra Charges		
9.	Interest Income		
10.	Other Revenues		
11.	Grants		
	a. Grants for Acquisition of Assets		
	b. Grants for Pensioner Rebates		
	c. Other Grants		
12.	Contributions		
	a. Developer Charges		
	b. Developer Provided Assets		
	c. Other Contributions		
13.	**Total Revenues**		
14.	Gain or Loss on Disposal of Assets		
15.	Operating Result		
15a.	**Operating Result** (less Grants for Acquisition of Assets)		

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SPECIAL SCHEDULE NO. 3 (Cont'd)

WATER SUPPLY STATEMENT OF FINANCIAL PERFORMANCE
(Gross Including Internal Transactions)
for the year ended 2003/2004
($'000)

		2003/04	2002/03
B. CAPITAL TRANSACTIONS			
	Non-Operating Expenditures		
16.	Acquisition of Fixed Assets		
	a. Subsidised Scheme		
	b. Other New System Assets		
	c. Renewals		
	d. Plant & Equipment		
17.	Repayment of Debt		
	a. Loans		
	b. Advances		
	c. Finance Leases		
18.	Transfer to Sinking Fund		
19.	**Totals**		
	Non-Operating Funds Employed		
20.	Proceeds from Disposal of Assets		
21.	Borrowing Utilised		
	a. Loans		
	b. Advances		
	c. Finance Leases		
22.	Transfer from Sinking Fund		
23.	**Totals**		
C. RATES AND CHARGES			
24.	Number of Assessments		
	a. Residential (occupied)	.....	
	b. Residential (unoccupied)	.....	
	c. Non-Residential (occupied)	.....	
	d. Non-Residential (unoccupied)	.....	
25.	Number of ETs for which Developer Charges were received	..... ET	
26.	Total Amount of Pensioner Rebates	$.....	

COUNCIL OF / COUNCIL OF THE CITY OF .....

SPECIAL SCHEDULE NO. 3 (cont'd)

WATER SUPPLY – CROSS-SUBSIDIES
as at 2003/2004
($'000)

	Yes	No	Amount
D. BEST PRACTICE ANNUAL CHARGES & DEVELOPER CHARGES#			
27. **Annual Charges**			
a. Does Council have best-practice water supply annual charges and usage charges*?			
If Yes, go to 28a. If No, please report if Council has removed **land value** from access charges (ie.rates)?			
* Such charges for both residential customers and non-residential customers comply with section 3.2 of *'Water Supply, Sewerage and Trade Waste Pricing Guidelines*, Department of Land and Water Conservation, December, 2002. Such charges do not involve significant cross-subsidies.			
b. Cross-subsidy **from** residential customers using less than allowance (page 25 of Guidelines)			
c. Cross-subsidy **to** non-residential customers (page 24 of Guidelines)			
d. Cross-subsidy **to** large connections in unmetered supplies (page 26 of Guidelines)			
28. **Developer Charges**			
a. Has Council completed a water supply Development Servicing** Plan?			
b. Total cross-subsidy in water supply developer charges for 2003/04 (page 47 of Guidelines)			
** In accordance with page 9 of *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*, Department of Land & Water Conservation, December, 2002.			
29. **Disclosure of Cross Subsidies**			
TOTAL OF CROSS SUBSIDIES (27b + 27c + 27d + 28b)			

Councils which have not yet implemented best-practice water supply pricing should disclose cross-subsidies in items 27b, 27c and 27d above.

However, disclosure of cross-subsidies is **not** required where a council has implemented best-practice pricing and is phasing-in such pricing over a period of 3 years.

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SPECIAL SCHEDULE NO. 4

WATER SUPPLY – NET ASSETS COMMITTED
(Gross Including Internal Transactions)
as at 2003/2004
($'000)

		Current	Non-Current	Total
	ASSETS			
30.	Cash and Investments			
	a. Developer Charges			
	b. Specific Purpose Grants			
	c. Accrued Leave			
	d. Unexpended Loans			
	e. Sinking Fund			
	f. Other			
31.	Receivables			
	a. Specific Purpose Grants			
	b. Rates and Charges			
	c. Other			
32.	Inventories			
33.	Property, Plant and Equipment			
	a. System Assets			
	b. Plant and Equipment			
34.	Other Assets			
35.	**Total Assets**			
	LIABILITIES			
36.	Bank Overdraft			
37.	Creditors			
38.	Borrowings			
	a. Loans			
	b. Advances			
	c. Finance Leases			
39.	Provisions			
	a. Dividend			
	b. Other			
40.	**Total Liabilities**			
41.	**NET ASSETS COMMITTED**			
	EQUITY			
42.	Accumulated Surplus			
43.	Asset Revaluation Reserve			
44.	**Total Equity**			
	Note to System Assets :			
45.	Current Replacement Cost of System Assets			
46.	Accumulated Current Cost Depreciation of System Assets			
47.	Written Down Current Cost of System Assets			

COUNCIL OF / COUNCIL OF THE CITY OF .....

SPECIAL SCHEDULE NO. 5

SEWERAGE STATEMENT OF FINANCIAL PERFORMANCE
(Gross Including Internal Transactions)
for the year ended 2003/2004
($'000)

		2003/04	2002/03
A. EXPENSES & REVENUES			
	Expenses		
1.	Management Expenses		
	a. Administration		
	b. Engineering and Supervision		
2.	Operation and Maintenance Expenses		
	-Mains		
	a. Operation Expenses		
	b. Maintenance Expenses		
	- Pumping Stations		
	c. Operation Expenses (excluding energy costs)		
	d. Energy Costs		
	e. Maintenance Expenses		
	- Treatment		
	f. Operation Expenses (excluding chemical, energy, effluent and biosolids management costs)		
	g. Chemical Costs		
	h. Energy Costs		
	i. Effluent Management		
	j. Biosolids Management		
	k. Maintenance Expenses		
	- Other		
	l. Operation Expenses		
	m. Maintenance Expenses		
3.	Depreciation		
	a. System Assets		
	b. Plant and Equipment		
4.	Miscellaneous		
	a. Interest Expenses		
	b. Other Expenses		
5.	**Total Expenses**		
	Revenues		
6.	Residential Charges (including rates)		
7.	Non-residential Charges		
	a. Access (including rates)		
	b. User Charges		
8.	Trade Waste Charges		
	a. Annual Fees		
	b. User Charges		
	c. Excess Mass Charges and Re-inspection Fees		
9.	Extra Charges		
10.	Interest Income		
11.	Other Revenues		
12.	Grants		
	a. Grants for Acquisition of Assets		
	b. Grants for Pensioner Rebates		
	c. Other Grants		
13.	Contributions		
	a. Developer Charges		
	b. Developer Provided Assets		
	c. Other Contributions		
14.	**Total Revenues**		
15.	Gain or Loss on Disposal of Assets		
16.	Operating Result		
16a.	**Operating Result** (less Grants for Acquisition of Assets)		

COUNCIL OF / COUNCIL OF THE CITY OF .....

SPECIAL SCHEDULE NO. 5 (Cont'd)

SEWERAGE STATEMENT OF FINANCIAL PERFORMANCE
(Gross Including Internal Transactions)
for the year ended 2003/2004
($'000)

		2003/04	2002/03
B. CAPITAL TRANSACTIONS			
	Non-Operating Expenditures		
17.	Acquisition of Fixed Assets		
	a. Subsidised Scheme		
	b. Other New System Assets		
	c. Renewals		
	d. Plant & Equipment		
18.	Payment of Debt		
	a. Loans		
	b. Advances		
	c. Finance Leases		
19.	Transfer to Sinking Fund		
20.	**Totals**		
	Non-Operating Funds Employed		
21.	Proceeds from Disposal of Assets		
22.	Borrowing Utilised		
	a. Loans		
	b. Advances		
	c. Finance Leases		
23.	Transfer from Sinking Fund		
24.	**Totals**		
C. RATES AND CHARGES			
25.	Number of Assessments		
	a. Residential (occupied)	.....	
	b. Residential (unoccupied)	.....	
	c. Non-Residential (occupied)	.....	
	d. Non-Residential (unoccupied)	.....	
26.	Number of ETs for which Developer Charges were received	..... ET	
27.	Total Amount of Pensioner Rebates	$.....	

COUNCIL OF / COUNCIL OF THE CITY OF .....

SPECIAL SCHEDULE NO. 5 (cont'd)

SEWERAGE – CROSS-SUBSIDIES
as at 2003/2004
($'000)

	Yes	No	Amount
D. BEST PRACTICE ANNUAL CHARGES & DEVELOPER CHARGES[#]			
28. **Annual Charges**			
a. Does Council have best-practice sewerage annual charges, usage charges and trade waste fees and charges*?	☐	☐	
If Yes, go to 29a. If No, please report if Council has removed **land value** from access charges (ie. rates)?	☐	☐	
* Such charges for residential customers, non-residential customers and trade waste dischargers comply with sections 4.2 and 4.3 of *Water Supply, Sewerage and Trade Waste Pricing Guidelines*, Department of Land and Water Conservation, December, 2002. Such charges do not involve significant cross-subsidies.			
b. Cross-subsidy to non-residential customers (page 45 of Guidelines)			
c. Cross-subsidy to trade waste dischargers (page 46 of Guidelines)			
29. **Developer Charges**			
a. Has Council completed a sewerage Development Servicing** Plan?	☐	☐	
b. Total cross-subsidy in sewerage developer charges for 2003/04 (page 47 of Guidelines)			
** In accordance with page 9 of *'Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*, Department of Land & Water Conservation, December, 2002.			
30. **Disclosure of Cross Subsidies**			
TOTAL OF CROSS SUBSIDIES (28b + 28c + 29b)			

[#] Councils which have not yet implemented best-practice sewerage pricing and liquid trade waste pricing should disclose cross-subsidies in items 28b and 28c above.

However, disclosure of cross-subsidies is **not** required where a council has implemented best-practice sewerage and liquid trade waste pricing and is phasing-in such pricing over a period of 3 years

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COUNCIL OF / COUNCIL OF THE CITY OF .....

SPECIAL SCHEDULE NO. 6

SEWERAGE SERVICES – NET ASSETS COMMITTED
(Gross Including Internal Transactions)
as at 2003/2004
($'000)

		Current	Non-Current	Total
	ASSETS			
31.	Cash and Investments			
	a. Developer Charges			
	b. Specific Purpose Grants			
	c. Accrued Leave			
	d. Unexpended Loans			
	e. Sinking Fund			
	f. Other			
32.	Receivables			
	a. Specific Purpose Grants			
	b. Rates and Charges			
	c. Other			
33.	Inventories			
34.	Property, Plant and Equipment			
	a. System Assets			
	b. Plant and Equipment			
35.	Other Assets			
36.	**Total Assets**			
	LIABILITIES			
37.	Bank Overdraft			
38.	Creditors			
39.	Borrowings			
	a. Loans			
	b. Advances			
	c. Finance Leases			
40.	Provisions			
	a. Dividend			
	b. Other			
41.	**Total Liabilities**			
42.	**NET ASSETS COMMITTED**			
	EQUITY			
43.	Accumulated Surplus			
44.	Asset Revaluation Reserve			
45.	**Total Equity**			
	Note to System Assets :			
46.	Current Replacement Cost of System Assets			
47.	Accumulated Current Cost Depreciation of System Assets			
48.	Written Down Current Cost of System Assets			

NOTES TO SPECIAL SCHEDULE NOS. 3 AND 5

Administration[*](item 1a of Special Schedules 3 and 5) comprises the following:
- Administration Staff
    - Salaries and Allowance
    - Travelling Expenses
    - Accrual of Leave Entitlements
    - Employment Overheads
- Meter Reading
- Bad and Doubtful Debts
- Other Administrative/Corporate Support Services

Engineering and Supervision[*] (item 1b of Special Schedules 3 and 5) comprises the following:
- Engineering Staff
    - Salaries and Allowance
    - Travelling Expenses
    - Accrual of Leave Entitlements
    - Employment Overheads
- Other Technical and Supervision Staff
    - Salaries and Allowance
    - Travelling Expenses
    - Accrual of Leave Entitlements
    - Employment Overheads

Operation Expenses (item 2 of Special Schedules 3 and 5) comprise the day to day operational expenses excluding maintenance expenses.

Maintenance Expenses (item 2 of Special Schedules 3 and 5) comprise the day to day repair and maintenance expenses. (Refer to Section 5 of the Local Government Asset Accounting Manual regarding capitalisation principles and the distinction between capital and maintenance expenditure).

Other Expenses (item 4b of Special Schedules 3 and 5) include all expenses not recorded elsewhere.

Residential Charges[**] (items 6a, 6b and item 6 of Special Schedules 3 and 5 respectively) include all revenues from residential charges. Item 6 of Schedule 3 should be separated into 6a Access Charges (including rates if applicable) and 6b User Charges.

Non-residential Charges[**] (items 7a, 7b of Special Schedules 3 and 5) include all revenues from non-residential charges separated into 7a Access Charges (including rates if applicable) and 7b User Charges.

Trade Waste Charges (item 8 of Special Schedule 5) include all revenues from trade waste charges separated into 8a Annual Fees, 8b Usage Charges and 8c Excess Mass Charges and Re-inspection Fees.

Other Revenues (items 10 and 11 of Special Schedules 3 and 5 respectively) include all revenues not recorded elsewhere.

Other Contributions (items 12c and 13c of Special Schedules 3 and 5 respectively) include capital contributions for water supply or sewerage services received by Council under Section 565 of the Local Government Act.

* Administration and engineering costs for the development of capital works projects should be reported as part of the capital cost of the project and not as part of the recurrent expenditure (ie. in item 16 for water supply and item 17 for sewerage, and not in items 1a and 1b).

** To enable accurate reporting of **average residential bills**, it is essential for councils to accurately separate their residential (item 6) and non-residential (item 7) charges.

LOCAL WATER UTILITY .....

SPECIAL SCHEDULE NO. 7

WATER SUPPLY BEST PRACTICE MANAGEMENT DISCLOSURE REQUIREMENTS for the year ended 2003/2004

	Yes	No
1. **Strategic Business Plan**		
a. Does LWU have a strategic business plan (Item 1a in Table 1 on page 18 of *Best-Practice Management of Water Supply and Sewerage Guidelines*)?	☐	☐
b. Does the strategic business plan include a 20 year financial plan (Item 1b in Table 1)?	☐	☐
2. **Pricing**		
a. Does LWU have full cost recovery (Item 2a in Table 1)?	☐	☐
b. Does LWU have complying residential charges (Item 2b in Table 1)?	☐	☐
c. Does LWU have complying non-residential charges (Item 2b in Table 1)?	☐	☐
d. Does LWU have commercial developer charges (Item 2e in Table 1)?	☐	☐
3. **Performance Reporting**		
Has LWU provided water supply reporting forms to DEUS by 31 October (Item 5 Table 1)?	☐	☐
4. **Demand Management**		
Has LWU implemented sound demand management (Item 3 Table 1)?	☐	☐
5. **Drought Management**		
Has LWU implemented sound drought management (Item 4 Table 1)?	☐	☐
6. **Integrated Water Cycle Management**		
Has LWU implemented an integrated water cycle management (Item 6 Table 1)?	☐	☐

LOCAL WATER UTILITY .....

SPECIAL SCHEDULE NO. 7

SEWERAGE BEST PRACTICE MANAGEMENT DISCLOSURE REQUIREMENTS for the year ended 2003/2004

	Yes	No
1. Strategic Business Plan		
a. Does LWU have a strategic business plan (Item 1a in Table 1 on page 18 of *Best-Practice Management of Water Supply and Sewerage Guidelines*)?		
b. Does the strategic business plan include a 20 year financial plan (Item 1b in Table 1)?		
2. Pricing		
a. Does LWU have full cost recovery (Item 2a in Table 1)?		
b. Does LWU have complying residential charges (Item 2c in Table 1)?		
c. Does LWU have complying non-residential charges (Item 2c in Table 1)?		
d. Does LWU have complying liquid trade waste fees and charges (Item 2d in Table 1)?		
e. Does LWU have commercial developer charges (Item 2e in Table 1)?		
f. Does LWU issue a liquid trade waste approval for each trade waste discharger (Item 2f in Table 1)?		
3. Performance Reporting		
Has LWU provided sewerage reporting forms to DEUS by 31 October (Item 5 Table 1)?		
4. Integrated Water Cycle Management		
Has LWU implemented an integrated water cycle management strategy (Item 6 Table 1)?		

NOTES TO THE SPECIAL PURPOSE FINANCIAL REPORTS
Example Note 2

WATER SUPPLY BUSINESS BEST PRACTICE MANAGEMENT DISCLOSURE REQUIREMENTS

NOTE DOLLAR AMOUNT TO BE SHOWN AS WHOLE DOLLARS FOR NOTE 2

Calculation and Payment of Tax-Equivalents

(i) Calculated Tax-Equivalents	
(ii) No. of assessments multiplied by $3/assessment	
(iii) Amounts payable for Tax-Equivalents (lesser of (i) and (ii))	
(iv) Amounts paid for Tax-Equivalents	

Dividend from Surplus

(i) 50% of Surplus before Dividends

(Calculated in accordance with Best Practice Management for Water Supply and Sewerage Guidelines)

(ii)No. of assessments multiplied by $30/assessment, less tax equivalent charges/assessment

(iii) Cumulative Surplus before Dividends for the 3 years to 30 June 2004, less the cumulative Dividends Paid for the 2 years to 30 June 2003

(iv) Maximum Dividend from Surplus (least of (i), (ii) and (iii))

(v) Dividend paid from Surplus

Required Outcomes for 6 Criteria	**Yes**	**No**
(1). Completion of Strategic Business Plan (including Financial Plan)		
(2) Pricing with full cost-recovery, without significant cross subsidies (Item 2(a) in Table 1 on page 18 of the Best Practice Guidelines)		
Complying charges (a) Residential (Item 2(b) in Table 1)		
(b) Non-residential (Item 2(b) in Table 1)		
DSP with Commercial Developer Charges (Item 2(e) in Table 1)		
(3) Complete performance Reporting Form by 31 October each year		
(4) Sound Demand Management implemented		
(5) Sound Drought Management implemented (by June 2005)		
(6) Integrated Water Cycle Management Strategy (by June 2005)		

NOTES TO THE SPECIAL PURPOSE FINANCIAL REPORTS

Example Note 3

NOTE DOLLAR AMOUNT TO BE SHOWN AS WHOLE DOLLARS FOR NOTE 3

SEWERAGE BUSINESS BEST PRACTICE MANAGEMENT DISCLOSURE REQUIREMENTS

Calculation and Payment of Tax-Equivalents

(i) Calculated Tax-Equivalents	
(ii) No. of assessments multiplied by $3/assessment	
(iii) Amounts payable for Tax-Equivalents (lesser of (i) and (ii))	
(iv) Amounts paid for Tax-Equivalents	

Dividend from Surplus

(i) 50% of Surplus before Dividends

(Calculated in accordance with Best Practice Management for Water Supply and Sewerage Guidelines)

(ii)No. of assessments multiplied by $30/assessment, less tax equivalent charges/assessment

(iii) Cumulative Surplus before Dividends for the 3 years to 30 June 2004, less the cumulative Dividends Paid for the 2 years to 30 June 2003

(iv) Maximum Dividend from Surplus (least of (i), (ii) and (iii))

(v) Dividend paid from Surplus

Required Outcomes for 4 Criteria

	Yes	**No**
(1) Complete Strategic Business Plan (including Financial Plan)		
(2) Pricing with full cost-recovery, without significant cross subsidies (Item 2(a) in Table 1)		
Complying charges: (a) Residential (Item 2(c) in Table 1)		
(b) Non-residential (Item 2(c) in Table 1)		
(c) Trade Waste (Item 2(d) in Table 1)		
DSP with Commercial Developer Charges (Item 2(e) in Table 1)		
Liquid Trade Waste Approvals and Policy (by June 2005) (Item 2(f) in Table 1)		
(3) Complete Performance Reporting Form by 31 October each year		
(4) Integrated Water Cycle Management Strategy (by June 2005)		

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Formulae for Calculation of Performance Indicators in Table 5

5. 2003/04 NSW Water Utility Performance Summary

Column No.	Performance Indicator	Background to Formula	Formula
	Water Supply		
(1)	Water Supply Assessments (No.)	Total number of water supply assessments (Residential plus Non-residential). Where the reported data is ambiguous, the figure has been determined from Special Schedule No. 3 or previous year's data.	From Col (18) Table 9
(2)	Total Water Supplied (Potable + Non-potable) (ML)	Total annual water supplied (Residential plus Non-residential). Where a Local Water Utility (LWU) has not reported the total water supplied, the previous year's value has been used and is shown in italics bold.	From Col (49) Table 10
(3)	Average Annual Residential Consumption (Potable) (kL/ connected property)	Where an LWU has not reported potable residential water consumption, the residential consumption has been estimated as 59% of the reported annual potable water consumption. As shown in Note 7 of Table 8, the average reported residential consumption is 59% of the total potable water supplied.	From Col (56) Table 10
(4)	Turnover ($M)	Total Revenue excluding grants for acquisition of assets [Residential Charges + Non-residential Charges + Extra Charges + Interest + Grants (excluding receipts from government for Acquisition of Assets) + Contributions (Developer Charges + Developer Provided Assets + Other Contributions)].	From Col (57) Table 11
(5)	2004/05 Tariff Pay-for-Use? (Yes/No)		From Col (1) Table 6
(6)	2004/05 Residential Tariff Independent of Land Value? (Yes/No)		From Col (3) Table 6
(7)	Water Quality Compliance - Chemical (%)	Chemical water quality compliance	From Col (70) Table 12
(8)	Water Quality Compliance - Microbiological - E. coli (%)	Number of samples tested that meet the water quality requirements divided by the total number of samples tested. Note that this is the number of samples not tests, one sample may have a number of tests performed.	From Col (71) Table 12
	Sewerage		
(9)	Turnover ($M)	Total Revenue excluding grants for acquisition of assets [Residential Charges + Non-residential Charges + Trade Waste Charges + Extra Charges + Interest + Other Revenues + Grants (excluding receipts from government for Acquisition of Assets) + Contributions (Developer Charges + Developer Provided Assets + Other Contributions)].	From Col (42) Table 16
(10)	2004/05 Residential Tariff Independent of Land Value? (Yes/No)		From Col (3) Table 7
(11)	DEC Licence Compliance - BOD (%)		From Col (55) Table 17
(12)	DEC Licence Compliance - SS (%)		From Col (57) Table 17
	Water Supply and Sewerage		
(13)	Total Turnover ($M)	Water Supply Turnover + Sewerage Turnover	Col (4) Table 5 + Col (9) Table 5
(13a)	Typical Residential Bill ($/assessment)	Sum of water and sewerage Typical Residential Bills.	Col (8) Table 6 + Col (8) Table 7
(14)	Typical Developer Charge ($/ET)	Sum of water and sewerage Typical Developer Charges.	Col (7) Table 6 + Col (7) Table 7
(15)	Economic Real Rate of Return (%)	Revenue from operations (water supply and sewerage) less operating expenses (OMA + current cost depreciation) divided by written down replacement value of water supply and sewerage operational assets. Revenue from operations excludes interest income, grants for acquisition of assets or gain/loss on disposal of assets.	$[(W_{15} + W_{4a} - W9 - W_{11a} - W_{14}) + (S_{16} + S_{4a} - S_{10} - S_{12a} - S_{15})] \times 100 \div (S_{48}+W_{47})$
(16)	Debt/Equity (%)	Debt (water supply and sewerage) divided by equity (water supply and sewerage). Debt is borrowings plus bank overdrafts. Equity is Total Assets less Total Liabilities.	$[(W_{36} + W_{38}) + (S_{37} + S_{39})] \times 100 \div (W_{44}+ S_{45})$
(17)	OMA Cost ($/connected property)	Total water supply and sewerage operation, maintenance and administration (OMA) costs (excluding cost of purchasing water) divided by number of connected properties. OMA includes engineering and supervision costs.	Col (67) Table 11 + Col (52) Table 16
(18)	Management Cost ($/connected property)	Total water supply and sewerage management costs divided by number of connected properties.	Col (69) Table 11 + Col (54) Table 16
(19)	Current Replacement Cost of System Assets ($M)	The value of the infrastructure assets (water supply + sewerage) expressed in terms of how much it would cost to construct modern assets to provide the same function (ie. MEERA - Modern Engineering Equivalent Replacement Asset).	Col (61) Table 11 + Col (46) Table 16
(20)	Pay-for-Use Pricing & Full Cost Recovery? (Yes/No)		Cols (1) and (12) Table 6 and Cols (1) and (11) Table 7
(21)	Strategic Business Plans Prepared? (Yes/No)		

Notes:

A. References to W (eg. W_{15}) refer to items in Special Schedules Nos 3 and 4 of each LWU's Annual Financial Statement. Similarly, references to S (eg. S_{16}) refer to each LWU's Special Schedules Nos 5 and 6.

B. Where LWU data is missing or ambiguous, the figure has been determined from other supporting information (eg. Financial data or previous year's data).

Formulae for Calculation of Performance Indicators in Table 6 and 7

6. Water Supply - 2003/04 Charges, 2004/05 Bills

Column No.	Performance Indicator	Background to Formula	Formula
(1)	Type of Tariff	Description of tariff.	From Council's Schedule of Fees and Charges
(2)	Access Charge ($)	Fixed charge component of tariff.	From Council's Schedule of Fees and Charges
(3)	Independent of Land Value? (Yes/No)	Is tariff independent of land value or does council have a rates component?	From Council's Schedule of Fees and Charges
(4)	Allowance (kL)		From Council's Schedule of Fees and Charges
(5)	Usage Charge for Steps 1 and 2 (c/kL)	Includes first two steps of usage charges ("All" if no steps or "N/A" if not applicable)	From Council's Schedule of Fees and Charges
(6)	Operating Cost (OMA) c/kL	Total operation, maintenance and administration cost (excluding purchase of water) divided by total annual town water consumption (potable + non-potable - recycled).	$[W_1 + W_{2a\ to\ n}] \div$ [Col (12) Table 8]
(7)	Typical Developer Charge 2004/05 ($/Equivalent Tenement(ET))	Upfront infrastructure contribution for new developments.	Q_{36a} (see notes C & D)
(8)	Typical Residential Bill 2004/05 ($/assessment) (see note D)	Calculated using the average residential water consumption for 2003/04 multiplied by the usage charges for 2004/05 plus the access charge for 2004/05.	Col(5) x Col(14) ÷ 100 + Col(2)
(9)	Average Residential Bill 2003/04 ($/property) (see Note D)	Calculated using the revenue from residential rates and usage charges for 2003/04 divided by the number of connected residential properties.	$(W_{6a} + W_{6b}) \div$ [Cols (18)x(21)x(22) Table 9]
(10)	Not Used		
(11)	OMA + Depreciation ($/property)	Total operation, maintenance and administration cost (excluding purchase of water) plus depreciation divided by number of connected properties. (Depreciation includes system assets + plant and equipment).	$[W_1 + W_{2a\ to\ n} + W_3] \div$ [Col (20) Table 9]
(12)	Economic Real Rate of Return (%)	Revenue from operations less operating expenses (OMA + current cost depreciation) divided by written down replacement value of operational assets. Revenue from operations excludes interest income, grants for acquisition of assets and gain/loss on disposal of assets.	$[(W_{15} + W_{4a} - W_9 - W_{11a} - W_{14})] \times 100 \div (W_{47})$
(13)	Residential Revenue from Usage Charges (% of residential bills)	Revenue from residential usage charges divided by total residential revenue (residential usage plus access charges including any rates).	$W_{6b} \times 100 \div [W_{6a} + W_{6b}]$
(14)	Average Annual Residential Consumption (potable) (kL/property)	Average annual residential consumption (potable). Where an LWU has not reported residential consumption and at least one of commercial and industrial consumption, 59% of the total potable supply has been used.	From Table 8 Col(1) ÷ [Cols(18) x (21) x (22) Table 9]
(15)	Connected Properties	Total connected properties (residential plus non-residential). Calculated from number of assessments multiplied by the ratio of connected properties to assessments.	from Col(20) Table 9

7. Sewerage - Charges, Bills

Column No.	Performance Indicator	Background to Formula	Formula
(1)	Access Charge ($)	Fixed charge component of tariff.	From Council's Schedule of Fees and Charges
(2)	Operating Cost (OMA) c/kL	Total operation, maintenance and administration cost divided by total volume of sewage collected.	$[S_1 + S_{2a\ to\ m}] \times 100 \div$ [Col(32) Table 15]
(3)	Independent of Land Value? (Yes/No)		From Council's Schedule of Fees and Charges
(3a)	Non-residential Sewer Usage Charge (c/kL)	Non-residential sewer usage charges not including sewer discharge factor.	From Council's Schedule of Fees and Charges
(4)	Liquid Trade Waste Fees & Charges? (Yes/No)		From Council's Schedule of Rates, Fees and Charges
(5)	Non-residential & Trade Waste Charges (% of Annual Rates and Charges)	Non-residential charges plus trade waste charges divided by (residential charges + non-residential charges + trade waste charges).	$[S_7 + S_8] \times 100 \div [S_6 + S_7 + S_8]$
(6)	Non-residential & Trade Waste Volume (% of Total Volume of Sewage Collected)		(36) + (37) Table 15
(7)	Typical Developer Charge 2004/05 ($/Equivalent Tenement(ET))	Upfront infrastructure contribution for new developments.	Q_{36a} (see notes C & D)
(8)	Typical Residential Bill 2004/05 ($/assessment) (see note D)	Calculated using the access charge for 2004/05 plus, if council has residential sewer usage charges, the average residential water consumption for 2003/04 multiplied by the usage charges and usage factor for 2004/05.	(1)
(9)	Average Residential Bill 2003/04 ($/property) (see Note D)	Calculated using the revenue from residential rates and usage charges for 2003/04 divided by the number of connected residential properties. This is generally less than the TRB, due largely to pensioner rebates.	$[S_{6a} + S_{6b}] \div$ [Col(3) Table 14]
(10)	OMA + Depreciation ($/property)	Total operation, maintenance and administration cost plus depreciation divided by number of connected properties. (Depreciation includes system assets + plant and equipment).	Col(53) Table 16
(11)	Economic Real Rate of Return (%)	Revenue from operations less operating expenses (OMA + current cost depreciation) divided by written down replacement value of operational assets. Revenue from operations excludes interest income, grants for acquisition of assets or gain/loss on disposal.	$[(S_{16} + S_{4a} - S_{10} - S_{12a} - S_{15})] \times 100 \div (S_{48})$
(12)	Connected Properties	Total connected properties (residential plus non-residential). Calculated from number of assessments multiplied by the ratio of connected properties to assessments.	from Col(3) Table 16

Notes:

A. References to Q (eg. Q_{4a}) refer to questions on each LWU's Annual Water Supply Reporting Form. For table 7, this refers to the LWU's Annual Sewerage Reporting Form.

B. References to W (eg. W_{15}) refer to items in Special Schedules Nos 3 and 4 of each LWU's Annual Financial Statement.

C. Developer Charges under $400/ET have not been included in Table 6.

D. Where LWU data is missing or ambiguous, the figure has been determined from other supporting information (eg. Special Schedule No.3, previous year's data).

Formulae for Calculation of Performance Indicators in Table 8 & 9

8. 2003/04 Water Consumptions in Non-Metropolitan NSW

Column No.	Performance Indicator	Background to Formula	Formula
(1)	Residential	Domestic (inhouse and ex-house) potable water consumption.	Q_{12a}
(2)	Commercial	Offices, shops, clubs, hotels, motels, caravan parks potable consumption.	Q_{12b}
(3)	Industrial	Factories, mills, poultry, feed lots, sale yards, abbatoirs, mining potable consumption.	Q_{12c}
(4)	Rural	Farms or hobby farms outside urban zoned land, includes stock and domestic uses, market gardens, agricultural irrigation potable consumption.	Q_{12d}
(5)	Institutional	Hospitals, schools, colleges etc potable consumption.	Q_{12e}
(6)	Bulk Sales	Sales to other Local Water Utilities (LWUs) of potable water.	Q_{12f}
(7)	Public Parks and Gardens	Watering of public parks, gardens, ovals etc using potable water.	Q_{12g}
(8)	Water Losses (see note C)	Apparent losses plus real losses. Includes leakage (real loss), theft and illegal connections, illegal use of unmetered customer fire services, fire fighting (street hydrants), mains flushing, under-registration of customer meters, errors in system meters and total estimated non-metered consumption of potable water.	Q_{12h}
(9)	Real Loss (see note C)	Leakage plus theft plus illegal use of potable water. Real loss is included in water losses.	Q_{12k}
(10)	Total Potable Town Water Supply (see note C)	Sum of columns (1) to (8).	Q_{12i}
(11)	Non- Potable Town Water Supply	Includes untreated water for industry or non-potable water component in a dual water supply system and may also include recycled water .	Q_{14}
(12)	Total Annual Town Water Consumption	Total consumption equals the sum of potable consumption plus non-potable supply for industry or non-potable component in a dual supply system less recycled water for non-potable supply. This should equal the sum of the consumptions shown in columns (15), (16) and (17).	$Q_{12i} + Q_{14a} - Q_{15f}$ (Check = $Q_{15i} - Q_{15f} - Q_{15g} - Q_{15h}$)
(13)	Recycled Water for Non-Potable Town Water Supply	The volume of recycled water should be consistent with the volume shown in Q42d of the Sewerage Report.	Q_{15f}
(14)	Recycled Water for Agricultural use	The volume of recycled water should be consistent with the volume shown in Q42a to Q42c of the Sewerage Report.	$Q_{42a} + Q_{42b} + Q_{42c}$ (sewerage)
(15)	Surface Water Consumption	Surface water plus ground water plus bulk purchases should equal total annual water consumption.	$Q_{12i} + Q_{14} = Q_{15i}$
(16)	Groundwater Consumption		Q_{15e}
(17)	Bulk Purchases	Potable plus non-potable	$Q_{15g} + Q_{15h}$

9. Water Supply - Utility Characteristics

Column No.	Performance Indicator	Background to Formula	Formula
(18)	Total No. of Assessments (see notes C & D)	Where this data is ambiguous or missing, it has been estimated from other supporting information (financial data, previous year's data).	$(Q_{4a} + Q_{4b})$
(19)	Ratio of Connected Properties to Assessments (see notes C & D)	Many LWUs have provided insufficient data to calculate the number of Connected Properties per Assessment. A value has been estimated by DEUS for such LWUs.	$[Q_{2a} + (Q_{2c} \times Q_{2b}) + Q_3] \div$ Col(18) Table 9
(20)	Connected Properties (see note E)	Total connected properties (residential plus non-residential). Calculated from number of assessments multiplied by the ratio of connected properties to assessments.	Col(18) x Col(19) Table 9
(21)	Ratio of Residential Assessments to Total Assessments (see notes C & D)	Many Local Water Utilities (LWUs) have provided insufficient data to calculate the number of Residential Assessments per Total Assessment. A value has been estimated by DEUS for such LWUs.	[Q2a + (Q2c x Q2b) + Q3] ÷ Col(18) Table 9
(22)	Ratio of Residential Connections to Residential Assessments (see notes C & D)	Many LWUs have provided insufficient data to calculate the number of Connected Residential Properties per Residential Assessment. A value has been estimated by DEUS for such LWUs.	$[Q_{2a} + (Q_{2c} \times Q_{2b})] \div Q_{4a}$
(23)	Permanent Population	Where this data is ambiguous or missing, it has been estimated from other supporting information (financial data, previous year's data).	Q_{1a}
(24)	Peak Population		Q_{1b}
(25)	Mains	Total length of mains including trunk mains and reticulation.	Q_{10c}
(26)	Water Treatment Works	Number of works.	Q_{8e}
(26a)	Other Limited Treatment	Number of Chlorinators	
(27)	Dams	Number of dams.	Q_{8c}
(28)	Pumping Stations	Number of pumping stations.	Q_{8g}
(29)	Properties Served per km of main	Total number of connected properties divided by length of mains.	Col(20) ÷ Col(25) Table 9
(30)	Pumping Stations per 100km of main	Number of pumping stations divided by length of main.	Col(28) ÷ [Col(25) ÷ 100] Table 9
(31)	Capital Investment	The amount spent on acquisition of system assets (subsidised or other new system assets) and on system renewals.	W16a + W16b + W16c
(32)	Total Workforce (water supply)	Equivalent full time employees involved with water supply.	Q_{30a}
(33)	% Female	% of equivalent full time female employees in total water supply workforce.	$Q_{30b} \times 100 \div Q_{30a}$
(34)	% Undergoing Training	% of employees in water supply workforce undergoing training for 2 or more days during the year.	$Q_{30c} \times 100 \div Q_{30a}$
(35)	Outsourcing % of Management Cost	% expended on outsourcing for management of water supply business.	TBL Supplement Q_{7a}
(36)	Outsourcing % of Operation Cost	% expended on outsourcing for operation of water supply business.	TBL Supplement Q_{7b}
(37)	Outsourcing % of Maintenance Cost	% expended on outsourcing for maintenance of water supply business.	TBL Supplement Q_{7c}
(38)	Number of Injuries	Number of injuries (fatality, permanent disability or time loss of one or more days) in water supply business.	Q_{31b}
(39)	Days Lost	Number of days lost for all reasons (disputes, sick leave, accidents) in water supply business.	Q_{31a}
(40)	Days Lost due to Injuries	Number of days lost due to injuries (time loss of one or more days) in water supply business.	Q_{31c}

Notes:

A. References to Q (eg. Q_{12a}) refer to questions on each LWU's Annual Water Supply Reporting Form.

B. References to W (eg. W_{15}) refer to items in Special Schedules Nos 3 and 4 of each LWU's Annual Financial Statement.

C. Where LWU data is missing or ambiguous, the figure has been determined from other supporting information (eg. Financial data, previous year's data).

D. Many LWUs have provided insufficient data to calculate the number of Connected Properties per Assessment. A value has been estimated by DEUS for such LWUs (see also note E).

E. The number of connected properties is generally not well reported. A common error is to report the number of flats served rather than the number of blocks of flats in Question 2b of the Performance Reporting Forms. See Note 4 on page 3 of the report.

Formulae for Calculation of Performance Indicators in Table 10 & 11

10. Water Supply - 2003/04 Asset Management

Column No.	Performance Indicator	Background to Formula	Formula
(41)	Leakage	Real loss or leakage per 100km of main.	$Q_{12k} \div (Q_{10c} \div 100)$
(42)	Main Breaks	Number of main breaks per 100km of main. A main break is where the water main has to be shut down. Excludes service connection breaks.	$Q_{28a} \div (Q_{10c} \div 100)$
(43)	Interruptions to Supply	Number of properties affected by unplanned interruptions to supply per 1000 properties. Includes each occurrence. Excludes breaks in service connections or instances of low pressure.	Q_{25} x 1000 ÷ Col(20) Table 9
(44)	Rehabilitation of mains	Length of mains rehabilitated per 100km of main.	$Q_{11a} \div (Q_{10c} \div 100)$
(45)	Rehabilitation of service connections	Number of service connections rehabilitated as % of total.	Q_{11b} x 100 ÷ Col(20) Table 9
(46)	Renewals per 100km of main	Expenditure on renewals of mains per 100km of main.	$W_{16c} \div (Q_{10c} \div 100)$
(47)	Renewals as % of CRC	Expenditure on renewals of mains as percentage of Current Replacement Cost (CRC) of systems assets.	W_{16c} x 100 ÷ (Col(61) Table 11 x 1000)
(48)	Mains Maintenance Cost	Expenditure on maintenance of mains per 100km of main.	$W_{2d} \div (Q_{10c} \div 100)$
(49)	Total Town Water Supplied (ML)	Where an LWU has not reported total potable consumption, the previous year's consumption has been adopted and is shown in italics bold.	see column (12) on Table 8
(50)	Non-potable Town Water Supply (ML)	Where an LWU has not reported total potable consumption, the previous year's consumption has been adopted and is shown in italics bold.	see column (11) on Table 8
(51)	Recycled Water for Non-potable Town Water Supply (ML)	For non-potable town water supply.	see column (13) on Table 8
(52)	Recycled Water for Agricultural Use (ML)	For agricultural use.	see column (14) on Table 8
(53)	Peak Week to Average Consumption (%)	Average daily consumption over peak week (ML/d) divided by average daily consumption .	$W_{13b} \div [Col(49) \div 365]$
(54)	Drought Management Policy in Place	Yes or No.	TBL Supplement Q_{3b}
(55)	Water Conservation Policy in Place	Yes or No.	TBL Supplement Q_{3a}
(56)	Average Annual Residential Consumption (Potable) (kL/property)	Average annual residential consumption (potable). Where an LWU has not reported residential consumption and at least one of commercial and industrial consumption, 57% of the total potable supply has been used.	From Table 8 Col(1) ÷ [Cols(18) x (21) x (22) Table 9]

11. Water Supply - Financial, Efficiency

Column No.	Performance Indicator	Background to Formula	Formula
(57)	Total Turnover (excl Capital Works Grants) ($'000)	Total Revenue excluding grants for acquisition of assets [Residential Charges + Non-residential Charges + Extra Charges + Interest + Other Revenues + Grants (excluding receipts from government for Acquisition of Assets) + Contributions (Developer Charges + Developer Provided Assets + Other Contributions)].	$(W_{13} - W_{11a}) \div 1000$
(58)	Residential Revenue (% of rates and charges total)	Where an LWU has not reported a breakdown of revenue from rates and charges and sales into residential and non-residential, the percentage revenue for such LWUs has been estimated from the reported percentages of similar LWUs.	$(W_{6a} + W_{6b})$ x 100 ÷ $(W_6 + W_7)$
(59)	Residential Consumption (% of potable consumption excluding water losses)	% of potable water excluding water losses.	$(Q_{12a} \div (Q_{12i} - Q_{12h}))$ x 100
(60)	Written Down Replacement Cost ($M)	Written down replacement cost of system assets.	$W_{47} \div 1{,}000$
(61)	Current Replacement Cost (CRC) of System Assets ($M)	The value of the infrastructure assets expressed in terms of how much it would cost to construct modern assets to provide the same function (ie. MEERA - Modern Engineering Equivalent Replacement Asset).	$W_{45} \div 1{,}000$
(62)	Current Replacement Cost per Assessment ($)	The value of the infrastructure assets divided by the number of assessments.	$W_{45} \div$ Col(18) Table 9
(63)	Debt to Equity (%)	All overdrafts, repayable borrowings, interest bearing non-repayable borrowings, advances and leases divided by total equity.	$(W_{36} + W_{38})$ x 100 ÷ W_{44}
(64a)	Cross Subsidies (Annual Charges & Fees)	Cross subsidies from residential customers using less than allowance to non-residential customers and to large connections in unmetered supplies.	$(W_{27b} + W_{27c} + W_{27d}) \div$ Col(18) Table 9
(64b)	Cross Subsidies (Developer Charges)	Cross subsidies in water supply developer charges.	$(W_{28b}) \div$ Col(18) Table 9
(65)	Operating Result ($/property)	Total revenue less total expenses less grants for acquisition of assets divided by total number of connected properties.	$(W_{15a}) \div$ Col(20) Table 9
(66)	Externalities ($/property)	Water fees paid by LWUs to DEUS.	From DEUS records
(67)	Operating Cost OMA ($/property)	Total operation, maintenance and administration costs (excluding cost of purchasing water) divided by total number of connected properties.	$[W_1 + W_{2(a\ to\ n)}] \div$ Col(20) Table 9 plus bulk suppliers OMA
(68)	OMA + Depreciation ($/property)	Total operation, maintenance and administration costs (excluding cost of purchasing water) + depreciation costs (system assets plus plant & equipment) divided by total number of connected properties.	$[W_1 + W_{2(a\ to\ n)} + W_3] \div$ Col(20) Table 9 plus bulk suppliers OMA and depreciation
(68a)	Management Cost ($/property)	Total management costs divided by total number of connected properties.	$W_1 \div$ Col(20) Table 9

Notes:

A. References to Q (eg. Q_{12a}) refer to questions on each LWU's Annual Water Supply Reporting Form.

B. References to W (eg. W_{15}) refer to items in Special Schedules Nos 3 and 4 of each LWU's Annual Financial Statement.

C. Where LWU data is missing or ambiguous, the figure has been determined from other supporting information (eg. Financial data, previous year's data).

Formulae for Calculation of Performance Indicators in Table 12

12. Water Supply - 2003/04 Health, Levels of Service

Column No.	Performance Indicator	Background to Formula	Formula
(69)	Water Quality Compliance - Physical (%)	Overall compliance with physical requirements including the key characteristics of turbidity, pH and colour. Compliance refers to the number of samples taken for system performance monitoring and not the number of tests. Excludes samples taken for operational monitoring.	see note C
(70)	Water Quality Compliance - Chemical (%)	Overall compliance with chemical requirements. Compliance refers to the number of samples taken for system performance monitoring and not the number of tests. Excludes samples taken for operational monitoring.	see note C
(71)	Water Quality Compliance - E. coli (%)	E.coli contamination is the primary health-related indicator. Compliance refers to the number of samples taken for system performance monitoring and not the number of tests. Excludes samples taken for operational monitoring.	see note D
(72)	Water Quality Compliance - Total Coliforms(%)	Compliance refers to the number of samples taken for system performance monitoring and not the number of tests. Excludes samples taken for operational monitoring.	see note D
(73)	Water Quality Complaints (per 1000 properties)	Complaints are any expression of customer dissatisfaction reported in person, by phone, fax, letter or email. Water quality complaints are reported under the relevant source water treatment works.	Q_{46a} x 1000 ÷ Col(20) Table 9
(74)	Water Service Complaints (per 1000 properties)	Complaints are any expression of customer dissatisfaction reported in person, by phone, fax, letter or email.	Q_{20a} x 1000 ÷ Col(20) Table 9
(75)	Written Complaints (per 1000 properties)	Written complaints of customer dissatisfaction.	Q_{24a} x 1000 ÷ Col(20) Table 9
(76)	Average Customer Outage Time (min)	Number of interruptions multiplied by average time to restore supply divided by connected properties.	(Q_{25} x Q_{26} x 60) ÷ Col(20) Table 9
(77)	Customer Interruption Frequency (No./1000 properties)	Includes each occurrence of unplanned interruptions to supply. Excludes reduced levels of service or breaks in service connections.	[Q_{25} x 1000] ÷ Col(20) Table 9
(78)	Average Duration of Interruptions (hours)	Average duration of unplanned interruptions.	Q_{26}

Notes:

A. References to Q (eg. Q_{4a}) refer to questions on each LWU's Annual Water Supply Reporting Form.

B. References to W (eg. W_{15}) refer to items in Special Schedules Nos 3 and 4 of each LWU's Annual Financial Statement.

C. Physical compliance - sum for each treatment works, Q_{42a} multiplied by Q_{42b} for that treatment works. Divide the total by the sum of Q_{42b} for all treatment works.
Chemical compliance - sum for each treatment works, Q_{42c} multiplied by Q_{42d} for that treatment works. Divide the total by the sum of Q_{42d} for all treatment works.

D. Sum for each treatment works, Q_{42k}, multiplied by Q_{42l} for that treatment works. Divide the total by the sum of Q_{42l} for all treatment works.
An LWU complied with the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines for E. coli if the required number of samples was tested and:

At least 98% of the samples contained no E. coli

For LWUs which did not comply, the percentage of samples complying is shown.

E. Where LWU data is missing or ambiguous, the figure has been determined from other supporting information (eg. Special Schedule No.3, previous year's data).

Formulae for Calculation of Performance Indicators in Table 13

13. Water Supply - 2003/04 Benchmarking Cost Data

Column No.	Performance Indicator	Background to Formula	Formula
(79)	Operating Cost Components - Maintenance ($/property)	Maintenance cost of all water system assets.	$[W_{2b} + W_{2d} + W_{2f} + W_{2i} + W_{2l} + W_{2n}] \div$ Col(20) Table 9
(80)	Operating Cost Components - Operation ($/property)	Operation cost of all water system assets.	$[W_{2a} + W_{2c} + W_{2e} + W_{2g} + W_{2j} + W_{2m}] \div$ Col(20) Table 9
(81)	Operating Cost Components - Energy ($/property)	Energy cost of water pumping and treatment.	$[W_{2h}] \div$ Col(20) Table 9
(82)	Operating Cost Components - Chemicals ($/property)	The chemicals cost for water treatment.	$[W_{2k}] \div$ Col(20) Table 9
(83)	Operating Cost Components - Dams & Weirs ($/property)	Operation and Maintenance cost of dams and weirs.	$[W_{2a} + W_{2b}] \div$ Col(20) Table 9
(84)	Operating Cost Components - Mains ($/property)	Operation and Maintenance cost of water mains.	$[W_{2c} + W_{2d}] \div$ Col(20) Table 9
(85)	Operating Cost Components - Reservoirs ($/property)	Operation and Maintenance cost of reservoirs.	$[W_{2e} + W_{2f}] \div$ Col(20) Table 9
(86)	Operating Cost Components - Pumping Stations ($/property)	Operation and Maintenance cost of water pumping stations.	$[W_{2g} + W_{2h} + W_{2i}] \div$ Col(20) Table 9
(87)	Operating Cost Components - Water Treatment ($/property)	Operation and Maintenance cost of water treatment works.	$[W_{2j} + W_{2k} + W_{2l}] \div$ Col(20) Table 9
(88)	Operating Cost Components - Other ($/property)	Operation and Maintenance cost of other water system assets.	$[W_{2m} + W_{2n} + W_{2o}] \div$ Col(20) Table 9
(89)	Management Cost Components - Administration ($/property)	From special schedule No. 3.	$[W_{1a}] \div$ Col(20) Table 9
(90)	Management Cost Components - Engineering & Supervision ($/property)	From special schedule No. 3.	$[W_{1b}] \div$ Col(20) Table 9
(91)	Management Cost Components - Total (c/kL)	From special schedule No. 3.	$[W_{1a} + W_{1b}] \times 100 \div$ Col(49) Table 10
(92)	Wholesale Component ($/property)	From the wholesale component estimated in the reporting forms.	$[W_1 + W_2] \times Q_{18a} \div$ Col(20) Table 9
(93)	Retail Component ($/property)	From the retail component estimated in the reporting forms.	$[W_1 + W_2] \times Q_{18b} \div$ Col(20) Table 9
(94)	Pumping Cost Components - Total Water Pumping Cost (c/kL)	From special schedule No. 3.	$[W_{2g} + W_{2h} + W_{2i}] \times 100 \div$ Col(49) Table 10
(95)	Pumping Cost Components - Total Water Pumping Cost ($/pumping station)	From special schedule No. 3.	$[W_{2g} + W_{2h} + W_{2i}] \div$ Col(28) Table 9
(96)	Pumping Cost Components - Operation ($/pumping station)	From special schedule No. 3.	$[W_{2g}] \div$ Col(28) Table 9
(97)	Pumping Cost Components - Maintenance ($/pumping station)	From special schedule No. 3.	$[W_{2i}] \div$ Col(28) Table 9
(98)	Pumping Cost Components - Energy ($/pumping station)	From special schedule No. 3.	$[W_{2h}] \div$ Col(28) Table 9
(99)	Pumping Cost Components - Energy Cost ($/property)	From special schedule No. 3.	$[W_{2h}] \div$ Col(20) Table 9
(100)	Water Main Cost Components - Total Water Main Cost (c/kL)	From special schedule No. 3.	$[W_{2c} + W_{2d}] \times 100 \div$ Col(49) Table 10
(101)	Water Main Cost Components - Total Water Main Cost ($'000/100km)	From special schedule No. 3.	$[W_{2c} + W_{2d}] \times 100 \div$ Col(25) Table 9
(102)	Water Main Cost Components - Operation ($'000/100km)	From special schedule No. 3.	$[W_{2c}] \times 100 \div$ Col(25) Table 9
(103)	Water Main Cost Components - Maintenance ($'000/100km)	From special schedule No. 3.	$[W_{2d}] \times 100 \div$ Col(25) Table 9
(104)	Treatment Cost Components - Total Water Treatment Cost (c/kL)	From special schedule No. 3.	$[W_{2j} + W_{2k} + W_{2l}] \times 100 \div$ Col(49) Table 10
(105)	Treatment Cost Components - Total Water Treatment Cost ($/property)	From special schedule No. 3.	$[W_{2j} + W_{2k} + W_{2l}] \div$ Col(20) Table 9
(106)	Treatment Cost Components - Operation ($/property)	From special schedule No. 3.	$[W_{2j}] \div$ Col(20) Table 9
(107)	Treatment Cost Components - Maintenance ($/property)	From special schedule No. 3.	$[W_{2l}] \div$ Col(20) Table 9

Notes:

A. References to Q (eg. Q_{4a}) refer to questions on each LWU's Annual Water Supply Reporting Form.

B. References to W (eg. W_{15}) refer to items in Special Schedules Nos 3 and 4 of each LWU's Annual Financial Statement.

C. Where LWU data is missing or ambiguous, the figure has been determined from other supporting information (eg. Financial data or previous year's data).

Formulae for Calculation of Performance Indicators in Table 14

14. Sewerage - Utility Characteristics

Column No.	Performance Indicator	Background to Formula	Formula
(1)	Total No. of Assessments (see notes D & E)	Where this data is ambiguous or missing, it has been estimated from other supporting information (financial data, previous year's data).	$(Q_{4a} + Q_{4b})$
(2)	Ratio of Connected Properties to Assessments (see notes D & E)	Many LWUs have provided insufficient data to calculate the number of Connected Properties per Assessment. A value has been estimated by DEUS for such LWUs.	$[Q_{2a} + (Q_{2c} \times Q_{2b}) + Q_3] \div$ Col(1) Table 14
(3)	Connected Properties (see note E)	Total connected properties (residential plus non-residential). Calculated from number of assessments multiplied by the ratio of connected properties to assessments.	Col(1) x Col(2)
(4)	Ratio of Residential Assessments to Total Assessments (see notes D & E)	Many Local Water Utilities (LWUs) have provided insufficient data to calculate the number of Residential Assessments per Total Assessment. A value has been estimated by DEUS for such LWUs.	$Q_{4a} \div$ Col(1) Table 14
(5)	Ratio of Residential Connections to Residential Assessments (see notes D & E)	Many LWUs have provided insufficient data to calculate the number of Connected Residential Properties per Residential Assessment. A value has been estimated by DEUS for such LWUs.	$[Q_{2a} + (Q_{2c} \times Q_{2b})] \div Q_{4a}$
(6)	Permanent Population	Where this data is ambiguous or missing, it has been estimated from other supporting information (financial data, previous year's data).	Q_{1a}
(7)	Peak Population		Q_{1b}
(8)	Mains	Total length of sewer mains including reticulation, gravity and rising mains.	Q_{10c}
(9)	Sewage Treatment Works	Number of treatment works.	Q_{8a}
(10)	Pumping Stations	Number of sewage pumping stations.	Q_{9a}
(11)	Properties Served per km of main	Total number of connected properties divided by length of mains.	Col(3) ÷ Col(8)
(12)	Pumping Stations per 100km of main	Number of pumping stations divided by length of main.	Col(10) ÷ Col(8) ÷ 100
(13)	Capital Investment	The amount spent on acquisition of system assets (subsidised or other new system assets) and on system renewals.	S17a + S17b + S17c
(14)	Total Workforce (water supply)	Equivalent full time employees involved with water supply.	Q_{29a}
(15)	% Female	% of equivalent full time female employees in total water supply workforce.	$Q_{29b} \times 100 \div Q_{29a}$
(16)	% Undergoing Training	% of employees in water supply workforce undergoing training for 2 or more days during the year.	$Q_{29c} \times 100 \div Q_{29a}$
(17)	Outsourcing % of Management Cost	% expended on outsourcing for management of sewerage business.	TBL Supplement Q_{7a}
(18)	Outsourcing % of Operation Cost	% expended on outsourcing for operation of sewerage business.	TBL Supplement Q_{7b}
(19)	Outsourcing % of Maintenance Cost	% expended on outsourcing for maintenance of sewerage business.	TBL Supplement Q_{7c}
(20)	Number of Injuries	Number of injuries (fatality, permanent disability or time loss of one or more days) in water supply business.	Q_{30b}
(21)	Days Lost	Number of days lost for all reasons (disputes, sick leave, accidents) in water supply business.	Q_{30a}
(22)	Days Lost due to Injuries	Number of days lost due to injuries (time loss of one or more days) in water supply business.	Q_{30c}

Notes:

A. References to Q (eg. Q_{12a}) refer to questions on each LWU's Annual Sewerage Reporting Form.

B. References to S (eg. S_{15}) refer to items in Special Schedules Nos 5 and 6 of each LWU's Annual Financial Statement.

C. Where LWU data is missing or ambiguous, the figure has been determined from other supporting information (eg. Financial data, previous year's data).

D. Many LWUs have provided insufficient data to calculate the number of Connected Properties per Assessment. A value has been estimated by DEUS for such LWUs (see also n

E. The number of connected properties is generally not well reported. A common error is to report the number of flats served rather than the number of blocks of flats in Question 2b of the Performance Reporting Forms. See Note 4 on page 3 of the report.

Formulae for Calculation of Performance Indicators in Table 15 & 16

15. Sewerage - 2003/04 Asset Management

Column No.	Performance Indicator	Background to Formula	Formula
(23)	Infiltration	Estimated groundwater infiltration and stormwater inflow into the system per 100km of main.	$Q_{12a} \div (Q_{10c} \div 100)$
(24)	Chokes and Collapses	Chokes and collapses are partial or total blockages resulting in an interruption to sewerage services or overflows at gully traps. Blockages in risers and sidelines are excluded.	$Q_{21} \div (Q_{10c} \div 100)$
(25)	Overflows	Recorded overflows in sewers, access chambers and pumping stations. Overflows in risers and sidelines are excluded.	$Q_{20} \div (Q_{10c} \div 100)$
(26)	Interruptions to Service	Number of properties affected by unplanned interruptions to service per 1000 properties. Includes each occurrence.	Q_{25} x 1000 ÷ Col(3) Table 14
(27)	Rehabilitation of mains	Length of mains rehabilitated as % of total length of main.	$Q_{11a} \div (Q_{10c} \div 100)$
(28)	Rehabilitation of service connections	Number of service connections rehabilitated as % of total.	Q_{11b} x 100 ÷ Col(3) Table 14
(29)	Renewals per 100km of main	Expenditure on renewals of mains per 100km of main.	$S_{17c} \div (Q_{10c} \div 100)$
(30)	Renewals as % of CRC	Expenditure on renewals of mains as % of Current Replacement Cost (CRC) of systems assets.	S_{17c} x 100 ÷ (Col(61) Table 11 x 1000)
(31)	Mains Maintenance Cost	Expenditure on maintenance of mains per 100km of main.	$S_{2b} \div (Q_{10c} \div 100)$
(32)	Total Volume of Sewage Collected (ML)	Total volume transported through sewerage network.	Q_{12e}
(33)	Percentage of Sewage Treated	% of total sewage collected.	Q_{41b} x 100 ÷ Q_{12e}
(34)	Infiltration	% of total sewage collected.	Q_{12a} x 100 ÷ Q_{12e}
(35)	Residential	% of total sewage collected.	Q_{42b} x 100 ÷ Q_{12e}
(36)	Non-residential	% of total sewage collected.	Q_{12c} x 100 ÷ Q_{12e}
(37)	Trade Waste	% of total sewage collected.	Q_{12d} x 100 ÷ Q_{12e}
(38)	Other	Remainder not reported under columns (34), (35), (36) or (37). % of total sewage collected.	100 - (34) - (35) - (36) - (37)
(39)	Volume of Sewage Treated per property		Q_{41} x 100 ÷ Col(3) Table 14
(40)	Biosolids Reused	% of biosolids (sludge) to farmland, landfill etc.	Q_{43b}
(41)	% of Effluent Reclaimed		$Q_{42f} \div Q_{12e}$

16. Sewerage - Financial, Efficiency

Column No.	Performance Indicator	Background to Formula	Formula
(42)	Total Turnover (excl Capital Works Grants) ($'000)	Total Revenue excluding grants for acquisition of assets [Residential Charges + Non-residential Charges + Trade Waste Charges + Extra Charges + Interest + Other Revenues + Grants (excluding receipts from government for Acquisition of Assets) + Contributions (Developer Charges + Developer Provided Assets + Other Contributions)].	$(S_{14} - S_{12a}) \div 1000$
(43)	Residential Revenue (% of rates and charges total)	Where an LWU has not reported a breakdown of revenue from rates and charges and sales into residential and non-residential, the percentage revenue for such LWUs has been estimated from the reported percentages of similar LWUs.	(S_6) x 100 ÷ $(S_6 + S_7)$
(44)	Residential Sewage (% of total collected excl infiltration/inflow)	% of total collected excluding infiltration and inflow.	$(Q_{12b} \div (Q_{12e} - Q_{12a}))$ x 100
(45)	Written Down Replacement Cost ($M)	Written down replacement cost of system assets.	$S_{48} \div 1{,}000$
(46)	Current Replacement Cost (CRC) of System Assets ($M)	The value of the infrastructure assets expressed in terms of how much it would cost to construct modern assets to provide the same function (ie. MEERA - Modern Engineering Equivalent Replacement Asset).	$S_{46} \div 1{,}000$
47)	Current Replacement Cost per Assessment ($)	The value of the infrastructure assets divided by the number of assessments.	$S_{46} \div$ Col(1) Table 14
(48)	Debt to Equity (%)	All overdrafts, repayable borrowings, interest bearing non-repayable borrowings, advances and leases divided by total equity.	$(S_{37} + S_{39})$ x 100 ÷ S_{45}
(49a)	Cross Subsidies (Annual Charges & Fees)	Cross subsidies from residential customers to non-residential customers and trade waste dischargers.	$(S_{28b} + S_{28c}) \div$ Col(1) Table 14
(49b)	Cross Subsidies (Developer Charges)	Cross subsidies in sewerage developer charges.	$(S_{29b}) \div$ Col(1) Table 14
(50)	Operating Result ($/property)	Total revenue less total expenses less grants for acquisition of assets divided by total number of connected properties.	$(S_{16a}) \div$ Col(3) Table 14
(51)	Externalities ($/property)	Sewage treatment works licence fees paid by LWU.	From DEC records
(52)	Operating Cost OMA ($/property)	Total operation, maintenance and administration costs divided by total number of connected properties.	$[S_1 + S_{2(a \text{ to } m)}] \div$ Col(3) Table 14
(53)	OMA + Depreciation ($/property)	Total operation, maintenance and administration costs + depreciation costs (system assets plus plant & equipment) divided by total number of connected properties.	$[S_1 + S_{2(a \text{ to } m)} + S_3] \div$ Col(3) Table 14
(54)	Management Cost ($/property)	Total management costs divided by total number of connected properties.	$S_1 \div$ Col(3) Table 14

Notes:

A. References to Q (eg. Q_{12a}) refer to questions on each LWU's Annual Sewerage Reporting Form.

B. References to S (eg. S_{15}) refer to items in Special Schedules Nos 5 and 6 of each LWU's Annual Financial Statement.

C. Where LWU data is missing or ambiguous, the figure has been determined from other supporting information (eg. Financial data, previous year's data).

Formulae for Calculation of Performance Indicators in Table 17

17. Sewerage - 2003/04 Environmental, Levels of Service

Column No.	Performance Indicator	Background to Formula	Formula
(55)	DEC Licence Compliance BOD (%)	Compliance refers to the number of samples taken for system performance monitoring and not the number of tests.	see note C
(56)	BOD 90 Percentile Discharge Licence Limit	Some councils only have 100 percentile licence limits for their treatment works. In this case the 100 percentile limits should be reported.	see note C
(57)	DEC Licence Compliance SS (%)	Compliance refers to the number of samples taken for system performance monitoring and not the number of tests.	see note D
(58)	SS 90 Percentile Discharge Licence Limit	Some councils only have 100 percentile licence limits for their treatment works. In this case the 100 percentile limits should be reported.	see note D
(59)	Sewer Main Chokes and Collapses	See Column (24) on Table 15.	$Q_{28a} \div (Q_{10c} \div 100)$
(60)	Sewer Overflows to the Environment	See Column (25) on Table 15.	$Q_{28a} \div (Q_{10c} \div 100)$
(61)	Odour Complaints (per 1000 properties)	Complaints are any expression of customer dissatisfaction reported in person, by phone, fax letter or email.	Q_{54} x 1000 ÷ Col(3) Table 14
(62)	Service Complaints (per 1000 properties)	Complaints are any expression of customer dissatisfaction reported in person, by phone, fax letter or email.	Q_{15} x 1000 ÷ Col(3) Table 14
(63)	Average Customer Outage Time (min)	No. of interruptions multiplied by average time to restore service divided by connected properties.	(Q_{25} x Q_{26} x 60) ÷ Col(3) Table 14
(64)	Customer Interruption Frequency (No./1000 properties)	Include each occurrence of unplanned interruptions to service. Do not include breaks in service connections.	[Q_{25} x 1000] ÷ Col(3) Table 14
(65)	Average Duration of Interruptions (Hours)	Average duration of unplanned interruptions.	Q_{26}

Notes:

A. References to Q (eg. Q_{4a}) refer to questions on each LWU's Annual Sewerage Reporting Form.

B. References to S (eg. S_{15}) refer to items in Special Schedules Nos 5 and 6 of each LWU's Annual Financial Statement.

C. Sum for each treatment works, the lesser of Q_{42a} and $Q_{42c,}$ multiplied by Q42b for that treatment works. Divide the total by the sum of Q42b for all treatment works.

D. Sum for each treatment works, $Q_{42k\ ,}$ multiplied by Q_{42l} for that treatment works. Divide the total by the sum of Q42l for all treatment works.
For LWUs which did not comply, the percentage of samples complying is shown.

E. Where LWU data is missing or ambiguous, the figure has been determined from other supporting information (eg. Special Schedule No.5, previous year's data).

Formulae for Calculation of Performance Indicators in Table 18

18. Sewerage - 2003/04 Benchmarking Cost Data

Column No.	Performance Indicator	Background to Formula	Formula
(66)	Operating Cost Components - Maintenance ($/property)	Maintenance cost of all sewerage system assets.	$[S_{2b} + S_{2e} + S_{2k} + S_{2m}] \div$ Col(3) Table 14
(67)	Operating Cost Components - Operation ($/property)	Operation cost of all sewerage system assets.	$[S_{2a} + S_{2c} + S_{2f} + S_{2l}] \div$ Col(3) Table 14
(68)	Operating Cost Components - Energy ($/property)	Energy cost of sewage treatment and pumping	$[S_{2h}] \div$ Col(3) Table 14
(69)	Operating Cost Components - Chemical Treatment ($/property)	The chemical cost of sewage treatment.	$[S_{2g}] \div$ Col(3) Table 14
(70)	Operating Cost Components - Mains ($/property)	Operation and Maintenance cost of sewage mains.	$[S_{2a} + S_{2b}] \div$ Col(3) Table 14
(71)	Operating Cost Components - Pumping Stations ($/property)	Operation and Maintenance cost of sewage pumping stations.	$[S_{2c} + S_{2d} + S_{2e}] \div$ Col(3) Table 14
(72)	Operating Cost Components - Sewage Treatment ($/property)	Operation and maintenance cost of sewage treatment.	$[S_{2f} + S_{2g} + S_{2h} + S_{2i} + S_{2j} + S_{2k}] \div$ Col(3) Table 14
(73)	Operating Cost Components - Other ($/property)	Operation and maintenance cost of other sewerage system assets.	$[S_{2l} + S_{2m}] \div$ Col(3) Table 14
(74)	Management Cost Components - Administration ($/property)	From special schedule No. 5.	$[S_{1a}] \div$ Col(3) Table 14
(75)	Management Cost Components - Engineering & Supervision ($/property)	From special schedule No. 5.	$[S_{1b}] \div$ Col(3) Table 14
(76)	Management Cost Components - Total (c/kL)	From special schedule No. 5.	$[S_{1a} + S_{1b}] \times 100 \div$ Col(32) Table 15
(77)	Wholesale Component ($/property)	The cost of sewage treatment.	[S2f + S2g + S2h + S2i + S2j + S2k] ÷ Col(3) Table 14
(78)	Retail Component ($/property)	The cost of transportation and reticulation.	[S2a + S2b + S2c + S2d + S2e] ÷ Col(3) Table 14
(79)	Pumping Cost Components - Total Sewage Pumping Cost (c/kL)	From special schedule No. 5.	$[S_{2c} + S_{2d} + S_{2e}] \times 100 \div$ Col(32) Table 15
(80)	Pumping Cost Components - Total Sewage Pumping Cost ($/pumping station)	From special schedule No. 5.	$[S_{2c} + S_{2d} + S_{2e}] \div$ Col(10) Table 14
(81)	Pumping Cost Components - Operation ($/pumping station)	From special schedule No. 5.	$[S_{2c}] \div$ Col(10) Table 14
(82)	Pumping Cost Components - Maintenance ($/pumping station)	From special schedule No. 5.	$[S_{2e}] \div$ Col(10) Table 14
(83)	Pumping Cost Components - Energy ($/pumping station)	From special schedule No. 5.	$[S_{2d}] \div$ Col(10) Table 14
(84)	Pumping Cost Components - Energy Cost ($/property)	From special schedule No. 5.	$[S_{2d}] \div$ Col(3) Table 14
(85)	Sewer Main Cost Components - Total Sewer Main Cost (c/kL)	From special schedule No. 5.	$[S_{2a} + S_{2b}] \times 100 \div$ Col(32) Table 15
(86)	Sewer Main Cost Components - Total Sewer Main Cost ($'000/100km)	From special schedule No. 5.	$[S_{2a} + S_{2b}] \times 100 \div$ Col(8) Table 14
(87)	Sewer Main Cost Components - Operation ($'000/100km)	From special schedule No. 5.	$[S_{2a}] \times 100 \div$ Col(8) Table 14
(88)	Sewer Main Cost Components - Maintenance ($'000/100km)	From special schedule No. 5.	$[S_{2b}] \times 100 \div$ Col(8) Table 14
(89)	Treatment Cost Components - Total Sewage Treatment Cost ($/ML)	From special schedule No. 5.	$[S_{2f} + S_{2g} + S_{2h} + S_{2i} + S_{2j} + S_{2k}] \div$ Col(32) Table 15
(90)	Treatment Cost Components - Operation ($/property)	From special schedule No. 5.	$[S_{2f}] \div$ Col(3) Table 14
(91)	Treatment Cost Components - Maintenance ($/property)	From special schedule No. 5.	$[S_{2k}] \div$ Col(3) Table 14
(92)	Treatment Cost Components - Chemical ($/property)	From special schedule No. 5.	$[S_{2g}] \div$ Col(3) Table 14

Notes:

A. References to Q (eg. Q_{4a}) refer to questions on each LWU's Annual Sewerage Reporting Form.

B. References to S (eg. S_{15}) refer to items in Special Schedules Nos 5 and 6 of each LWU's Annual Financial Statement.

C. Where LWU data is missing or ambiguous, the figure has been determined from other supporting information (eg. Financial data or previous year's data).

APPENDIX C

2003/04 LOCAL WATER UTILITY TBL PERFORMANCE REPORTS

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Riverina Water County Council — TBL Water Supply Performance — 2003/04

Water is drawn from Murrumbidgee River and 28 groundwater bores (103 ML/d) to supply Wagga Wagga, Holbrook, Lockhart and Henty. The system comprises 4 filtration, 7 aeration, and 2 aeration/filtration treatment works (106 ML/d) and 2 chlorination stations, 61 service reservoirs (155 ML), 70 pumping stations, 125 ML/d delivery capacity into the reticulation, 805 km of trunk mains and 568 km of reticulation. The number of microbiological test samples was 624 and the number of physical/chemical samples was 1,570. There was 100% compliance with microbiological (E.coli) water quality, 91% compliance with total coliform quality, 94% compliance with physical quality and 96% compliance with chemical quality. Non-compliance was mostly due to high iron and manganese levels and insufficient chlorine residual. There were no failures of the chlorination system or treatment system.The current replacement cost of system assets was $172M ($6,100/assessment), cash and investments were $15.4M, debt was $5M and turnover was $15.6M (excluding capital works grants).

Business Planning

Strategic Business Plan (SBP)	*Year Prepared*	1999/00	*Year Updated:*	2003/04	*Is Further Development Required [4] ?*	NO
Financial Sustainability of Business	*Demonstrated?*	YES	*Year Updated:*	2003/04	*Is Further Development Required [4] ?*	NO

Triple Bottom Line (TBL) Performance Indicators

				LWU Result	Ranking [1] (>10,000 Properties)	Ranking [2] (All LWUs)	Statewide Median [3]
UTILITY CHARACTERISTICS		1	***Population Served:*** 58,500 (0.96 connected properties per assessment)				
		2	***Number of Assessments***: 28,300 ***Number of Connected Properties*** 27,200				
		3	***Residential Assessments*** (% of total)	92		1	93
		4	***New Residential Dwellings Connected to Water Supply*** (%)	2.1	1	1	1.8
		5	***Properties Served per km*** (properties/km of main)	20		4	33
		6	***Rainfall*** (% of average annual rainfall)	77		2	75
		7	***Total Water Supplied*** (at Master Meters - ML)	16,100		1	6,500
		8	***Peak Week to Average Consumption*** (%)	188		4	120
		9	***Renewals Expenditure*** (% of current replacement cost of system assets)	0.6		1	0.0
		10	***Employees*** (employees/1000 properties)	1.8	3	3	1.3
SOCIAL	Charges/Bills	12	***Description of Residential [5] Tariff Structure 2004/05:*** Two Part ; Independent of Land Value				
		13	***Residential Water Usage Charge 2004/05 [5]*** (c/kL) *All Usage*	65		3	76
		14	***Residential Access Charge 2004/05*** ($/assessment)	80		1	185
		15	***Typical Residential Bill 2004/05*** ($/assessment)	310	2	1	330
		16	***Typical Developer Charge 2004/05*** ($/equivalent tenement)	2,700		3	2,500
		17	***Average Residential Bill 2003/04*** ($/connected property)	349	4	2	325
		18	***Bill for Residential Customer using 250kL/a (2003/04)*** ($/assessment)	243	1	1	315
	Health	20	***Urban Population without Reticulated Water Supply*** (%)	0.0	1	1	0.5
		21	***Physical and Chemical Water Quality Compliance*** (%) *Water Quality Compliance on basis of*	94	5	5	100
		22	***Microbiological (E. coli) Water Quality Compliance*** (%) *1996 NHMRC/ARMCANZ Guidelines*	100	1	1	100
		23	***Category 1 Public Health incidents - Minor*** (per 1000 properties)	0	1	1	0
		24	***Category 2 Public Health incidents - Limited Effects*** (per 1000 properties)	0.0	1	1	0.0
		25	***Category 3 Public Health incidents - Major*** (per 1000 properties)	0.00	1	1	0.00
		26	***Capital Investment on Improving Public Health Performance*** ($ per property)	1	4	4	3
	Levels of Service	27	***Water Quality Complaints*** (per 1000 properties)	1	2	2	5
		28	***Water Service Complaints*** (per 1000 properties)	5	2	2	9
		29	***Customer Interruption Frequency*** (per 1000 properties)	90	5	5	45
		29a	***Average Duration of Interruption*** (hr)	3	4	4	2
		30	***Average customer outage time*** (min)	18	5	5	6
		31	***Number of Main breaks*** (per 100km)	12	3	3	11
		32	***Drought Water Restrictions*** (% of time)	0.6	1	2	43
		33	***Total Days Lost*** (%)	3.4	5	5	2.5
ENVIRONMENTAL	Natural Resource Management	34	***Average Annual Residential Consumption*** (kL/property, potable)	354	5	4	215
		35	***Water Losses*** (including leakage) (%)	12		4	10
		36	***Energy Consumption*** (kWh/ML)	1		1	530
		38	***Renewable Energy Consumption*** (kWh/property)	0		1	0
		40	***Category 1 Environmental incidents - Minor*** (per 1000 properties)	0	1	1	0
		41	***Category 2 Environmental incidents - Limited Effects*** (per 1000 properties)	0.0	1	1	0.0
		42	***Category 3 Environmental incidents - Major*** (per 1000 properties)	0.00	1	1	0.00
		43	***Capital Investment on Improving Environmental Performance*** ($ per property)	19	1	1	2
ECONOMIC	Financial	44	***Residential Revenue from Usage Charges*** (% of residential bills)	76	1	1	55
		45	***Non-residential Revenue from Usage Charges*** (% of non-residential bills)	90		1	73
		47	***Economic Real Rate of Return*** (%)	3.9	1	1	2.7
		47a	***Return on Assets*** (%)	4.0		1	2.9
		48	***Debt to Equity*** (%)	5.0	1	2	1
		49	***Interest Cover*** (%)	606		3	1,300
		49a	***Loan Payment*** ($/property)	50		2	22
	Efficiency	50	***Operating Cost (OMA) per 100km of main*** ($'000)	419	1	1	880
		51	***Operating Cost (OMA) per property [6]*** ($/property)	212	2	1	255
		52	***Operating Cost (OMA) per kL*** (c/kL)	36	1	1	73
		53	***Management Cost*** ($/property)	61	1	2	100
		54	***Treatment Cost*** ($/property)	17	1	1	27
		55	***Pumping Cost*** ($/property)	68	5	4	20
		56	***Energy Cost*** ($/property)	39		5	15
		57	***Water Main Cost*** ($/property)	22	1	1	43

Notes:

1 *Ranking for LWUs with (>10,000) connected properties is based on dividing the results for LWUs in this group into 5 equal divisions of 20%:*
ie. a ranking of 1 indicates the LWU is in the top 20% of LWUs; a ranking of 5 indicates the LWU is in the bottom 20% of LWUs. (Relevant for comparison with LWUs of similar size).

2 *Ranking (1 to 5) for all LWUs is on a percentage of LWUs basis. (Relevant for comparing performance with all other LWUs).*

3 *The Statewide Median is on a percentage of connected properties basis (Tables 1 & 3 of 2003/04 NSW Water Supply and Sewerage Benchmarking Report) as this is the most appropriate for statewide comparisons.*

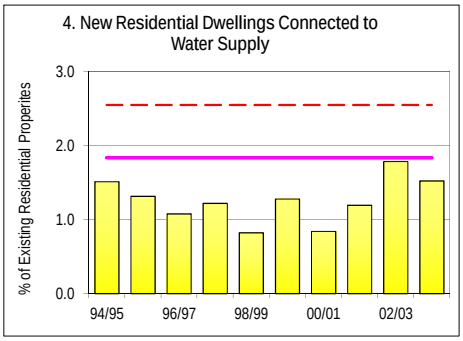
4 *Annual review of the key projections and actions in LWU's SBP are required, together with annual updating of LWU's financial plan. The Business Plan should be updated after 3 years.*

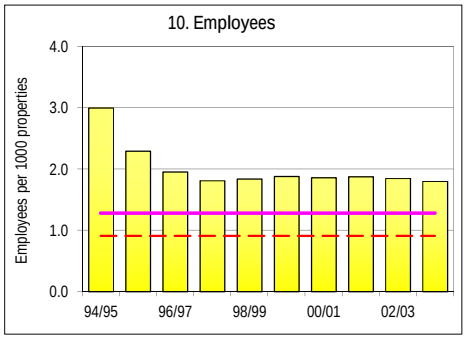
5 *Non-residential Tariff: Uniform Access Charge ($120); Declining Block ; For usage Up to 36,000 kL = 65 c/kL; for usage >36,000 kL = 56 c/kL.*
Water consumption by non-residential customers was 39% of potable water consumption excluding unaccounted-for-water.
2003/04 revenue from non-residential customers was 28% of annual rates and charges.This indicates a large cross-subsidy to non-residential customers and failure to comply with best practice pricing.

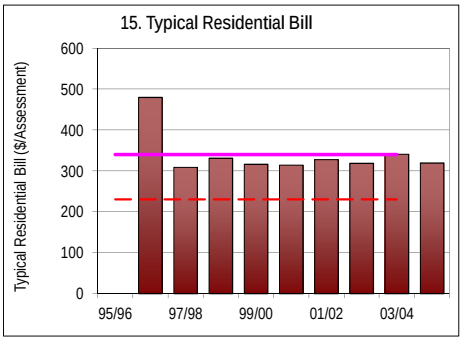
6 *The operating cost (OMA)/property was $212.The components of operating cost/property were: management ($61), operation ($36), maintenance ($57), energy ($39) and chemical ($17).*

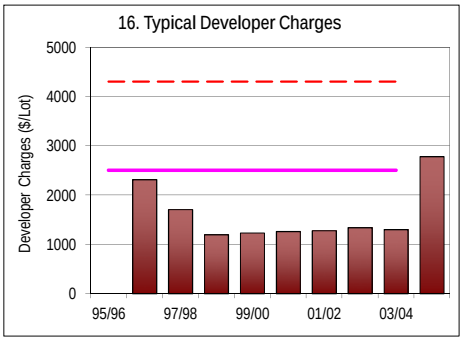
7 *70% of the supply is a good quality unfiltered groundwater supply and 30% is fully treated river flows.*

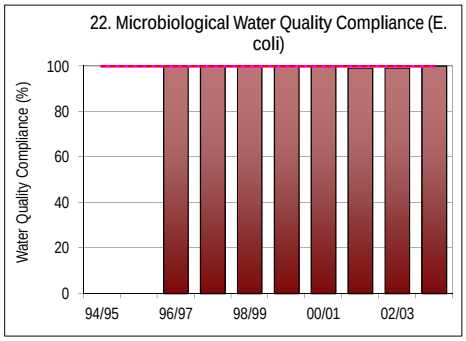
(Results shown for 10 years together with 2003/04 Statewide Median and Top 20%)

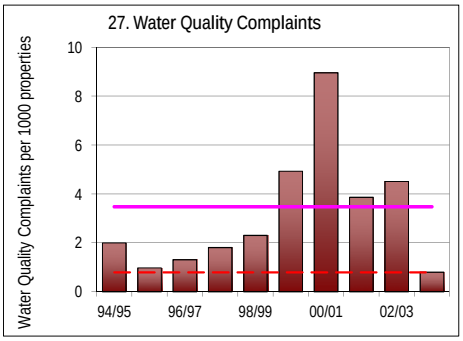


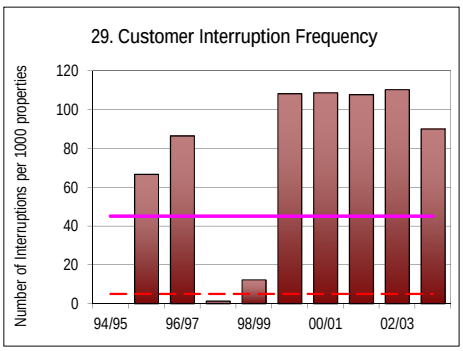


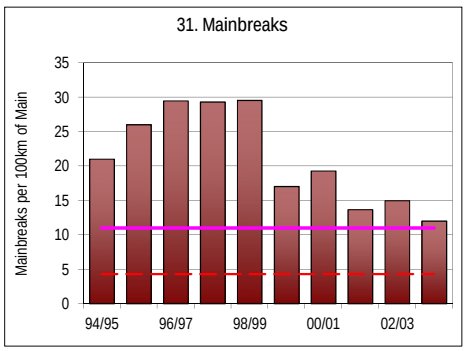


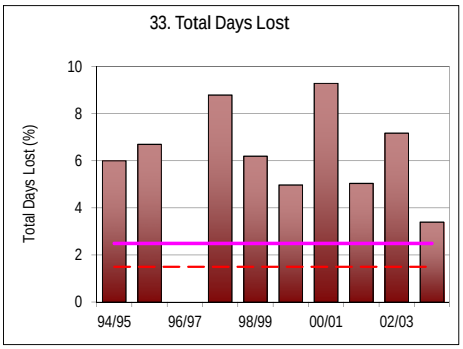


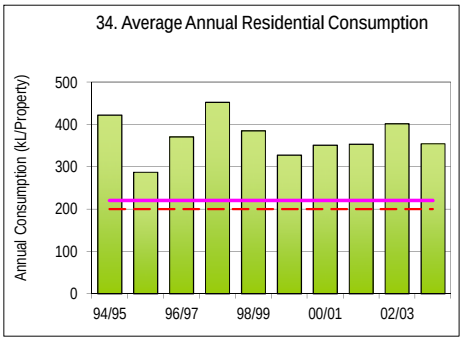


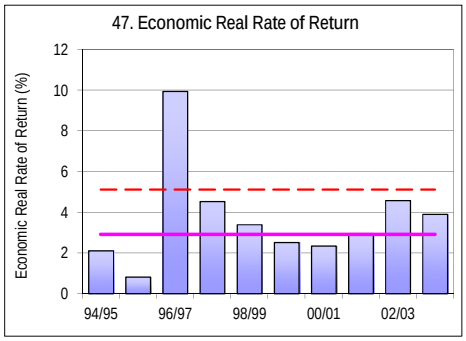


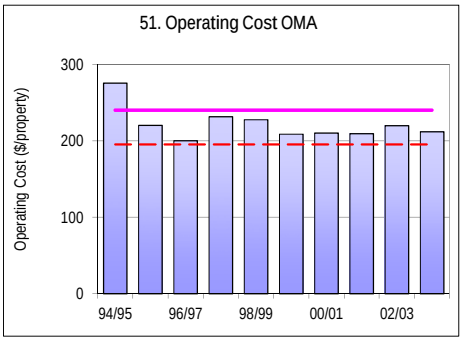


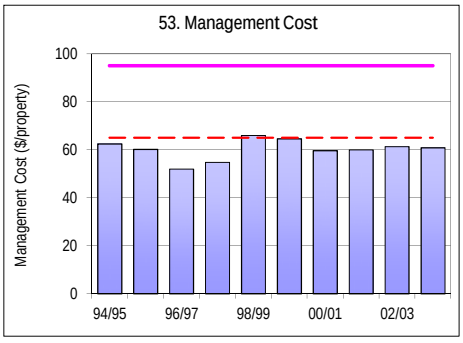


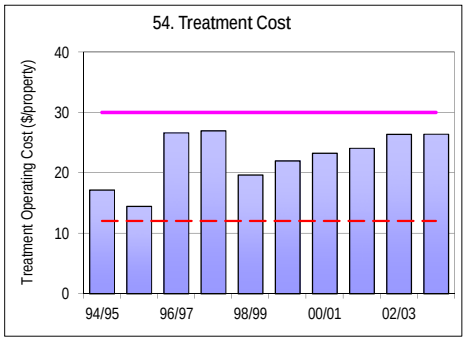


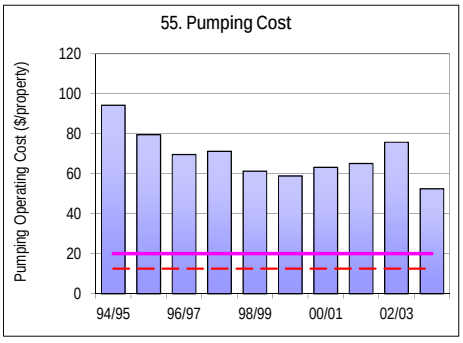












Notes:

1 *Costs are in Jan 2004$.*

2 *Microbiological water quality compliance for 1998/99 to 2003/04 was on the basis of E.coli in the 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines.*
Compliance prior to 1998/99 was on the basis of the 1987 NHMRC/AWRC Guidelines.

LEGEND
2003/04 State Median
2003/04 Top 20%

Wagga Wagga City Council — TBL Sewerage Performance — 2003/04

The area sewered is 4,075 ha serving Wagga Wagga, Forest Hill, Uranquinty and Tarcutta. Council has 5 sewage treatment works with 97% receiving up to tertiary treatment and 3% receiving up to secondary treatment. The system comprises 90,000 EP treatment capacity (comprising 2 trickling filters (EA/AS), 2 oxidation ponds and 1 aerated lagoon/Intermittent extended aireation (activated sludge)), 36 pumping stations (21 ML/d), 63 km of rising mains, 538 km of reticulation, and 3 land and 2 combination land/river discharges. The total number of sampling days at the treatment works was 31. There was 1 day of major malfunction of the treatment processes. Peak wet weather flow was 572 L/s and average dry weather flow was 202 L/s. The current replacement cost of system assets was $166M ($7,800/assessment), cash and investments were $13.8M, debt was $0.5M and turnover was $10.7M (excluding capital works grants).

Business Planning

Strategic Business Plan (SBP)	*Year Prepared*	-	*Year Updated:*	-	*Is Further Development Required[4] ?*	YES
Financial Sustainability of Business	*Demonstrated?*		*Year Updated:*	-	*Is Further Development Required[4] ?*	YES

Triple Bottom Line (TBL) Performance Indicators

					LWU Result	Ranking[1] (>10,000 Properties)	Ranking[2] (All LWUs)	Statewide Median[3]
UTILITY CHARACTERISTICS		1	***Population Served:***	53,900 (1.04 connected properties per assessment)				
		2	***Number of Assessments*** :	21,200 ***Number of Connected Properties:*** 22,100				
		3	***Residential Assessments*** (% of total)		93		5	93
		4	***New Residential Dwellings Connected to Sewerage*** (%)		2.3	1	2	1.7
		5	***Properties Served per km of Main***		41		1	39
		6	***Volume of Sewage Collected*** (ML)		6,320		1	4,300
		7	***Renewals Expenditure*** (% of current replacement cost of system assets)				1	0.0
		8	***Employees*** (per 1000 properties)			1	1	1.5
		9	***Employees Undergoing 2 or more Days of Training*** (%)					
SOCIAL	Charges/Bills	10	***Description of Residential[5] Tariff Structure:***	Access Charge/property; Independent of Land Value				
		11	***Residential Access Charge 2003/04[5]*** ($/assessment)		279		2	355
		12	***Typical Residential Bill 2003/04*** ($/assessment)		279	1	2	373
		13	***Typical Developer Charge 2003/04*** ($/equivalent tenement)		1,450		4	2,870
		14	***Average Residential Bill 2002/03*** ($/connected property)		243		1	346
	Health	16	***Urban Properties without Reticulated Sewerage Service*** (%)			2	1	0.5
		17	***Category 1 Public Health Incidents - Minor*** (per 1000 properties)		0.0		1	0
		18	***Category 2 Public Health Incidents - Limited Effects*** (per 1000 properties)		0.0		1	0.0
		19	***Category 3 Public Health Incidents - Major*** (per 1000 properties)		0.0			0.0
		20	***Capital Expenditure on Improving Public Health*** ($/property)		101.0		1	3
	Levels of Service	21	***Odour Complaints*** (per 1000 properties)		0.0	3	3	0.4
		22	***Service Complaints*** (per 1000 properties)		85		5	13
		23	***Customer Interruption Frequency*** (per 1000 properties)		72		5	1
		23a	***Average Duration of Interruption*** (hr)		1		3	2
		24	***Average Customer Outage Time*** (min)		5		5	2
		25	***Total Days Lost*** (%)			2	3	2.9
ENVIRONMENTAL	Natural Resource Management	26	***Volume of Sewage Treated per property*** (kL/a)		286		4	236
		27	***Reclaimed Water*** (% of effluent reclaimed)		17	1	3	10
		28	***Biosolids Reuse*** (%)		100		1	100
		30	***Energy Consumption*** (kWh/ML)		351		3	640
		32	***Renewable Energy Consumption*** (kWh/property)					0
		33	***90 Percentile Licence Limits for Effluent Discharge:*** *BOD 20 mg/L; SS 30 mg/L; Total N 40 mg/L; Total P 10 mg/L*					
		34	***Compliance with BOD in Licence*** (%)		100	1	1	100
		35	***Compliance with SS in Licence*** (%)		90	1	4	98
		36	***Sewer Main Chokes and Collapses*** (per 100 km of main)		94	5	5	41
		37	***Sewer Overflows to the Environment*** (per 100 km of main)		4	3	4	7
		39	***Category 1 Environmental Incidents - Minor*** (per 1000 properties)		23.0		5	2
		40	***Category 2 Environmental Incidents - Limited Effects*** (per 1000 properties)		1		4	0.1
		41	***Category 3 Environmental Incidents - Major*** (per 1000 properties)		0.0		1	0.00
		42	***Capital Investment on Improving Environmental Performance*** ($/property)		81		2	25
ECONOMIC	Financial	43	***Revenue from Non-residential plus Trade Waste Charges*** (% of total)				5	75
		44	***Revenue from Trade Waste Charges*** (% of total)				1	0.4
		46	***Economic Real Rate of Return*** (%)		6.3	1	1	1.9
		46a	***Return on Assets*** (%)		11.3			1.5
		47	***Debt to Equity*** (%)		0.0		3	3.0
		48	***Interest Cover*** (%)		>1000		1	550
		48a	***Loan Payment*** ($/property)					70
	Efficiency	49	***Operating Cost (OMA) per 100 km of Main*** ($'000/100km)		621	1	2	1130
		50	***Operating Cost* (OMA) per property** ($/property)		151	1	1	262
		51	***Operating Cost* (OMA) per kL** (c/kL)		53	1	1	109
		52	***Management Cost*** ($/property)		30	1	1	97
		53	***Treatment Cost*** ($/property)		49	1	2	81
		54	***Pumping Cost*** ($/property)		21	2	2	38
		55	***Energy Cost*** ($/property)		12		3	15
		56	***Sewer Main Operation & Maintenance Cost*** ($/property)		33	2	3	33

Notes:

1 *Ranking for LWUs with (>10,000) connected properties is based on dividing the results for LWUs in this group into 5 equal divisions of 20% : ie. a ranking of 1 indicates the LWU is in the top 20% of LWUs; a ranking of 5 indicates the LWU is in the bottom 20% of LWUs. (Relevant for comparison with LWUs of a similar size).*

2 *Ranking (1 to 5) for all LWUs is on a percentage of LWUs basis . (Relevant for comparing performance with all other LWUs).*

3 *The Statewide Median is on a percentage of connected properties basis (see Tables 2 and 3 of the 2003/04 NSW Water Supply and Sewerage Benchmarking Report) as this is the most appropriate for statewide comparisons.*

4 *Annual review of the key projections and actions in LWU's Business Plan are required, together with annual updating of LWU's Financial Plan. The business plan should be updated after 3 years.*

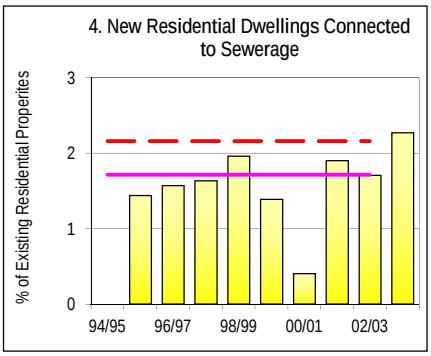
5 *Non-residential: Access Charge - Includes first 4 pan equivalent fixtures. Additional $67.50/equivalent fixture. Minimum Charge($559). no usage charge.*

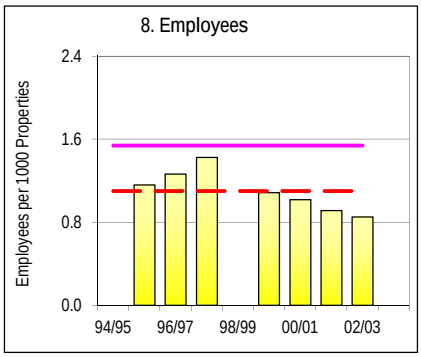
6 *Trade waste waste volume was 32% of total sewage collected; Trade waste and non-residential rates and charges provided 32% of the annual rates and charges revenue, including usage and trade waste charges.*

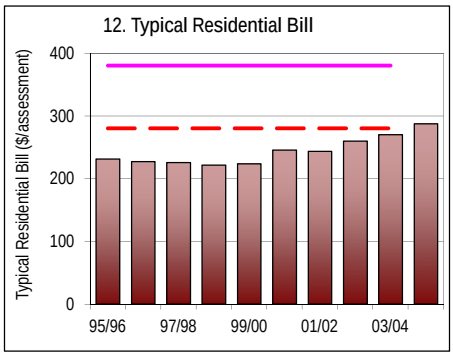
8 *The operating cost (OMA)/property was $151.The components of operating cost/property were: management ($30), operation ($151), energy ($12) and chemical ($13).*

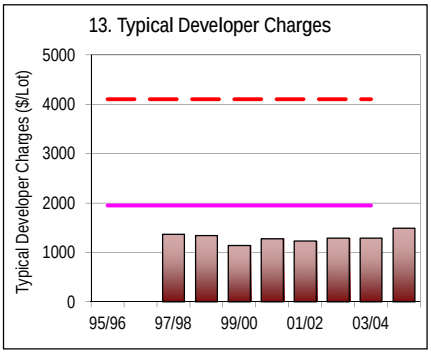
Wagga Wagga City Council — TBL Sewerage Performance (page 2) — 2003/04

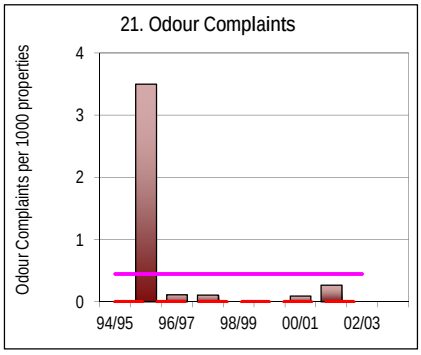
(Results shown for 9 years together with 2003/04 Statewide Median and Top 20%)

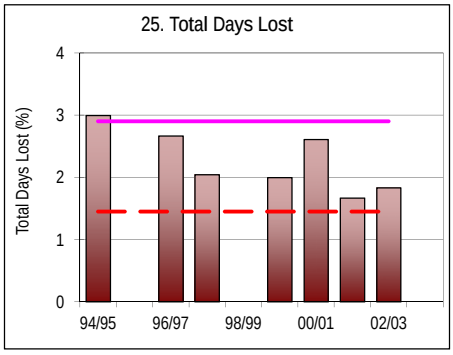


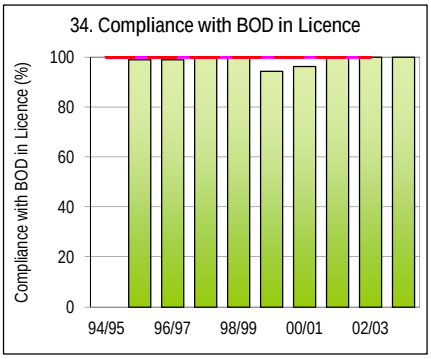


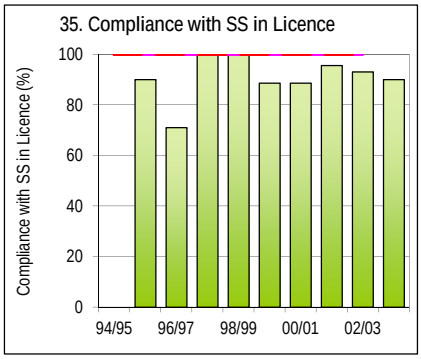


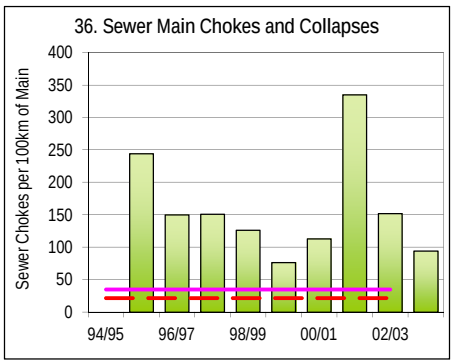


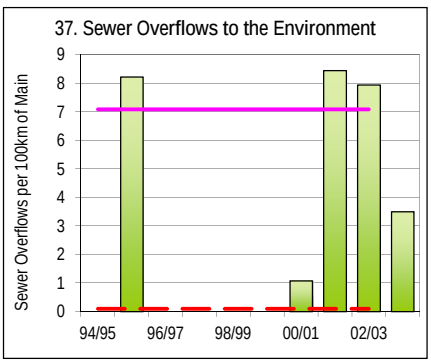


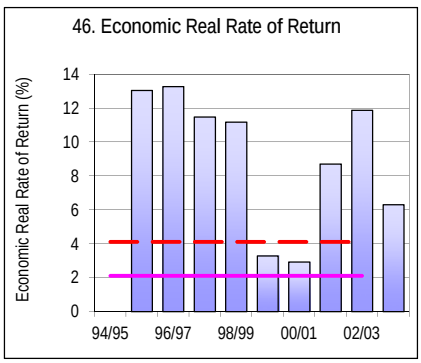


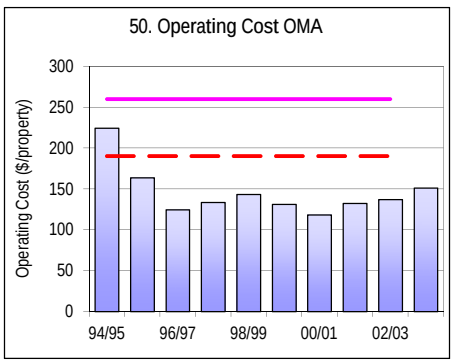


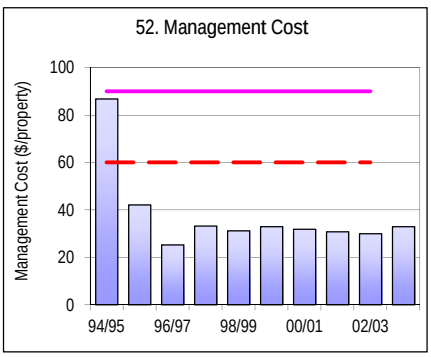


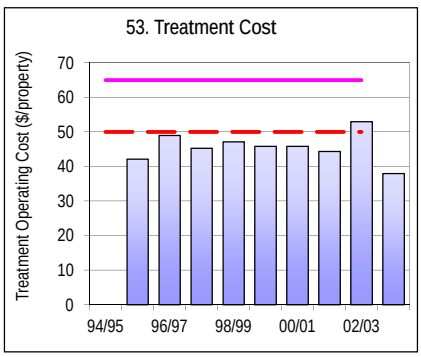


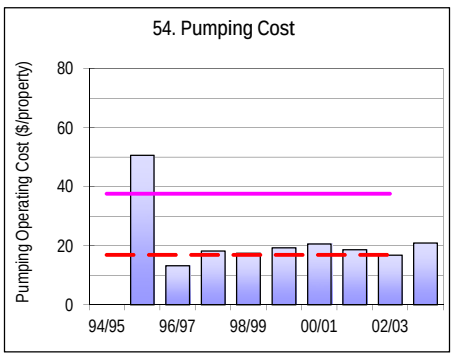












Note: Costs are in Jan 2004$.

LEGEND

2003/04 State Median

2003/04 Top 20%

2003/04 Water Supply Performance Percentiles (% of LWUs Basis)

	20%	40%	Median (50%)	60%	80%
UTILITY CHARACTERISTICS					
Residential Assesments (% of total)	95	95	96	96	96
New Residential Dwellings Connected to Water Supply (%)	2.3	1.5	1.2	0.8	0.4
Properties Served per km of Main	35	28	26	22	16
Rainfall (% of average annual rainfall)	70	80	85	90	100
Total Water Supplied (at Master Meters - ML)	4430	2160	1660	1350	430
Peak Week to Average Consumption (%)	130	155	170	180	200
Renewals Expenditure (% of current replacement cost of system assets)	0.4	0.0	0.0	0.0	0.0
Employees (per 1000 properties)	1.1	1.5	1.7	1.9	2.6
SOCIAL - Charges/Bills					
Residential Water Usage Charge (c/kL)	100	75	70	60	50
Annual Water Allowance (kL/assessment)	0	0	0	0	0
Residential Access Charge ($/assessment)	140	200	230	260	340
Typical Residential Bill ($/assessment)	310	370	400	425	520
Typical Developer Charge($/equivalent tenement)	3700	2500	2200	1800	900
Average Residential Bill ($/per connected property)	330	385	415	445	520
Bill for Residential Customer using 200 kL/a ($/assessment)	270	350	355	390	460
SOCIAL - Health					
Urban Population without Reticulated Public Water Supply (%)	0.0	1.7	3.1	5.4	10
Physical and Chemical Water Quality Compliance (%)	100	100	100	99	96
Microbiological (E. coli) Water Quality Compliance (%)	100	100	100	100	100
Category 1 Public Health Incidents - Minor (per 1000 properties)	0	0	0	0	0
Category 2 Public Health Incidents - Limited Effects (per 1000 properties)	0.0	0.0	0.0	0.0	0.0
Category 3 Public Health Incidents - Major (per 1000 properties)	0.0	0.0	0.0	0.0	0.0
Capital Investment on Improving Public Health Performance ($/property)	16	0	0	0	0
SOCIAL - Levels of Service					
Water Quality Complaints (per 1000 properties)	1	2	3	4	10
Service Complaints (per 1000 properties)	3	6	8	14	36
Customer Interruption Frequency (per 1000 properties)	2	11	15	29	70
Average Duration of Interruption (hr)	2	2	2	2	3
Average Customer Outage Time (min)	0	1	2	4	9
Number of Main Breaks (per 100 km of main)	0	5	9	11	14
Drought Water Restrictions (% of time)	0	0	0	25	85
Total Days Lost (%)	0.0	0.6	1.8	2.3	2.7
ENVIRONMENTAL					
Average Annual Residential Consumption (kL/property)	190	225	265	295	450
Water Losses (including leakage %)	10	10	10	10	16
Energy Consumption (kWh/ML)	80	420	510	590	760
Renewable Energy Consumption ($/property)	0	0	0	0	0
Category 1 Environmental Incidents - Minor (per 1000 properties)	0	0	0	0	0
Category 2 Environmental Incidents - Limited Effects (per 1000 properties)	0.0	0.0	0.0	0.0	0.0
Category 3 Environmental Incidents - Major (per 1000 properties)	0.0	0.0	0.0	0.0	0.0
Capital Investment on Improving Environmental Performance ($/property)	5	0	0	0	0
ECONOMIC - Financial					
Residential Revenue from Usage Charges (% of residential bills)	50	45	45	35	20
Non-residential Revenue from Usage Charges (% of non-residential bills)	85	65	60	55	35
Economic Real Rate of Return (%)	3.9	2.1	1.6	1.0	-0.5
Return on Assets (%)	3.8	2.4	1.8	1.1	0.1
Debt to Equity (%)	8	2	1	0	0
Interest Cover (%)	>1000	1370	770	410	20
Loan Payment ($/property)	95	25	15	10	0
ECONOMIC - Efficiency					
Operating Cost (OMA) per 100 km of Main ($'000)	480	610	740	810	1050
Operating Cost (OMA) ($/property)	225	275	300	330	390
Operating Cost (OMA) (c/kL)	37	56	55	78	92
Management Cost ($/property)	65	85	95	105	130
Treatment Cost ($/property)	25	50	70	95	125
Pumping Cost ($/property)	20	30	40	45	75
Energy Cost ($/property)	9	15	20	26	40
Water Main Cost ($/property)	35	50	55	60	85

Notes:

1. ***20%*** ***top 20% of LWUs***
   Median (50%) median of LWUs
   80% bottom 20% of LWUs

2. The above performance indicators are on a ***percentage of LWUs*** basis as this is the most appropriate basis for comparing the performance of one LWU with other LWUs (throughout the rest of the report the ***percentage of connected properties*** is used as this is the most appropriate for judging Statewide performance by giving due weight to larger LWUs and reducing the effect of smaller LWUs).

2003/04 Sewerage Performance Percentiles (% of LWUs Basis)

	20%	40%	Median (50%)	60%	80%
UTILITY CHARACTERISTICS					
Residential Assessments (% of total)	87	89	90	91	93
New Residential Dwellings Connected to Sewerage (%)	2.3	1.3	1.1	0.7	0.4
Properties Served per km of Main	45	40	35	35	30
Volume of Sewage Collected (ML)	2400	750	470	270	160
Renewals Expenditure (% of current cost of system assets)	0.1	0.0	0.0	0.0	0.0
Employees (per 1000 properties)	1.1	1.5	1.7	1.8	2.4
SOCIAL - Charges/Bills					
Residential Access Charge 2001/02 ($/assessment)	265	325	355	370	440
Typical Residential Bill 2001/02 ($/assessment)	275	325	355	370	450
Typical Developer Charge 2001/02 ($/equivalent tenement)	4100	2500	2000	1700	800
Average Residential Bill ($/connected property)	270	325	365	395	440
SOCIAL - Health					
Urban Population without Reticulated Sewerage (%)	2.2	6	8	11	18
Category 1 Public Health Incidents - Minor (per 1000 properties)	0.0	0.0	0.0	0.0	0.0
Category 2 Public Health Incidents - Limited Effects (per 1000 properties)	0.0	0.0	0.0	0.0	0.0
Category 3 Public Health Incidents - Major (per 1000 properties)	0.00	0.00	0.00	0.00	0.00
Capital Expenditure on Improving Public Health Performance ($/property)	28	0	0	0	0
SOCIAL - Levels of Service					
Odour Complaints (per 1000 properties)	0.0	0.0	0.0	0.3	1.4
Service Complaints (per 1000 properties)	7	15	20	27	47
Customer Interruption Frequency (per 1000 properties)	2	6	12	16	42
Average Duration of Interruption (hr)	1	2	2	2	3
Average Customer Outage Time (hr)	0	1	1	1	4
Total Days Lost (%)	0.3	0.6	1.2	1.4	4.2
ENVIRONMENTAL					
Volume of Sewage Treated per property (kL/a)	170	215	225	240	290
Reclaimed Water (% of effluent reclaimed)	89	44	30	23	8
Biosolids Reuse (%)	100	100	100	100	58
Energy Consumption (kWh/ML)	270	420	510	500	800
Renewable Energy Consumption (kWh/property)	0	0	0	0	0
Compliance with BOD in Licence (%)	100	100	100	100	96
Compliance with SS in Licence (%)	100	100	96	92	77
Sewer Main Chokes and Collapses (per 100 km of main)	14	28	39	51	90
Sewer Overflows to the Environment (per 100 km of main)	7	23	52	0	0
Category 1 Environmental Incidents - Minor (per 1000 properties)	0	0	0	1	3
Category 2 Environmental Incidents - Limited Effects (per 1000 properties)	0	0	0	0	5
Category 3 Environmental Incidents - Major (per 1000 properties)	0.0	0.0	0.0	0.0	0.0
Capital Investment on Improving Environmental Performance ($/property)	68	25	10	3	0
ECONOMIC - Financial					
Revenue from Access Charges (% of total)	90	83	79	76	65
Revenue from Trade Waste Charges (% of total)	1	0	0	0	0
Economic Real Rate of Return (%)	4.3	1.7	0.8	0.2	-1.8
Return on Assets (%)	3.4	1.6	1.2	0.2	-1.2
Debt to Equity (%)	11	3	1	0	0
Interest Cover (%)	2160	680	440	300	-130
Loan Payment ($/property)	108	32	18	7	0
ECONOMIC - Efficiency					
Operating Cost (OMA) per 100 km of Main ($'000)	1165	930	700	715	495
Operating Cost (OMA) ($/property)	180	230	250	270	320
Operating Cost (OMA) (c/kL)	70	85	110	115	165
Management Cost ($/property)	45	60	85	90	105
Treatment Cost ($/property)	50	80	90	95	125
Pumping Cost ($/property)	10	30	35	40	60
Energy Cost ($/property)	10	13	15	16	20
Sewer Main Cost ($/property)	20	20	30	35	45

Notes:

1. ***20%*** ***top 20% of LWUs***
   Median (50%) median of LWUs
   80% bottom 20% of LWUs

2. The above performance indicators are on a ***percentage of LWUs*** basis as this is the most appropriate basis for comparing the performance of one LWU with other LWUs (throughout the rest of the report the ***percentage of connected properties*** is used as this is the most appropriate for judging Statewide performance by giving due weight to larger LWUs and reducing the effect of smaller LWUs).

APPENDIX D1

2003/04 WATER TREATMENT PERFORMANCE

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Appendix D1 - 2003/04 Water Treatment Data

Notes:

1. Where a water utility has more than one water treatment works, the reported compliance values have been pro-rated on the basis of the number of samples tested at each treatment works and are shown in bold in the final line for that water utility. Totals are shown for capacity (37B), treated volume (38B), and number of samples (eg. 42B). The days of chlorination system failure (44), and days of major malfunction of treatment processes (45) shown are the weighted average based on treatment works capacity.
2. For "Type of Treatment Works"; A = Aerated and Disinfected, C = Conventional Water Treatment, CH = Chlorination Only, D = Direct Filtration, DAF = Dissolved Air Flotation, L = Lagoon Sedimentation, M = Microfiltration, OZ = Ozonation, UV = Ultra-Violet Disinfection.
3. For water quality complaints, the weighted average values shown are on the basis of the total water complaints divided by the number of connected properties.

	Water Utility	Comment	Water Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Type of Treatment Works[2]	Volume Treated	Colour Units				Turbidity Units				Percentage Test Compliance With 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines												Water Quality Complaints[3]	Chemical Monitoring Compliance	Total Coliforms Monitoring Compliance	Chlorination System Failure	Major Malfunction of Treatment Processes
									Raw Water		Treated Water		Raw Water		Treated Water		Physical		Chemical		Turbidity		pH		Colour		E. coli		Total Coliforms						
			37a			ML/d 37b	38a	ML 38b	Max 39a	Avg 39b	Max 39c	Avg 39d	Max 40a	Avg 40b	Max 40c	Avg 40d	% 42a	Samples 42b	% 42c	Samples 42d	% 42e	Samples 42f	% 42g	Samples 42h	% 42i	Samples 42j	% 42k	Samples 42l	% 42m	Samples 42n	per 1,000 properties	% 44o	% 44p	days 44	days 45
1	Albury		Albury	1	1991	140	D	10,172	281	50	3	0	41	8	2	0.7	100	206	99	3,481	100	331	96	346	100	326	100	465	99	465	0	100	100	0	0
2	Armidale Dumaresq		Armidale Dumaresq	1	1988	42	C	3,194	51	32	3	1	2	1	0	0.2	100	365	100	248	100	365	100	365	100	365	98	111	92	111	25	100	100	0	0
3	Ballina (Reticulator)	***Bulk Supply from Rous***	Marom Creek	1	1977	3	D	131							0	0			95	41	100	2	0	2			100	843	88	847	0	100	98	0	0
			Euston	1	1988	1.5	C	350							10	10			95	20	0	1	100	1			100	22	81	22	7	50	85		
			Balranald	2	1988	1.1	C	212	100	20	5	0	60	8	4	1	100	2	100	41	100	2	100	2			100	52	94	51	9	100	98	0	0
4	Balranald (Dual Supply)		***Total/Weighted Average***			**2.6**	C	**562**	**100**	**20**	**5**	**0**	**60**	**8**	**7**	**6**	**100**	**2**	**98**	**61**	**67**	**3**	**100**	**3**			**100**	**74**	**90**	**73**	**7**	**75**	**92**	**0**	**0**
5	Barraba		Barraba	1	1995	3.9	DAF	141	400	35	1	1	155	10	0	0.2	100	4	96	57	100	2	100	2	100	2	98	57	79	57	9			0	0
6	Bathurst		Bathurst	1	1998	54	C	6,809	550	35	12	4	500	10	11	1.0	100	975	99	310	100	975	99	975	100	975	99	164	87	164	10	100	100	0	0
			Yellow Pinch Chlorinator	1		25	CH	760		8		4		3	2	2			100	248	100	12	100	12			100	141	97	141		100	100	0	
			Bega Chlorinator	2		16	CH	1,185		5		3		1	1	1			100	248	100	12	100	12			100	93	100	98		100	100	0	
			Brogo Chlorinator	3		6	CH	491	77	20	67	6	3	2	3	1											100	40	95	40			100	0	
			Kiah Chlorinator	4		6	CH	1,148		5		3		1	1	1			100	248	100	12	100	12			100	50	100	50		100	96	0	
			Bemboka Chlorinator	5		1.0	CH	47		30		15		5		4											100	28	92	28			100	0	
			Tilba Chlorinator	6		1	CH	16		10		6		2		2																	0	0
7	Bega Valley (Unfiltered)		***Total/Weighted Average***			**55.0**		**3,646**	**77**	**8**	**67**	**3**	**3**	**1**	**3**	**1**			**100**	**744**	**100**	**36**	**100**	**36**			**100**	**352**	**100**	**357**		**33**	**100**	**0**	**0**
			Bellingen	1	1993	12	CH	1,272							2	0.6	100	3	100	226	100	11	100	11	100	3	100	87	96	87	5	92	93	0	0
			Dorrigo	2	1993	2.7	L	205		45		3		4	1	0.5	100	4	97	41	100	260	100	260	100	260	100	80	100	80		100	92	0	2
8	Bellingen (Unfiltered)		***Total/Weighted Average***			**14.7**		**1,477**	**0**	**45**	**0**	**3**	**0**	**4**	**2**	**1**	**100**	**7**	**100**	**267**	**100**	**271**	**100**	**271**	**100**	**263**	**100**	**167**	**98**	**167**	**4**	**96**	**93**	**0**	**0**
			Tocumwal	1	1990	7	DAF	675	50	20	5	5	100	25	8	0.3	100	365	97	41	100	365	100	365	100	365	98	52	98	52	2	92	100	1	0
			Finley	2	1997	2	DAF	244	40	20	5	5	50	18	1	0.6	100	365	98	50	100	365	100	365	100	365	100	52	100	52	6	92	92	0	0
			Barooga	3	1983	1	DAF	129	70	20	5	5	90	20	1	0.3	100	365	100	41	100	365	100	365	100	365	100	52	98	52	0	100	92	0	0
			Berrigan	4	1999	1	DAF	119	40	15	5	5	50	20	1	0.4	100	365	100	50	100	365	100	365	100	365	100	52	100	52	8	92	92		
9	Berrigan (Dual Supply)		***Total/Weighted Average***			**11.0**		**1,167**	**49**	**19**	**5**	**5**	**83**	**22**	**5**	**0**	**100**	**1,460**	**99**	**182**	**100**	**1,460**	**100**	**1,460**	**100**	**1,460**	**100**	**208**	**99**	**208**	**3**	**94**	**94**	**1**	**0**
10	Bingara		Bingara	1			CH	363													50	59	100	59	100	59	88	59	28	59	21			5	0
11	Bland	**NO WS**																																
12	Blayney	**NO WS**																																
13	Bogan		Bogan	1		8.6	C	921	20	20	5	**5**	21	11	2	1			100	30	100	1	100	1			97	42	52	42		83	81		
			Bombala	1	1983	3.2	C	290							0.3	0.3	100		100	74	100	1	100	1			96	51	80	51	5	100	96	0	0
			Delegate	2		1.3	CH	110									100		100	22	0	0	0	0			100	26	65	26	0		96	0	0
14	Bombala		***Total/Weighted Average***			**4.5**	D	**400**	**0**	**0**	**0**	**0**	**0**	**0**	**0.3**	**0.3**			**100**	**96**	**100**	**1**	**100**	**1**			**97**	**77**	**75**	**77**	**3**	**54**	**96**	**0**	**0**
15	Boorowa		Boorowa	1	1993	3	L								0	0.2			100	23	100	1	100	2			93	31	54	31	0	50	60	0	
16	Bourke (Dual Supply)		Bourke	1	1988	3.3	C	616			4	3			37	7.9	76	51	93	501	52	17	76	17	100	17	98	50	72	50	8	100	90		
			Brewarrina	1	1990	0.8	C	265	50	37	5	5	120	82	8	5	100	3	97	41	100	3	100	3	100	3	100	9	66	9		100	17		
			Goodooga	2		0.5	A	100	1	1	1	1	0.2	0.2	0.2	0.2	0	2	93	43	100	2	0	2	100	2	100	10	90	10		100	38	0	0
17	Brewarrina		***Total/Weighted Average***			**1.3**	C	**365**	**37**	**27**	**4**	**4**	**87**	**60**	**6**	**3.3**	**60**	**5**	**95**	**84**	**100**	**5**	**60**	**5**	**100**	**5**	**100**	**19**	**79**	**19**		**100**	**28**	**0**	**0**
			Mica Street	1	1981	36	C	5,486	43	12	8	1	274	48	2	0	93	459	98	403	99	352	100	352	99	352	100	129	99	129	30	100	100	0	0
			Menindee	2	1997	1.1	C	704	43	12	1	1	270	35	2	0	98	52	100	64	99	260	100	260	100	260	98	52	94	52	7	50	100	0	0
18	Australian Inland		***Total/Weighted Average***			**37.1**		**6,190**	**43**	**12**	**7**	**1**	**274**	**47**	**2**	**0**	**94**	**511**	**98**	**467**	**99**	**612**	**100**	**612**	**99**	**612**	**99**	**181**	**98**	**181**	**30**	**67**	**100**	**0**	**0**
19	Byron (Reticulator)	***Bulk Supply from Rous***	Mullumbimby	1		2.9	C	458	79	32	32	3	64	14	5	0.3	94	52	98	363	98	52	94	52	98	52	99	107	96	108	0	100	100	0	0
		Non-Potable	Molong	1	1986	2.3	D	251			6	3			0.6	0.6	100	2	100	41	100	2	100	2	100	2	100	53	81	53	6	100	100	0	0
		Non-Potable	Cumnock	2		2	CH	67			20	11			10	6.2	50	2	97	41	50	2	100	2	50	2	100	12	66	12	15	100	100	0	0
			Yedual	3		0.8	CH				10	6			3	2	0	2	100	41	100	2	100	2	100	2	100	12	58	12	25	100	100	0	0
20	Cabonne		***Total/Weighted Average***			**5.1**	D	**318**	**0**	**0**	**9**	**5**	**0**	**0**	**3**	**2**	**50**	**6**	**99**	**123**	**83**	**6**	**100**	**6**	**83**	**6**	**100**	**77**	**75**	**77**	**13**	**100**	**100**	**0**	**0**
			Hillston	1		5.6	CH	522							0	0	100	1	100	21	100	1	100	1	100	1	100	50	98	50		50	96	0	0
			Goolgowi / Merriwagga	2			CH	184			1	1			0	0	100	2	95	44	100	2	100	2	100	2	100	26	100	26		100	100		
			Rankins Springs	3			UV		4	4			33	33	33	32.6	100	1	95	21	0	1	100	1	100	1	100	25	68	25		50	96		10
			Carrathool	4			CH	43			1	1			1.1	0.8	100	2	100	42	100	2	100	2	100	2	92	14	85	14		100	100	5	
			Melbergen	5			CH	43			1	1			1.1	0.8	100	2	100	2	100	2	100	2	100	2	93	14	86	14				5	
21	Carrathool (Groundwater)		***Total/Weighted Average***			**5.6**	CH	**792**	**4**	**4**	**1**	**1**	**33**	**33**	**0**	**0**	**100**	**8**	**98**	**130**	**88**	**8**	**100**	**8**	**100**	**8**	**98**	**129**	**90**	**129**	**4**	**75**	**100**	**2**	**2**
			Ivanhoe	1		0.6	C	120					5	4	1	1											100	11	54	11	9		42		
			Wilcannai	2		0.5	C	50																			100	30	80	30	29		56		
			White Cliff	3		0	C	40							1	1.2			100	21	100	1	100	1							11	50		2	5
22	Central Darling		***Total/Weighted Average***			**1.2**		**210**	**0**	**0**	**0**	**0**	**5**	**4**	**1**	**1**			**100**	**21**	**100**	**1**	**100**	**1**			**100**	**41**	**80**	**41**	**18**	**17**	**33**	**2**	**5**
			Carcoar	1		9.0	DAF	1,474	140	15	5	1	150	8	5	1	100	24	100	387	100	365	100	365	100	365	100	154	99	154	10	100	37	0	0
			Blayney	2	1977	6.0	C	513	140	15	5	1	15	8	3	1	100	2	98	51	100	365	100	365	100	365	100	52	99	52	10	67	56	0	0
			Quandialla	3											**1**	**0**			**98**	**50**	**100**	**2**	**100**	**2**			**100**	**9**	**100**	**9**		**100**	**75**		
23	**Central Tablelands**		***Total/Weighted Average***			**15**		**1,987**	**140**	**15**	**5**	**1**	**150**	**8**	**4.5**	**1.0**	**100**	**26**	**100**	**488**	**100**	**732**	**100**	**732**	**100**	**730**	**100**	**215**	**99**	**215**	**10**	**89**	**56**	**0**	**0**

Appendix D1 - 2003/04 Water Treatment Data

Notes:

1. Where a water utility has more than one water treatment works, the reported compliance values have been pro-rated on the basis of the number of samples tested at each treatment works and are shown in bold in the final line for that water utility. Totals are shown for capacity (37B), treated volume (38B), and number of samples (eg. 42B). The days of chlorination system failure (44), and days of major malfunction of treatment processes (45) shown are the weighted average based on treatment works capacity.
2. For "Type of Treatment Works"; A = Aerated and Disinfected, C = Conventional Water Treatment, CH = Chlorination Only, D = Direct Filtration, DAF = Dissolved Air Flotation, L = Lagoon Sedimentation, M = Microfiltration, OZ = Ozonation, UV = Ultra-Violet Disinfection.
3. For water quality complaints, the weighted average values shown are on the basis of the total water complaints divided by the number of connected properties.

Water Utility		Comment	Water Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Type of Treatment Works[2]	Volume Treated	Colour Units				Turbidity Units				Percentage Test Compliance With 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines												Water Quality Complaints[3]	Chemical Monitoring Compliance	Total Coliforms Monitoring Compliance	Chlorination System Failure	Major Malfunction of Treatment Processes
									Raw Water		Treated Water		Raw Water		Treated Water		Physical		Chemical		Turbidity		pH		Colour		E. coli		Total Coliforms						
			37a			ML/d 37b	38a	ML 38b	Max 39a	Avg 39b	Max 39c	Avg 39d	Max 40a	Avg 40b	Max 40c	Avg 40d	% 42a	Samples 42b	% 42c	Samples 42d	% 42e	Samples 42f	% 42g	Samples 42h	% 42i	Samples 42j	% 42k	Samples 42l	% 42m	Samples 42n	per 1,000 properties	% 44o	% 44p	days 44	days 45
		Non-Potable	Cobar	1	**1983**	7	C	1,311	100	40	0	0	6	2	2	1	100	260	100	268	100	260	100	260	100	260	100	104	100	104	0	100	100	0	0
		Non-Potable	Euabalong Village	2			CH	***34***																									
		Non-Potable	Euabalong West	3			CH	***42***																									
		Bulk Supply from Cobar WB		4			CH	3																									
		Non-Potable	Mt. Hope	5			CH	***4***																									
24	**Cobar**		***Total/Weighted Average***			**7**		**1,393**	**100**	**40**	**0**	**0**	**6**	**2**	**2**	**1**	**100**	**260**	**100**	**268**	**100**	**260**	**100**	**260**	**100**	**260**	**100**	**104**	**100**	**104**	**0**	**100**	**100**	**0**	**0**
24-A	Cobar WB			1																													
25	Coffs Harbour (Unfiltered)		Karangi	1		60	CH	5,862			20	11	3	1	2	1	100	12	100	676	100	12	100	12	100	12	100	430	90	430	5	86	100	0	0
			Dunedoo	1		2	CH	250									100	2	100	2	100	2	100	2	100	2	100	50	98	50	0			2	0
			Coolah	2		1	CH	145									100	2	100	2	100	2	100	2	100	2	100	50	100	50	***0***			***0***	***0***
			Mendooran	3		0.3	CH	83									50	2	50	2	50	2	50	2	50	2	40	35	40	35	98			20	20
26	**Coolah**		***Total/Weighted Average***			**3**		**478**							**0**	**0**	**83**	**6**	**83**	**6**	**83**	**6**	**83**	**6**	**83**	**6**	**84**	**135**	**84**	**135**	**9**			**3**	**2**
27	Coolamon	***NO WS***																															
			Cooma	1	**1985**	15	C	1,616	15	31	5	5	70	8	7	1.0			100	248	100	12	100	12	100	11	100	63	93	63	2	100	98	0	0
			Nimmitabel	2			CH	40							1.3	0.9			100	41	100	2	100	2	100	1	100	25	80	25	0	100	96	0	0
			Bredbo	3			CH	47							2	1			100	42	100	2	100	2	100	1	100	26	96	26	0	100	100	0	0
28	**Cooma-Monaro**		***Total/Weighted Average***			**15**	C	**1,703**	**15**	**31**	**5**	**5**	**70**	**8**	**7**	**1**			**100**	**331**	**100**	**16**	**100**	**16**	**100**	**13**	**100**	**114**	**91**	**114**	**2**	**100**	**98**	**0**	**0**
			Coonabarabran	1	**1993**	8	L	593	130	41	3	0	45	13	2	0.4	100	365	100	365	100	365	100	365	100	365					0			0	0
			Binnaway	2	**1993**	1	L	146	50	15	3	0	21	11	1	0	100	365	100	365	100	365	100	365	100	365					0			0	0
			Baradine	3	**1993**	1.0	L	220					10	7	1	1	100	365	100	365	100	365	100	365	100	365					5			0	0
29	**Coonabarabran**		***Total/Weighted Average***			**9.8**		**959**	**130**	**41**	**3**	**0**	**33**	**11**	**1**	**0**	**100**	**1,095**	**100**	**1,095**	**100**	**1,095**	**100**	**1,095**	**100**	**1,095**					**1**			**0**	**0**
		Good Quality Untreated	Coonamble	1			CH	1,564							105	35	67	3	96	63	66	3	100	3	67	3	93	30	83	30		100	58	3	
			Gulargambone	2			CH	248							9	5.0	70	3	97	42	50	2	100	2	100	2	90	30	76	30		100	58	5	
			Quambone Village	3			CH	***9***							1	1			100	21	30	6	100	6	50	6	90	10	70	10		50	83		
30	**Coonamble (Groundwat**		***Total/Weighted Average***					**1,821**							**92**	**31.2**	**70**	**6**	**97**	**126**	**43**	**11**	**100**	**11**	**64**	**11**	**91**	**70**	**78**	**70**	**2**	**100**	**66**	**3**	
31	Cootamundra (Reticulator	**Bulk Supply from Goldenfields**						1,004							4	0.8			99	207	100	10	90	10			100	65	92	65		83	100		
32	Copmanhurst (Unfiltered)	***No WS***																															
			Corowa	1		15.0	CH	1,645	75	43	0	0	185	22	3.1	0.7	100	365	98	248	100	365	100	180	100	180	61	136	100	52	4	100	96	0	0
			Mulwala	2	**1944**	13.0	C	1,648					150	21	3	0.5	100	365			100	365	100	365			100	51	100	51	0		98	0	0
33	**Corowa**		***Total/Weighted Average***			**28.0**	C	**3,293**	**75**	**43**	**0**	**0**	**167**	**21**	**3**	**1**	**100**	**730**	**98**	**248**	**100**	**730**	**100**	**545**	**100**	**180**	**72**	**187**	**100**	**103**	**2**	**63**	**100**	**0**	**0**
34	Cowra		Cowra	1	**1987**	28.0	D	2,556					58	3	2	1	94	63	97	347	100	13	92	13	100	11	99	138	79	138	7	100	100	0	0
35	Crookwell		Crookwell	1	**1990**	3.0	C	282	68	50	5	4	4	3	1	0.2	100	365	100	2	100	365	100	365	100	365	100	51	53	51	0			0	0
36	Culcairn (Groundwater)		Culcairn	1		2	A	237	0	0	0	0	0	0	0	0.2	100	4	100	4	100	4	100	85	100	0	100	53	100	53	13			0	1
37	Deniliquin		Deniliquin	1	**1986**	26.0	F	2,467	50	40	5	1	29	21	1.7	0.4	100	12	98	247	100	12	75	12	100	12	100	61	90	61	1	100	92	0	0
38	Dubbo		John Gilbert	1	**1977**	55.0	C	10,254	426	54	30	3	376	23	6	1	100	125	99	125	100	125	93	133	100	125	97	163	87	163	1	50	100	0	0
		Bulk Supply from Hunter Water						349							0	0.2			99	251	100	10	96	31			98	78	88	78		83	95		
		Bulk Supply from Hunter Water						217																									
		Bulk Supply from Hunter Water						110																									
			Gresford	1		**1**	M	50							0	0.3	90	26	98	56		26	100	26		26	98	26	90	26	0	100	92	2	0
39	**Dungog (Reticulator)**		***Total/Weighted Average***			**1**	M	**725**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.3**	**90**	**26**	**99**	**307**	**100**	**36**	**100**	**57**		**26**	**98**	**104**	**90**	**104**	**0**	**92**	**94**	**2**	**0**
40	Eurobodalla (Unfiltered)		Whole Shire	1			CH	4,967	77	18	12	6	61	4	947	23.8	25	562	99	503	74	522	92	25	100	10	100	369	84	369	32	83	93	2	0
41	Fish River WS (Unfiltered		Duckmaloi	1		11.0	M	1,184	15	10	5	2	3	1	5.3	1.9	100	528	98	167	100	528	100	528	100	528	99	176	69	176	0	100	100	0	0
42	Forbes		Forbes	1	**1966**	26	D	2,197	120	30	10	3	28	14	5	1.1	100	18	98	514	100	18	100	18	94	16	100	61	87	100	1	100	94	0	0
43	Gilgandra (Groundwater)		Gilgandra	1	**1984**	6	D	857	3	2	1	0	40	10	2	0.5	100	2	100	5	100	2	100	2	100	2	100	41	95	41	4	42	79	1	1
44	Glen Innes		Glen Innes - Martins Lookout	1	**1982**	12.0	C	704	530	65	9	2	145	8	4	1	100	365	92	12	100	365	100	365	100	365	96	24	96	24	8				
			Gloucester	1	**1981**	3.5	D	527	250	32	5	5	87	5	3	0	100	2	97	44	100	2	50	2	100	2	100	51	92	51	0	42	98	0	0
			Barrington	2		3.5	D	527	250	32	5	5	87	5	3	1	100	2	98	41	100	2	100	2	100	2	85	55	70	55	0	100	100	6	6
45	**Gloucester**		***Total/Weighted Average***			**7.0**	D	**1,055**	**250**	**32**	**5**	**5**	**87**	**5**	**3.0**	**0.6**	**100**	**4**	**97**	**85**	**100**	**4**	**75**	**4**	**100**	**4**	**92**	**106**	**81**	**106**	**0**	**71**	**100**	**3**	**3**
			Jugiong - River Water Source	1	**1991**	40	C	4,357	420	104	15	5	382	39	1	0.4	100	1,464	98	817	100	365	99	366	100	366	100	72	87	72	1	100	92	0	0
			Oura - Bore Water Source	2		26.0	A	4,448							1	0	98	309	98	1,621	100	11	100	11	100	10	100	282	97	282	20	92	100	1	8
			Mount Arthur - Bore Water Source	3		4	CH	404							3	1.5	0	2	92	41	100	2	100	2	100	2	100	70	80	70	37	100	100		
			Mount Daylight - Bore Water Source	4		1	CH	225							0	0.2	100	2	97	42	100	2	100	2	100	2	96	26	80	26	0	100	100		
			Hylands Bridge - Canal Raw Water S	5		**0.8**	CH	**165**																							**0**				
46	**Goldenfields (Bulk Supp**		***Total/Weighted Average***			**72**		**9,599**	**420**	**104**	**15**	**5**	**382**	**39**	**3**	**1**	**100**	**1,777**	**98**	**2,521**	**100**	**380**	**100**	**381**	**100**	**380**	**100**	**450**	**97**	**450**	**10**	**98**	**100**	**0**	**3**
47	Goldenfields (Reticulator)							5,658																										
48	**Goldenfields (Combined**		***Total/Weighted Average***			**72.4**		**9,599**	**420**	**104**	**15**	**5**	**382**	**39**	**0**	**0**	**100**	**1,777**							**100**	**380**					**10**			**1**	**8**
49	Gosford		Somersby	1	**1986**	140.0	C	16,790	800	44	10	10	75	5	1	0	100	300	100	300	100	12	100	300	100	300	100	409	89	409	8	100	100	0	0

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Notes:

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2. For "Type of Treatment Works"; A = Aerated and Disinfected, C = Conventional Water Treatment, CH = Chlorination Only, D = Direct Filtration, DAF = Dissolved Air Flotation, L = Lagoon Sedimentation, M = Microfiltration, OZ = Ozonation, UV = Ultra-Violet Disinfection.
3. For water quality complaints, the weighted average values shown are on the basis of the total water complaints divided by the number of connected properties.

Water Utility		Comment	Water Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Type of Treatment Works[2]	Volume Treated	Colour Units				Turbidity Units				Percentage Test Compliance With 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines												Water Quality Complaints[3]	Chemical Monitoring Compliance	Total Coliforms Monitoring Compliance	Chlorination System Failure	Major Malfunction of Treatment Processes
									Raw Water		Treated Water		Raw Water		Treated Water		Physical		Chemical		Turbidity		pH		Colour		E. coli		Total Coliforms					
									Max	Avg	Max	Avg	Max	Avg	Max	Avg	%	Samples	%	Samples	%	Samples	%	Samples	%	Samples	%	Samples	%	Samples					
		37a				ML/d 37b	38a	ML 38b	39a	39b	39c	39d	40a	40b	40c	40d	42a	42b	42c	42d	42e	42f	42g	42h	42i	42j	42k	42l	42m	42n	per 1,000 properties	% 44o	% 44p	days 44	days 45
50	Goulburn		Goulburn	1	1975	35	C	2,654	128	50	14	5	13	3	2	0.4	100	377	99	400	100	377	100	377	100	377	100	377	94	120	6			0	0
51	Grafton (Unfiltered)	***Bulk Supply from North***	Rushforth Road	1																										2				
			Griffith	1	1987	60	DAF	7,624	150	45	5	3	42	18	2	0.6	100	12	100	251	100	12	100	11	100	12	100	76	94	76	3	92	100	0	0
			Yenda	2	2001	2.5	M	330			5	5	35	18	0	0	100	12	98	52	100	12	0	1	100	12	100	53	100	53	7	100	100	0	0
52	**Griffith**	***Total/Weighted Average***				**62.5**		**7,954**	**150**	**45**	**5**	**3**	**42**	**18**	**2**	**1**	**100**	**24**	**100**	**303**	**100**	**24**	**92**	**12**	**100**	**24**	**100**	**129**	**96**	**129**	**3**	**96**	**100**	**0**	**0**
53	Gundagai		Gundagai	1	1988	5.0	D	602	130	42	10	5	240	13	2	0	100	2	98	50	100	2	50	2	100	2	100	52	100	70	0	83	96	0	0
		Good Quality Untreated	Gunnedah					2,276							5	3			100	41	100	2	100	2			89	37	18	37		17	58		
		Good Quality Untreated	Curlewis					115							0	0.1			100	62	100	3	100	3			75	32	59	32		100	62		
		Good Quality Untreated	Tambar Springs					19							14	4.9			96	62	66	3	100	3			50	8	13	8		100	67		
		Good Quality Untreated	Mullaley					25							1	0			100	63	100	3	100	3			75	8	25	8		100	67		
54	**Gunnedah (Groundwate**		***Total/Weighted Average***					**2,435**							**5**	**3**			**99**	**228**	**91**	**11**	**100**	**11**			**79**	**85**	**34**	**85**	**0**	**100**	**64**		
			Gunning	1			CH	66											100	2							100	28	71	28	0			0	
			Dalton	2		0.1	UV	20											100	2							88	24	71	24	0				
55	**Gunning (Groundwater)**		***Total/Weighted Average***			**0**	CH	**86**											**100**	**4**							**94**	**52**	**71**	**52**	**0**			**0**	
56	Guyra		Guyra	1	1983	6	D	274	350	140	8	3	9	3	1	0.3	100	120	100	120	100	120	100	120	100	120	100	120	51	37	0	50	71	0	0
57	Harden (Reticulator)	***Bulk Supply from Goldenfields***															80	14	100	145	80	14	100	62	70	14	90	70	68	70	21	50	95		
58	Hastings (Unfiltered)		Hastings	1		151.0	CH	6,503									81	1,420	99	18	98	1,420	67	1,418	91	11	100	480	100	480	6			0	
58-A	Hawkesbury	***NO WS***																																
59	Hay (Dual Supply)		Hay		1988	2.1	C	387	70	20	3	2	82	20	0	0	100		98	50	100	2	50	2	100				100	49	0	92	94	0	0
60	Holbrook	***NO WS***																																
			Howlong	1	1989	5.5	D	328	500	50	3	0	60	15	2.0	0.7	100	12	100	12	100	12	100	12	100	12					0			0	0
			Lake Hume	2		1.9	CH	36					3	1	4	4			100	21	100	1	100	1			90	54	64	54			50	92	
		Bulk Supply from Albury	Villages	3			CH	468																										
		Bulk Supply from Albury	Table Top	4			CH	215							1	1			100	21	100	1	100	1			100	47	100	47	0	52	90		
61	**Hume (Unfiltered)**		***Total/Weighted Average***			**7**		**1,047**	**500**	**50**	**3**	**0**	**60**	**15**	**4**	**4**	**100**	**12**	**100**	**54**	**100**	**14**	**100**	**14**	**100**	**12**	**100**	**101**	**100**	**101**	**0**			**0**	**0**
62	Hunter Water	***Metropolitan***						77,042																			0		0		7				
			Copeton	1	1982	18	C	1,945	188	70	9	3	5	205	0.9	0.3	100	360	100	101	99	360	100	360	99	360	100	20	100	20	1	42	23	0	0
			Ashford	2	1984	1.2	D	128	250	50	**0**	**0**	**65**	**5**	**1**	**1**	100	360	100	41	99	360	100	14	99	360	100	19	84	19	**7**	**100**	**37**	**0**	**0**
			Yetman	3		0.5	CH	27							0	0	100		100	21	100	1	100	1			100	12	100	12	8	50	31	0	0
63	**Inverell**		***Total/Weighted Average***			**19.7**	D	**2,100**	**250**	**70**	**9**	**3**	**65**	**205**	**1**	**0**	**100**	**720**	**100**	**163**	**99**	**721**	**100**	**375**	**99**	**720**	**100**	**51**	**94**	**51**	**1**	**64**	**30**	**0**	**0**
64	Jerilderie (Dual Supply)		Jerilderie Water Filtration Plant	1	1980	8.0	C	106	500	330	8	2	120	40	4	1	100	2	100	2	100	365	100	365	100	365	100	52	100	52			87	0	0
65	Junee	***NO WS***																																
			Belgrave Falls	1		5.0	CH	***183***							2	2			99	136	100	2	97	49			98	53	64	53	0	67	100	0	0
			Sherwood	2		15.0	CH	2,936							3	1			99	523	100	13	98	143			94	141	76	141	14	100	100	0	0
			South West Rocks	3		3	CH	619							1	0.6			100	139	100	2	100	51			100	53	98	53	26	100	100	0	0
			Crescent Head	4		3.0	CH	20							3	3			100	2	100	2	98	49			100	53	91	53	6			0	0
			Stuarts Point	5		3	D	191							1	0.5			100	139	100	2	100	50			100	53	98	53	1	100	100	0	0
		Emergency Supply	Kinchela	6		2.2	CH	0																										
			Hat Head	7		1.9	CH	71							0.4	0.3			98	91	100	2	96	27			100	26	100	26	1	100	100	0	0
			Willawarrin	8		0	CH	12							0	0.3			100	91	100	2	100	27			92	27	88	27	0	100	100	0	0
			Bellbrook	9		0.1	CH	11							1	0			100	91	100	2	100	27			96	26	92	26	85	100	100	0	0
66	**Kempsey (Groundwater**		***Total/Weighted Average***			**33.2**		**4,043**							**3**	**3**			**100**	**1,212**	**100**	**27**	**100**	**423**			**100**	**432**	**100**	**432**	**10**	**97**	**100**	**0**	**0**
			Kyogle	1	1988	3	C	361	225	15	10	1	11	2	2	0.8	100	1	100	52	100	2	100	2	100	1	70	50	46	50	1	100	96	2	0
		Bulk Supply from Tente	Woodenbong	2			CH		974	145	437	114	115	10	41	7	0	26	10	26	10	26	100	26	0	26	94	88	55	89				1	0
			Bonalbo	3			CH		557	78	360	120	13	3	20	9	0	26	100	41	0	26	100	26	0	26	96	30	30	30		100	58	0	0
67	**Kyogle**		***Total/Weighted Average***			**3**		**361**	**225**	**15**	**10**	**1**	**11**	**2**	**2**	**1**	**2**	**53**	**80**	**119**	**9**	**54**	**100**	**54**	**2**	**53**	**87**	**168**	**48**	**169**	**3**	**100**	**100**	**2**	**0**
			Conbobolin	1		7.5	C	1,008	63	14	2	2	87	27	1.6	0.7	100	4	100	9	100	4	100	4	100	4	100	48	95	48	2	92	92	0	0
			Lake Cargelligo	2	1930	4.5	C	472					192	72	3	2	67	3	100	62	100	3	100	3	100	3	95	47	82	47	0	100	90	16	37
			Tottenham	3	1994	1.1	L	9	21	14	2	1	32	28	53	19	67	3	93	61	66	3	66	3	100	3	100	39	56	100	0	100	100	0	0
68	**Lachlan**		***Total/Weighted Average***			**13.1**		**1,489**	**63**	**14**	**2**	**2**	**120**	**41**	**2.3**	**1.1**	**80**	**10**	**97**	**132**	**90**	**10**	**90**	**10**	**100**	**10**	**98**	**134**	**72**	**195**	**1**	**86**	**82**	**6**	**13**
			Leeton	1	1993	25.0	C	3,160	230	76	2	1	125	30	6	3	100	4	100	247	100	300	100	300	100	300	100	300	96	56	0	100	88	0	0
			Whitton	2		1	C	125	140	60	2	1	100	43	1	0.3	100	4	100	42	100	300	100	300	100	300	100	27	100	27	17	100	96	0	0
			Murrami	3	1993	0.3	L	16	100	35	3	1	98	25	2	1	100	4	97	42	100	300	100	300	100	300	100	26	100	26	0	100	96	0	0
69	**Leeton**		***Total/Weighted Average***			**26.2**		**3,301**	**226**	**75**	**2**	**1**	**124**	**30**	**6**	**3**	**100**	**12**	**100**	**331**	**100**	**900**	**100**	**900**	**100**	**900**	**100**	**353**	**98**	**109**	**1**	**100**	**93**	**0**	**0**
		Bulk Supply from Rous				60.0		3,540							7	1	100	12	99	207	91	12	100	12	83	12	98	142	87	142	2	83	96		
			Nimbin	1			CH	151	65	49			5	2	3	2	100	2	100	42	100	2	100	2	100	2	96	26	84	26	0	100	81		
70	**Lismore (Reticulator)**		***Total/Weighted Average***			**60**		**151**	**65**	**49**			**5**	**2**	**3**	**2.2**	**100**	**14**	**99**	**249**	**92**	**14**	**100**	**14**	**85**	**14**	**98**	**168**	**87**	**168**	**2**	**92**	**89**		
71	Lithgow		Oakey Park	1	1985	12.0	CH	1,500	300	30	5	3	50	5	1	0.3	100	12	97	308	100	15	60	15	100	12	100	74	70	74	1	100	95	0	0
72	Lockhart	***NO WS***																																
73	North Coast (Unfiltered)		Rushforth Road	1		38	CH	4,550	40	15	40	15	5	2	5	1.5	93	15	99	310	99	806	100	806	88	52	95	767	4	767	21	100	96	0	0
74	Maclean	***NO WS***																																
75	Manilla		Manilla	1	1990	5	C	487	200	11	5	5	28	6	0	0.2	100	6	91	513	100	3	100	3	100	3	100	52	71	52	0			0	0

Appendix D1 - 2003/04 Water Treatment Data

Notes:

1. Where a water utility has more than one water treatment works, the reported compliance values have been pro-rated on the basis of the number of samples tested at each treatment works and are shown in bold in the final line for that water utility. Totals are shown for capacity (37B), treated volume (38B), and number of samples (eg. 42B). The days of chlorination system failure (44), and days of major malfunction of treatment processes (45) shown are the weighted average based on treatment works capacity.
2. For "Type of Treatment Works"; A = Aerated and Disinfected, C = Conventional Water Treatment, CH = Chlorination Only, D = Direct Filtration, DAF = Dissolved Air Flotation, L = Lagoon Sedimentation, M = Microfiltration, OZ = Ozonation, UV = Ultra-Violet Disinfection.
3. For water quality complaints, the weighted average values shown are on the basis of the total water complaints divided by the number of connected properties.

	Water Utility	Comment	Water Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Type of Treatment Works[2]	Volume Treated	Colour Units				Turbidity Units				Percentage Test Compliance With 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines														Water Quality Complaints[3]	Chemical Monitoring Compliance	Total Coliforms Monitoring Compliance	Chlorination System Failure	Major Malfunction of Treatment Processes
									Raw Water		Treated Water		Raw Water		Treated Water		Physical		Chemical		Turbidity		pH		Colour		E. coli		Total Coliforms						
			37a			ML/d 37b	38a	ML 38b	Max 39a	Avg 39b	Max 39c	Avg 39d	Max 40a	Avg 40b	Max 40c	Avg 40d	% 42a	Samples 42b	% 42c	Samples 42d	% 42e	Samples 42f	% 42g	Samples 42h	% 42i	Samples 42j	% 42k	Samples 42l	% 42m	Samples 42n	per 1,000 properties	% 44o	% 44p	days 44	days 45
			Merriwa	1	1980	2.3	A	310	40	40	3	1	20	20	1	0.6	100	3	100	3	100	3	100	2	100	2	99	52	96	52	4			0	0
			Cassilis	2		0.6	A	18			1	1			0.2	0.2	100	2	100	2	100	2	100	2	100	2	96	26	92	26	9			0	0
76	**Merriwa (Groundwater)**		***Total/Weighted Average***			**2.9**		**328**	**40**	**40**	**2**	**1**	**20**	**20**	**1**	**0.6**	**100**	**5**	**100**	**5**	**100**	**5**	**100**	**4**	**100**	**4**	**98**	**78**	**95**	**78**	**5**			**0**	**0**
77	MidCoast (Manning - Unfi			1			CH								2	1			100	256	100	12	100	12			97	423	48	423		100	100		
78	MidCoast (Great Lakes -			1			CH																										
			Bootawa Dam	1		70	CH	10,262	18	11	43	4	10	6	19	1.3	98	3,081	98	2,054	99	1,027	94	1,027	99	1,027	96	1,027	81	1,027	29			0	0
			Tea Gardens	2		4	A	699	19	13	18	11	6	2	21	0.8	94	450	52	300	99	150	85	150	97	150	95	150	91	150	3			18	0
			Bulahdelah	3		2	D	189	140	80	16	4	31	10	8	1	96	366	84	354	99	122	89	122	99	122	100	122	99	122	15	100	100	5	8
			Stroud	4	1997	2.0	D	146	78	16	3	0	26	4	2	1	100	465	94	438	100	155	100	155	100	155	100	155	99	155	0	100	100	0	0
79	**MidCoast (Combined - U**		***Total/Weighted Average***			**78**		**11,296**	**21**	**12**	**40**	**5**	**10**	**5**	**19**	**1**	**97**	**4,362**	**92**	**3,146**	**99**	**1,454**	**94**	**1,454**	**99**	**1,454**	**97**	**1,454**	**85**	**1,454**	**27**	**100**	**100**	**1**	**0**
			Broadwater Creek	1		16	CH	2,018									100	12	100	12	100	12	100	365	100	12	100	89	97	89	0			0	0
			Mash	2		5.1	CH	859									99	12	100	12	100	12	100	365	100	12	100	52	100	52	0			0	0
			Industrial Dr	3		3.4	CH	57									99	12	100	12	100	12	99	365	100	12	100	52	100	52	0			0	0
			Boggabilla	4		1	D	121			20	5	95	25	2	0.3	100	2	100	2	97	365	100	365	100	365	100	52	100	52	20			1	1
			Mungindi	5		0.8	C	121	100	85	5	5	1,000	215	3	0	100	2	100	41	98	365	100	365	100	360	98	69	86	69	40	17	100	1	1
			Pallamallawa	6		0.6	CH	68							29	3	50	2	99	567	89	28	95	365			92	38	86	38	444	100	100	14	7
80	**Moree Plains (Groundwa**		***Total/Weighted Average***			**27**		**3,244**	**100**	**85**	**20**	**5**	**1,000**	**215**	**29**	**2.7**	**97**	**42**	**99**	**646**	**97**	**794**	**99**	**2,190**	**100**	**761**	**99**	**352**	**95**	**352**	**12**	**100**	**100**	**0**	**0**
81	Mudgee (Unfiltered)		Mudgee / Gulgong	1		20	CH	2,000	5	5	5	5	10	1	10	1.0	64	11	0	11	64	11	100	11	100	11	98	63	84	63	24			0	0
82	Mulwaree		Marulan	1		1	M	110																			0	52	0	52	0			2	0
			Moama	1		6	DAF	572	150	84	5	5	30	12	1	1			100	21	100	1	100	1			100	11	100	11	0	50	21	0	0
			Mathoura	2		2.3	C	202	75	48	9	6	49	18	1	0			100	21	100	1	100	1			100	11	100	11	6	50	21	0	0
83	**Murray**		***Total/Weighted Average***			**8.3**	DAF	**774**	**130**	**74**	**6**	**5**	**35**	**14**	**1**	**0**			**100**	**42**	**100**	**2**	**100**	**2**			**100**	**22**	**100**	**22**	**2**	**50**	**21**	**0**	**0**
			Coleambally	1		5.0	A	370							2	1			100	42	100	2	100	2			100	52	98	52	8	100	98		
			Darlington Point	2			A	324							19	10			97	42	50	2	100	2			98	54	68	54		100	100		
84	**Murrumbidgee (Ground**		***Total/Weighted Average***			**5.0**	CH	**694**							**10**	**5**			**99**	**84**	**75**	**4**	**100**	**4**			**99**	**106**	**83**	**106**	**16**	**100**	**100**		
			Murrurundi	1		2	L	153			2	2			2	1.4					100	10	20	5	100	8	98	52	83	54	17			3	3
			Willow Tree	2		0.7	CH	45			7	4			1	0					100	8	100	8	100	6	98	34	97	34	29			3	3
85	**Murrurundi**		***Total/Weighted Average***			**3.1**		**198**			**3**	**2**			**2**	**1**					**100**	**18**	**69**	**13**	**100**	**14**	**98**	**86**	**88**	**88**	**20**			**3**	**3**
			Muswellbrook	1	1988	16	C	2,242			2	1	350	23	2	0.5	95	729	100	227	95	41	99	338	100	4	100	180	99	178	5	92	94	0	4
		Intake System	Denman Intake System	2		4.5	CH								18	6	49	214	95	107	27	48	74	46	100	1	99	83	99	77	47	100	100	0	0
		Non-Potable	Sandy Hollow	3		0.3	CH	30							3	1	35	197	92	84	75	44	70	46			100	69	91	69	0	100	92	0	0
86	**Muswellbrook**		***Total/Weighted Average***			**20.8**		**2,272**			**2**	**1**	**350**	**23**	**2**	**1**	**76**	**1,140**	**97**	**418**	**64**	**133**	**93**	**430**	**100**	**5**	**100**	**332**	**97**	**324**	**14**	**97**	**95**	**0**	**3**
87	Nambucca (Groundwater		Nambucca	1		23	CH	1,813							0	0.3	100	12	100	248	100	12	100	12	100	10	100	111	94	111		100	97	0	0
			Narrabri	1		19	CH	2,696	11	4			2	1	2	0.7	100	9	100	188	100	9	100	9	100	8	94	54	88	54		75	100	2	2
			Gwabegar	2		10.9	CH	634	1	1			0	0	1.2	0.9	100	2	100	41	100	2	100	2	100	2	95	55	62	55		100	96	0	0
			Pilliga	3		2	CH	313	1	1			0	1	0	0.2	100	3	100	41	100	3	100	3	100	3	100	45	91	45		100	100	2	2
			Bellata	4		1.2	CH	30	2	2			0	0	0	0	100	2	95	41	100	2	100	2	100	2	100	26	77	26		100	100	0	0
			Wee Waa	5		0	CH	45	1	1			0	0	0	0	0	2	100	41	100	2	100	2	100	2	94	55	61	55		100	100	3	3
			Boggabri	6		0	CH	15	7	5			1	1	1	1	100	2	100	61	100	3	100	3	100	2	100	49	91	49		100	94	0	0
88	**Narrabri (Groundwater)**		***Total/Weighted Average***			**34.2**	CH	**3,733**	**8**	**3**			**2**	**1**	**2**	**1**	**90**	**20**	**100**	**413**	**100**	**21**	**100**	**21**	**100**	**19**	**97**	**284**	**78**	**284**		**100**	**99**	**1**	**1**
89	Narrandera (Groundwater		Narrandera	1		21.8	CH	1,581							1.7	0.9	100	11	95	192	100	11	100	11	100	11	100	72	94	72		75	**85**	0	0
90	Narromine (Groundwater)		Narromine	1			A	1,437																			100	17	88	17			33	0	0
91	Nundle (Groundwater)		Nundle	1	1995		L	93	10	5	1	2		2	1	0	100	4	96	85	100	2	97	29	100	2	100	30	67	30				0	0
92	Oberon (Unfiltered, Reticu	***Bulk Supply from Fish River***							30	20	0	0	5	2	0	0			100	45	100	2	100	4	100	2	100	51	96	55		100	98	0	0
			Icely Road	1	1982	38.0	C, OZ	4,317	18	8	2	1	16	3	2	0	100	16	100	329	100	16	100	16	100	16	93	161	65	161	19	100	97	0	365
			Spring Creek	2		12.0	C	613	30	9	2	1	38	9	3	1			100	42	100	2	100	2										0	126
			Spring Hill / Lucknow	3		0.8	CH	106							1	0	100	2	100	50	100	2	100	2	100	2	100	81	69	81		100	100	0	0
93	**Orange**		***Total/Weighted Average***			**50.8**		**5,036**	**30**	**9**	**2**	**1**	**38**	**9**	**2**	**0**	**100**	**18**	**100**	**421**	**100**	**20**	**100**	**20**	**100**	**18**	**100**	**242**	**69**	**242**	**15**	**78**	**84**	**0**	**303**
94	Parkes		Parkes	1	1987	9	C	1,645	10	5	1	0	140	10	2	0	100	12	100	377	100	14	100	14	100	12	100	86	97	86	2	100	77	0	0
		Bulk Supply from Tamw	Kootingal / Moonbi	1	1991		C	451	2	2	2	2	0	0	0.3	0.3	100	2	100	29	100	1	100	1	100	1	100	23	91	23	0			0	0
			Attunga	2			CH	68	1	1	1	1	9	9	9	9	50	2	89	29	0	1	100	1	100	1	100	19	100	19	0			0	0
			Bendemeer	3			CH	**37**	**16**	**16**	**16**	**16**	**12**	**12**	**12**	**12**	**0**	**2**	**93**	**29**	**0**	**1**	**100**	**1**	**0**	**1**	**83**	**23**	**65**	**23**				**0**	**0**
95	**Parry (Groundwater)**		***Total/Weighted Average***				CH	**556**	**2**	**2**	**2**	**2**	**2**	**2**	**2.1**	**2.1**	**50**	**6**	**94**	**87**	**33**	**3**	**100**	**3**	**67**	**3**	**94**	**65**	**84**	**65**	**2**				
		Bulk Supply from Coffs	Corindi Beach																															
		Bulk Supply from North	Waterview Heights																												0				
			Wooli	1			CH	144																						0			0	0
		Bulk Supply from North	Coutts Crossing																												0			0	0
			Glenreagh	2			CH	56																										0	0
			Minnie Water	3			CH	60																										**0**	**0**
96	**Pristine Waters (Unfilte**		***Total/Weighted Average***			**0**	CH	**260**																							**2**			**0**	**0**
97	Queanbeyan (Reticulator)	***Bulk Supply from ACTEW***															100	9	100	9	100	9	89	9			100	207	93	207	2				
98	**Quirindi (Groundwater)**	***Good Quality Untreated***						**579**									**100**	**4**	**100**	**4**	**100**	**4**	**100**	**4**	**100**	**4**	**100**	**36**	**100**	**36**					

Appendix D1 - 2003/04 Water Treatment Data

Notes:

1. Where a water utility has more than one water treatment works, the reported compliance values have been pro-rated on the basis of the number of samples tested at each treatment works and are shown in bold in the final line for that water utility.
   Totals are shown for capacity (37B), treated volume (38B), and number of samples (eg. 42B). The days of chlorination system failure (44), and days of major malfunction of treatment processes (45) shown are the weighted average based on treatment works capacity.
2. For "Type of Treatment Works"; A = Aerated and Disinfected, C = Conventional Water Treatment, CH = Chlorination Only, D = Direct Filtration, DAF = Dissolved Air Flotation, L = Lagoon Sedimentation, M = Microfiltration, OZ = Ozonation, UV = Ultra-Violet Disinfection.
3. For water quality complaints, the weighted average values shown are on the basis of the total water complaints divided by the number of connected properties.

Water Utility		Comment	Water Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Type of Treatment Works[2]	Volume Treated	Colour Units				Turbidity Units				Percentage Test Compliance With 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines												Water Quality Complaints[3]	Chemical Monitoring Compliance	Total Coliforms Monitoring Compliance	Chlorination System Failure	Major Malfunction of Treatment Processes
									Raw Water		Treated Water		Raw Water		Treated Water		Physical		Chemical		Turbidity		pH		Colour		E. coli		Total Coliforms						
									Max	Avg	Max	Avg	Max	Avg	Max	Avg	%	Samples	%	Samples	%	Samples	%	Samples	%	Samples	%	Samples	%	Samples					
			37a			ML/d 37b	38a	ML 38b	39a	39b	39c	39d	40a	40b	40c	40d	42a	42b	42c	42d	42e	42f	42g	42h	42i	42j	42k	42l	42m	42n	per 1,000 properties	% 44o	% 44p	days 44	days 45
		Bulk Supply from Rous	Casino	1	1985	23	C	2,374	500	47	5	2	100	8																0			0	0
99	Richmond Valley		***Total/Weighted Average***			**23.0**		**2,374**	**500**	**47**	**5**	**2**	**100**	**8**	**0.3**	**0.1**			**96**	**33**	**0.0**	**0.0**	**100**	**3**			**100**	**63**	**79**	**63**	**0**	**25**	**98**	**0**	**0**
			Water Works	1		44.0	C	5,685			40	5			3	1	99	185	97	896	100	33	91	220	93	27	99	422	95	422	0	100	96	0	0
			West Wagga	2		25.0	A	6,747			23	7			4.0	1.0	99	180	99	490	100	27	100	103	92	26	98	102	95	102	0			0	0
			North Wagga	3		25.0	A	2,505			12	**2**			1	**0**	100	162	100	437	100	27	100	85	100	26	100	75	99	75	0			0	0
			Ralvone	4		4	A	330			35	7			2	0.8	99	86	99	159	100	24	100	26	96	24	96	25	92	25	0	100	46	0	0
			Bulgary	5		3.0	A	541			52	7			9	1	95	172	99	303	97	36	93	84	92	36	100	84	99	84	0	17	100	0	0
			Gardiners Crossing	6	1961	1.5	A	181			7	2			4	1	100	59	95	112	100	12	100	29	100	12	100	52	90	52	0	33	100	0	0
			Urana	7		1.1	A	61	282	140	14	7	201	113	2	2	98	52	96	135	100	12	75	28	100	12	100	52	94	52	4	17	100	0	0
			Tarcutta	8		0.8	C	59			42	11			7	2	87	85	98	111	92	24	100	25	63	24	100	25	56	25	10	100	96	0	0
			Collingullie	9		0.6	A	83			38	10			6	2	91	87	93	158	96	24	100	27	71	24	100	13	92	13	52	100	93	0	0
			Oura	10		0.6	A	48							0	0	95	81	98	156	95	21	96	27	90	21	100	13	100	13	7	100	93	0	0
			Rand	11		0	CH	21			68	12	265	41	4	2.0	77	88	86	183	100	24	82	28	75	24	100	26	81	26	59	100	100	0	0
			Woomargama	12		0.2	CH	17			104	10			19	2.0	88	77	96	157	88	24	100	25	73	22	100	25	56	25	39	100	96	0	0
			Humula	13		0.2	CH	12			27	5			3	1	100	85	100	159	100	24	100	26	100	24	93	28	89	28	20	100	100	0	0
			Walbundrie	14		0	C	10			63	12			11	2.0	78	88	77	185	96	24	96	28	67	24	89	28	67	28	20	100	100	0	0
			Morundah	15		0.2	C	9			31	4	48	38	10	1	94	83	87	157	91	23	85	27	96	23	100	26	100	26	0	50	100	0	0
100	Riverina (Groundwater)		***Total/Weighted Average***			**107**		**16,309**	**282**	**140**	**104**	**12**	**265**	**113**	**3**	**0.9**	**94**	**1,570**	**96**	**3,798**	**97**	**359**	**94**	**788**	**87**	**349**	**99**	**996**	**92**	**996**	**1**	**68**	**82**	**0**	**0**
			Nightcap	1	1991	70	DAF,D	10,870	181	92	8	4	6	3	0	0	100	52	100	52	100	52	100	52	100	52	100	52	100	52	0		15	0	0
			Knockrow	2		6.0	D	153	110	5	7	3	9	4	0	0	100	18	100	18	100	18	100	18	100	18	100	18	100	18	1			0	0
101	Rous (Bulk Supplier)		***Total/Weighted Average***			**76**		**11,023**	**180**	**91**	**8**	**3**	**6**	**3**	**0**	**0**	**100**	**70**	**100**	**70**	**100**	**70**	**100**	**70**	**100**	**70**	**100**	**70**	**100**	**70**	**0**			**0**	**0**
102	Rylstone		Rylstone	1	1971	4	C	493	42	20	3	1	5	2	1	0	100	12	100	12	100	52	100	52	100	52	100	62	98	62	3			0	0
103	Scone (Unfiltered)		Scone And Aberdeen	1		12	CH	1,739					2	0			100	14	92	14	100	14	100	14			100	179	97	179	4			5	5
104	Severn		Deepwater	1		1.8	CH	29																			87	23	17	23	49			7	7
			Bamarang	1	1999	75.0	C	9,705	40	20	3	3	2		7	1	98	90	99	1,607	98	91	93	91			98	650	80	650	1	100	100	0	0
			Flatrock	2	1998	28.0	C	2,847	100	47	3	3	2	1	11	1	100	47	98	663	98	47	100	50			100	76	91	76	3	100	100	0	0
			Milton	3	1998	10.5	D	1,595	60	38	5	3	7	3	1	0	97	55	100	452	96	55	96	55			99	147	99	127	13			0	0
			Kangaroo Valley	4	1993	1.3	M	85	70	43	35	5	10	4	12	1	96	24	98	398	95	24	87	24			10	56	73	56	4	100	100	0	0
105	Shoalhaven		***Total/Weighted Average***			**114.8**		**14,232**	**54**	**28**	**3**	**3**	**3**	**4**	**7**	**1**	**98**	**216**	**99**	**3,120**	**97**	**217**	**95**	**220**			**93**	**929**	**83**	**909**	**3**	**100**	**100**	**0**	**0**
106	Singleton		Obanvale	1	1993	30.0	D	2,799	5	5	5	5	8	1	1	0	100	600	100	600	100	600	100	600	100	600	100	179	99	179	2	100	100	0	0
			Adaminaby	1		8.6	CH	123							6	5.2			97	42	50	2	100	2			92	25	40	25		67	96	0	0
			East Jindabyne	2		8.6	CH	67																									0	0
			Kalkite	3		8.0	CH	704							47.5	47.5			95	21	0	1	100	1			97	33	76	33		33	94	0	0
			Berridale	4		1.8	CH	19							4	2			100	51	100	2	100	2			98	49	75	49		100	94	2	0
			Dalgety	5		1	CH	20							2.2	2.2			95	20	100	1	100	1			85	27	56	27		50	100	0	0
			Jindabyne	6		1.1	CH	45							2	1			98	226	100	11	63	11			100	75	81	75		92	96	0	0
107	Snowy River (Unfiltered		***Total/Weighted Average***			**29**		**978**							**48**	**47.5**			**100**	**360**	**100**	**17**	**100**	**17**			**100**	**209**	**81**	**209**		**100**	**91**	**0**	**0**
108	Sydney Water	***Metropolitan***						562,746				2				0.1					100	7,800	95	7,800	100	336	100	7,800	99	7,800	1				
109	Tallaganda (Unfiltered)			1			CH																										
110	Tamworth		Calala	1	1991	80.0	C	8,480	123	11	12	2	37	6	2	1	97	59	100	247	100	12	100	12	100	11	96	136	88	136	1	100	100	0	0
111	Temora	***NO WS***																															
			Urbenville	2		2	CH	119																			100	36	100	36	0			5	3
			Tenterfield	1	1986	5.0	C	392	210	95	14	6	22	8	1	0	100	36	100	12	100	366	85	366	100	366	100	36	100	36	4		35	0	9
		Water from Stanthorpe	Jennings				CH																				**100**	**24**	**100**	**24**					
112	Tenterfield		***Total/Weighted Average***			**7**		**511**	**210**	**95**	**14**	**6**	**22**	**8**	**1**	**0.4**	**100**	**36**	**100**	**12**	**100**	**366**	**85**	**366**	**100**	**366**	**100**	**96**	**100**	**96**	**5**			**1**	**6**
			Tumbarumba	1		4	CH	310							1	1.1			100	42	100	2	100	2			96	53	36	53	3	100	100	1	1
			Khancoban	2		2.5	CH	102							2	2			100	21	100	1	100	1			100	27	96	27	0	50	100	0	0
113	Tumbarumba (Unfiltered		***Total/Weighted Average***			**6.5**		**412**							**1**	**1**			**100**	**63**	**100**	**3**	**100**	**3**			**97**	**80**	**56**	**80**	**2**	**75**	**100**	**1**	**1**
			Tumut	1	1987	16.0	C	1,448	250	45	5	5	10	4	2	0	100	140	96	217	100	11	22	9	100	11	100	72	97	72	5	75	100	0	0
			Adelong	2	1996	2.7	L	175	550	8	29	**1**	172	11	2	0	100	100	98	62	100	2	100	2	100	1	100	54	91	54	2	100	**92**	0	0
			Batlow	3		2.1	M	283	200	90	25	0	50	4	35	1	100	100	98	62	100	2	50	2	100	1	100	54	98	54	14	100	98	0	0
			Talbingo	4		2.1	D	62	65	18	5	**5**	7	1	2	0	100	50	100	62	100	2	100	2	100	1	100	27	100	27	3	100	**92**	0	0
			Brungle	5		0.3	M	20	225	15			42	4	9	5	93	68	95	62	50	2	50	2	100	1	100	20	80	20	46	100	100	0	0
114	Tumut		***Total/Weighted Average***			**23.2**		**1,989**	**263**	**47**	**29**	**5**	**30**	**4**	**7**	**0**	**99**	**458**	**97**	**465**	**95**	**19**	**47**	**17**	**100**	**15**	**100**	**227**	**95**	**227**	**6**	**88**	**91**	**0**	**0**
			Bray Park	1	1998	60.0	C	9,461	45	16	3	1	350	9	4	0	100	1,824	100	5,476	100	451	47	1,228	100	466	99	371	98	461	3	100	97	0	0
			Uki	2		0.4	D	57	50	24	5	2	89	6	1	0.5	100	417	100	1,019	100	103	86	161	100	107	97	90	100	1,041	0	100	100	0	1
			Tyalgum	3		0.3	D	42	24	12	15	6	11	3	8	3	100	413	93	838	97	102	99	159	98	106	100	89	100	102	0	100	100	0	0
115	Tweed		***Total/Weighted Average***			**60.7**		**9,560**	**44**	**16**	**3**	**1**	**347**	**9**	**4**	**0.5**	**100**	**2,654**	**99**	**7,333**	**100**	**656**	**57**	**1,548**	**100**	**679**	**99**	**550**	**99**	**1,604**	**2**	**100**	**100**	**0**	**0**
116	Uralla		Kentucky Creek	1	1984	5.0	C	315	200	18	5	3	12	5			100	14							100	14					3	0		0	0
16-A	Urana	**NO WS**																															
117	Wagga Wagga	***NO WS***																															

Appendix D1 - 2003/04 Water Treatment Data

Notes:

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2. For "Type of Treatment Works"; A = Aerated and Disinfected, C = Conventional Water Treatment, CH = Chlorination Only, D = Direct Filtration, DAF = Dissolved Air Flotation, L = Lagoon Sedimentation, M = Microfiltration, OZ = Ozonation, UV = Ultra-Violet Disinfection.
3. For water quality complaints, the weighted average values shown are on the basis of the total water complaints divided by the number of connected properties.

Water Utility		Comment	Water Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Type of Treatment Works[2]	Volume Treated	Colour Units				Turbidity Units				Percentage Test Compliance With 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines												Water Quality Complaints[3]	Chemical Monitoring Compliance	Total Coliforms Monitoring Compliance	Chlorination System Failure	Major Malfunction of Treatment Processes
									Raw Water		Treated Water		Raw Water		Treated Water		Physical		Chemical		Turbidity		pH		Colour		E. coli		Total Coliforms					
									Max	Avg	Max	Avg	Max	Avg	Max	Avg	%	Samples	%	Samples	%	Samples	%	Samples	%	Samples	%	Samples	%	Samples					
			37a			*ML/d* *37b*	*38a*	*ML* *38b*	*39a*	*39b*	*39c*	*39d*	*40a*	*40b*	*40c*	*40d*	*42a*	*42b*	*42c*	*42d*	*42e*	*42f*	*42g*	*42h*	*42i*	*42j*	*42k*	*42l*	*42m*	*42n*	*per 1,000 properties*	*44o*	*44p*	*44*	*45*
		Bulk Supply from Lower	Barham	1	1993	2	L								1	1			100	21	100	1	100	1			100	49	82	49	0	100	94	0	0
			Wakool	2		1	M	1							36	34			95	42	0	2	100	2			100	25	84	25	0	100	96	0	0
			Murray Downs	3		1	D	124							2	0.6			98	62	100	3	100	3			100	34	94	34	0	100	89	0	0
			Mouldmein	4		1	M								0	0.1			100	42	100	2	100	2			100	25	96	25	0	100	96	0	0
			Tooleybuc	5		0.3	L						100	30	0	0.2			100	42	100	2	100	2			100	25	92	25	0	100	96	0	0
			Koraleiga	6		0.1	M	37							1	0			97	42	100	2	50	2			100	16	81	16	0	100	89	0	0
118	**Wakool (Dual Supply)**		***Total/Weighted Average***			**5.1**		**163**					**100**	**30**	**2**	**1**			**98**	**251**	**83**	**12**	**92**	**12**			**100**	**174**	**88**	**174**	**0**	**100**	**93**	**0**	**0**
119	Walcha		Walcha	1	1985	4.8	C	225	125	4	8	3	28	6	2	1	98	64	100	31	100	26	92	26	100	12	100	28	96	28	4	92	54	0	0
			Walgett Town	1		1	C								2	0.9	100	2	100	42	100	2	100	365			100	33	88	33		100	63		
		Sub-artesian Bore	Rowena (Sub-Artesian Bore)	4											0.1	0.1			100	42	100	2	100	2			90	20	50	20		100	100	0	0
			Collarenebri	2	1964	0.4	C	65							0	0			100	21	100	1	100	365			93	46	65	46		50	87	0	0
		Artesian Bore	Carinda (Artesian Bore)	3											1	1			95	21	100	1	0	1			47	17	23	17		50	65	0	0
		Untreated Water	Lightning Ridge (Artesian Bore)												0	0			95	42	100	2	0	2			100	37	95	37		100	71	0	0
120	**Walgett (Dual Supply)**		***Total/Weighted Average***			**2**		**65**							**0**	**0**	**100**	**2**	**98**	**168**	**100**	**8**	**100**	**735**			**91**	**153**	**71**	**153**		**67**	**76**	**0**	**0**
			Warren	1	3.5	3.5	CH	372							1	1	100	2	97	42	100	2	50	2	100	2	100	2	50	2	2	100	4	0	0
			Nevertire	2	0.3	0	CH	42							1	0.7	100	2	97	43	100	2	100	2	100	2	100	2	50	2	0	100	17	0	0
121	Warren (Dual Supply)		Collie	3	0.04	0.0	CH	3							0	0	100	2	100	42	100	2	100	2	100	2	100	2	50	2	0	100	8	0	0
			Total/Weighted Average			**3.8**		**417**							**1**	**1**	**100**	**6**	**98**	**127**	**100**	**6**	**83**	**6**	**100**	**6**	**100**	**6**	**50**	**6**	**2**	**100**	**10**	**0**	**0**
122	Weddin	*NO WS*																																	
123	Wellington		Wellington	1	1993	14.6	L	1,185	10	6	4	1	200	15	6.0	2.0			100	249	100	12	95	365	100	52	100	60	73	60	17	92	94	0	0
			Wentworth	1	1994	1.4	L	260	256	10	20	2	70	11	6.0	0.3	100	2	92	25	100	212	100	212	100	212	77	56	62	56	7	50	100	0	0
			Gol Gol	2	1991	3.7	L	242	130	62	2	1	60	32	1.0	0	100	2	95	21	100	229	0	73	100	229	97	73	95	73	5	50	94	0	0
			Pooncarie	3	1994	0.2	L	10	180	65	5	1	250	40	17	5	100	2	98	231	73	178	100	11	100	178	91	22	68	22	50	100	81	0	0
124	**Wentworth (Dual Supply**		***Total/Weighted Average***			**5.3**		**512**	**195**	**36**	**11**	**2**	**69**	**21**	**3.9**	**0**	**100**	**6**	**97**	**277**	**92**	**619**	**75**	**296**	**100**	**619**	**89**	**151**	**79**	**151**	**7**	**100**	**92**	**0**	**0**
			Wingecarribee	1		40.0	DAF	3,592	55	31	3	**3**	6	3	1.4	**0.4**	100	12	99	248	100	12	91	12	100	10	98	259	85	259		100	96	0	0
			Bundanoon Creek	2	1988	10.0	DAF	914	55	38	3	3	3	1	1	1	100	3	100	71	100	3	100	3	100	3	100	47	81	47		92	94	0	0
			Medway Dam	3		8.0	C	668	40	23	3	3	3	2	2	1	100	12	99	248	100	12	100	12	100	11	100	87	89	87		100	99	0	0
125	**Wingecarribee**		***Total/Weighted Average***			**58.0**		**5,174**	**53**	**31**	**3**	**3**	**5**	**3**	**1**	**0.4**	**100**	**27**	**99**	**567**	**100**	**27**	**96**	**27**	**100**	**24**	**99**	**393**	**85**	**393**		**97**	**96**	**0**	**0**
126	Wyong		Mardi	1	1994	160.0	D	15,074	70	53	5	3	5	3	1	0	95	477	100	541	100	477	95	477	100	465	98	428	78	428	7	67	100	0	0
		Good Quality Untreated Groundwater	Warialda			3.0		374									100	47	100	47	100	47	100	47	100	47	96	47	89	47	0				
		Good Quality Untreated Groundwater	Gravesend			0.9		95													100	31	100	31	100	31	66	31	41	31	0				
		Good Quality Untreated Groundwater	North Star			0.4		42													0	1	100	1	100	1	100	10	60	10					
127	**Yallaroi (Groundwater)**		***Total/Weighted Average***			**4.3**		**511**									**100**	**47**	**100**	**47**	**99**	**79**	**100**	**79**	**100**	**79**	**86**	**88**	**69**	**88**	**0**				
			Bungendore	1		1.7	A	279													100	3					100	46	96	46	1			0	0
			Captains Flat	2		1	M	57	73	58	13	6	14	8	3	0.7					100	3	100	3			100	34	82	34	0			0	0
		Bulk Supply from Quean	Weetalabah					11																											
128	**Yarrowlumla (Groundwa**		***Total/Weighted Average***			**2.4**		**347**	**73**	**58**	**13**	**6**	**14**	**8**	**3**	**1**					**100**	**6**	**100**	**3**			**100**	**80**	**96**	**80**	**1**			**0**	**0**
			Yass	1	1989	13.0	DAF	850	200	60	15	5	80	15	2	0.6	100	366	99	288	100	366	100	366	100	366	95	85	67	85	1	100	91	0	0
			Murrumbateman Bore Supply	2		0.3		42							0	0			95	65	100	3	100	3			96	27	59	27	0	100	96		
129	**Yass**		***Total/Weighted Average***			**13.3**		**892**	**200**	**60**	**15**	**5**	**80**	**15**	**2**	**0.6**	**100**	**366**	**98**	**353**	**100**	**369**	**100**	**369**	**100**	**366**	**95**	**112**	**65**	**112**	**1**	**100**	**94**	**0**	**0**
130	Young (Reticulator)	*Bulk Supply from Goldenfields*													1	0.3			97	248	100	12	58	12			98	65	85	65		100	97		

Supplementary Notes:

1. Additional Chemical, Turbidity, pH, E. coli or Total Coliform results from the NSW Health Drinking Water Monitoring Program have been included in this Appendix for all LWUs **except**:
   Ballina, Balranald, Bega Valley, Bellingen, Bogan, Bombala, Boorowa, Byron, Cabonne, Carrathool, Central Darling, Central Tablelands, Coffs Harbour, Cooma-Monaro, Coonamble, Cootamundra, Corowa, Dungog, Goldenfields, Gunnedah, Hume, Inverell, Kyogle, Lismore, MidCoast, Moree Plains, Murray, Murrumbidgee, Narrabri, Narromine, Orange, Richmond Valley, Riverina, Snowy River, Tamworth, Tumbarumba, Tumut, Uralla, Wakool, Walgett, Wellington, Warren, Yass, Young.
2. The additional Chemical, E. coli and Total Coliform results from NSW Health Drinking Water Monitoring Program have been also included in Tables 5 and 12, and Figures 15 to 17.
3. NSW Health has also provided the Chemical Monitoring Compliance and the Microbiological Monitoring Compliance results for each LWU. These results have been adjusted to include sampling reported by LWUs, but not included in the Drinking Water Monitoring Program and are shown before colum 44. LWUs with under 100% in these columns should increase their future sampling to comply with the sample numbers recommended by NSW Health.

APPENDIX D2

2003/04 SEWAGE TREATMENT PERFORMANCE

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Appendix D2 - 2003/04 Sewage Treatment Data

Notes:

1. Where a water utility has more than one treatment work, the reported Licence Compliance values have been pro-rated on the basis of the number of sampling days at each treatment works and are shown in bold in the final line for that utility.
   Totals are shown for capacity (37B), sewage volume treated (38A), and sampling days (52). The days of major malfunction of treatment processes (53) shown are the weighted average based on treatment works capacity.
2. For each licence limit, the value shown in the final line for each water utility is that required to be met for at least 50% of the utility's total licenced treatment works capacity.
3. For **"Standard of Treatment"**; P = Primary; S = Secondary; AS = Advanced Secondary; T = Tertiary; AT = Advanced Tertiary. For **"Effluent Discharge"**; L = Land, O = Ocean, R = River.
4. For **"Type of Treatment Works"**; A= Oxidation Pond, AL = Aerated Lagoons, AN = Anaerobic Pond, C = Conventional Activated Sludge, CEA = Continuous Extended Aeration (Activated Sludge), IEA = Intermittent Extended Aeration (Activated Sludge), TF = Trickling Filter, BNR = Biological Nutrient Removal.
5. 90 Percentile Licence Limits have been reported for questions 50a, 50b, 50c, 50d, 50e, 50f and 50g.
6. For odour complaints, the weighted average values shown are on the basis of the total odour complaints divided by the number of connected properties.

	Water Utility	Comment	Sewage Treatment Works Name 37a	Treatment Works No. Licenced	Year built or Augmented	Capacity EP 37b	Standard of Treatment[3]	Type of Treatment Works[4]	Nitrogen Removal Yes/No 38b	Phosphorus Removal Yes/No 38c	Effluent Discharge[3]	Volume of Sewage Receiving Treatment ML 41c	90 Percentile Licence Limits[5] and DEC Licence Compliance: BOD mg/L 50a	BOD % Samples 51a	SS mg/L 50b	SS % Samples 51b	Total N mg/L 50c	Total N % Samples 51c	NH_3N mg/L 50d	NH_3N % Samples 51d	Oil & Grease mg/L 50e	Oil & Grease % Samples 51e	Total P mg/L 50f	Total P % Samples 51f	Faecal Coliforms cfu /100mL 50g	Faecal Coliforms % Samples 51g	Odour Complaints per 1,000 properties[6] 54	Sampling Days 52	Major Malfunction of Treatment Processes days 53
			Kremur St	1	1975	40,000	AS	CEA/BNR	YES	YES	L	2,414	15	69	20	23	15	100	5	92	10	92	1	92			0	15	0
			Waterview	2	1999	26,500	AT	CEA/BNR	YES	YES	L	2,649	12	100	15	92	15	100	5	85	2	85	1	69	300	92	0.5	15	0
1	Albury		***Total/Weighted Average1,3***			***66,500***			***YES***	***YES***		***5,063***	***15***	***85***	***20***	***58***	***15***	***100***	***5***	***89***	***10***	***89***	***1***	***81***		***92***	***0.4***	***30***	***0***
2	Armidale Dumaresq		Armidale	1	1989	22,000	S	TF	NO	NO	R/L	1,747	8	100	6	100	9		2		2	100	7		16		0.7	12	0
		100% Limits	Lennox	2	1982	18,000	AS	IEA	YES	NO	O	1,554	20	100	30	92					10	100			200	100	1	15	0
		100% Limits	Ballina	1	1975	12,000	AS	TF/IEA	NO	NO	R	1,504	20	86	60	88					10	93			300	100	1	15	0
		100% Limits	Alstonville	3	1986	8,000	AS	IEA	YES	YES	R	468	20	100	30	92					10	100	1	77			2	15	0
		100% Limits	Wardell	4		1,750	AS	IEA	YES	NO	R	121	15	100	20	89					10	100			200	58	2	28	0
3	Ballina (Reticulator)		***Total/Weighted Average1,3***			***39,750***			***YES***	***NO***		***3,647***	***20***	***97***	***30***	***90***					***10***	***99***		***77***	***200***	***100***	***1***	***73***	***0***
		No Discharge Licence	Balranald	1		2,000	S	A	NO	NO	L	146															0		
			Euston	2		1,100	S	A	NO	NO	L	104															0	2	0
4	Balranald (Dual Supply)		***Total/Weighted Average1,3***			***3,100***	***S***	***A***	***NO***	***NO***		***250***															***0***	***2***	***0***
5	Barraba		Barraba	1	1956	1,500	S	TF	NO	NO	L	133	20	100	30	100											0	14	0
6	Bathurst		Bathurst	1	1992	55,000	AS	IEA/BNR	YES	YES	R	3,312	20	100	25	96	15	100			10	100	1	90	200	97	0.2	53	0
			Tura Beach	5		15,500	AS	IEA	YES	NO	L/O	702	20	92	30	92					10	100					1	12	0
			Bega	3		4,000	S	TF	NO	NO	L/O	393	20	100	30	100					10	100					0	13	0
			Bermagui	6		8,000	AS	IEA	YES	NO	L/O	340	20	100	30	100					10	100					0	12	0
			Tathra	4		2,000	AS	IEA	YES	NO	L	203	20	92	30	92					10	100					0	12	0
			Eden	2	1998	2,000	AS	IEA	YES	NO	R/L	183	20	100	30	100					10	100					0	13	0
			Merimbula	1	1992	2,000	IEA	TF	YES	NO	R/L	127	20	92	30	92					10	100					13	13	0
7	Bega Valley (Unfiltered)		***Total/Weighted Average1,3***			***33,500***			***YES***	***NO***		***1,948***	***20***	***96***	***30***	***96***					***10***	***100***					***1***	***75***	***0***
			Urunga	2		6,650	AS	IEA	YES	YES	R	315	10	100	15	92	10	100	2	100	2	100	0	85	200	90	2	26	0
			Bellingen	1		4,000	AS	IEA	YES	YES	R	317	10	100	15	100	10	96	2	88	2	100	0	100	200	77	0	26	3
			Dorrigo	3		1,500	S	TF	NO	NO	R	116	20	85	30	93					10	100					0	12	0
8	Bellingen (Unfiltered)		***Total/Weighted Average1,3***			***12,150***			***YES***	***YES***		***748***	***10***	***97***	***15***	***95***	***10***	***100***	***2***	***100***	***2***	***100***	***0***	***100***	***200***	***90***	***1***	***64***	***1***
			Barooga	3	1992	3,200	S	A	NO	NO	L	221	30	100	30	100											0	6	0
			Berrigan	4	1966	4,000	S	TF	NO	NO	L	111	30	100	30	100											0	6	0
			Tocumwal	1	1944	1,500	S	TF	NO	NO	L	76	30	100	30	100											0	6	0
		No Licence Limits	Finley	2	1967	3,000	S	TF	NO	NO	L	72	30	100	30	100											0	6	0
9	Berrigan (Dual Supply)		***Total/Weighted Average1,3***			***11,700***			***NO***	***NO***		***480***	***30***	***100***	***30***	***100***											***0***	***24***	***0***
10	Bingara		Bingara	1	1970	2,000	S	TF	NO	NO	R	53	20	100	30	82					10	100					13	12	0
			West Wyalong	1	1986	7,200	AS	TF/IEA	YES	NO	R	215	20	100	30	77											0	15	0
			Ungarie	2	1961	600	S	IEA	YES	NO	R	30															0	2	0
			Barmedman	3	1940	400	S	TF	NO	NO	R	20															0	2	0
11	Bland		***Total/Weighted Average1,3***			***8,200***			***YES***	***NO***		***265***	***20***	***100***	***30***	***77***											***0***	***19***	***0***
12	Blayney		Blayney	1	1991	7,000	AS	IEA	YES	YES	R	258	30	100	30	100	15	100	2	100	10	100	1	100	600	100	0	260	0
13	Bogan	No Discharge Licence	Bogan	1		3,735	AS	IEA			L	281																2	
			Bombala	1		3,000	S	TF	NO	NO	R	135	20	100	30	100					10	100					2	8	1
		No Licence Limits	Delegate	2	1992	680	AS	IEA	YES	NO	R	35															0	0	0
14	Bombala		***Total/Weighted Average1,3***			***3,680***			***NO***	***NO***		***170***	***20***	***100***	***30***	***100***					***10***	***100***					***1***	***8***	***1***
15	Boorowa		Boorowa	1		2,400	S	TF	NO	NO	L																0	5	0
16	Bourke (Dual Supply)	No Discharge Licence	Bourke	1		5,000	S	A	NO	NO	L	240	15	20	20	10	15	0			10	0	10	0			8	10	0
			Brewarrina	1	1971	1,600	S	TF	NO	NO	R	180	20	100	30	100	15	100			10	100	10	100			0	3	30
		No Discharge Licence	Goodooga	2		1,600	S	A	NO	NO	L																0		
17	Brewarrina		***Total/Weighted Average1,3***			***3,200***			***NO***	***NO***		***180***	***20***	***100***	***30***	***100***	***15***	***100***			***10***	***100***	***10***	***100***			***0***	***2***	***15***
			Wills St	1			S	TF	NO	NO	L	1,063	40	100	45	92					10	89						27	0
			South Broken Hill	2			S	TF	NO	NO	L	300	50	100	50	100					10	100						27	0
18	Australian Inland		***Total/Weighted Average1,3***						***NO***	***NO***		***1,363***	***40***	***100***	***45***	***96***					***10***	***95***					***3***	***54***	***0***
			West Byron	6	1977	11,000	AS	IEA	YES	YES	R	790	20	100	25	100	15	100	5	92	10	100	1	100			1	52	0
			Ocean Shores	4	1976	8,000	S	TF	YES	YES	R	404	15	100	20	100	15	100	5	100	10	100	1	100	200	100	3	52	0
			South Byron	5	1971	4,700	S	TF	YES	NO	R	742	15	100	20	100	30	100	10	100	10	100	1	100	200	100	1	52	0
			Mullumbimby	3	1973	3,200	S	TF	YES	NO	R	583	15	100	20	100					10	100	1	92	200	100	1	52	0
			Brunswick Heads	2	1980	1,600	AS	IEA	YES	NO	R	289	30	100	30	100					10	100			200	100	4	52	0
			Bangalow	1	1990	1,400	AS	IEA	YES	YES	L	129	20	100	20	100	15	84			10	100	1	100	200	80	0	52	30
19	Byron (Reticulator)		***Total/Weighted Average1,3***			***29,900***			***YES***	***YES***		***2,937***	***20***	***100***	***25***	***100***	***15***	***100***	***5***	***100***	***10***	***100***	***1***	***100***		***100***	***2***	***312***	***1***
			Molong	1	1966	2,500	AS	IEA	NO	NO	R	149	30	86	30	29	15	100			10	100	10	100			0	7	0
			Canowindra	2	1978	2,000	S	TF	YES	NO	R	111	30	100	30	87	15	93			10	100	10	87	600	100	0	15	0
			Eugowra	3		550	S	TF	NO	NO	R	32															0	4	0
20	Cabonne		***Total/Weighted Average1,3***			***5,050***			***NO***	***NO***		***292***	***30***	***100***	***30***	***87***	***15***	***100***			***10***	***100***	***10***	***100***		***100***	***0***	***26***	***0***
		No Discharge Licence	Hillston	1	1978	1,000	AS	IEA	YES	NO	L	107															0	1	
		No Discharge Licence	Goolgowi	2	1973	300	S	A	NO	NO	L																0	1	
		No Discharge Licence	Rankins Springs	3	1986	200	S	A	NO	NO	L																0	0	0
21	Carrathool (Groundwater)		***Total/Weighted Average1,3***			***1,500***	***S***		***YES***	***NO***		***107***															***0***	***2***	***0***

Appendix D2 - 2003/04 Sewage Treatment Data

Notes:

1. Where a water utility has more than one treatment work, the reported Licence Compliance values have been pro-rated on the basis of the number of sampling days at each treatment works and are shown in bold in the final line for that utility.
   Totals are shown for capacity (37B), sewage volume treated (38A), and sampling days (52). The days of major malfunction of treatment processes (53) shown are the weighted average based on treatment works capacity.
2. For each licence limit, the value shown in the final line for each water utility is that required to be met for at least 50% of the utility's total licenced treatment works capacity.
3. For **"Standard of Treatment"**; P = Primary; S = Secondary; AS = Advanced Secondary; T = Tertiary; AT = Advanced Tertiary. For **"Effluent Discharge"**; L = Land, O = Ocean, R = River.
4. For **"Type of Treatment Works"**; A= Oxidation Pond, AL = Aerated Lagoons, AN = Anaerobic Pond, C = Conventional Activated Sludge, CEA = Continuous Extended Aeration (Activated Sludge), IEA = Intermittent Extended Aeration (Activated Sludge), TF = Trickling Filter, BNR = Biological Nutrient Removal.
5. 90 Percentile Licence Limits have been reported for questions 50a, 50b, 50c, 50d, 50e, 50f and 50g.
6. For odour complaints, the weighted average values shown are on the basis of the total odour complaints divided by the number of connected properties.

	Water Utility	Comment	Sewage Treatment Works *Name* *37a*	Treatment Works No. *Licenced*	Year built or Augmented	Capacity *EP* *37b*	Standard of Treatment[3]	Type of Treatment Works[4]	Nitrogen Removal *Yes/No* *38b*	Phosphorus Removal *Yes/No* *38c*	Effluent Discharge[3]	Volume of Sewage Receiving Treatment *ML* *41c*	90 Percentile Licence Limits[5] and DEC Licence Compliance												Odour Complaints per 1,000 properties[6] *54*	Sampling Days *days* *52*	Major Malfunction of Treatment Processes *days* *53*
													BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms				
													mg/L *50a*	*% Samples* *51a*	*mg/L* *50b*	*% Samples* *51b*	*mg/L* *50c*	*% Samples* *51c*	*mg/L* *50d*	*% Samples* *51d*	*mg/L* *50e*	*% Samples* *51e*	*mg/L* *50f*	*% Samples* *51f*	*cfu /100mL* *50g*	*% Samples* *51g*			
22	Central Darling	No Discharge Licence	Wilcannia	**1**		1,510	**S**	**A**	NO	NO	**L**	100															15	4	0
23	Central Tablelands	NO SGE																											
24	Cobar	No Licence Limits	Cobar Sewerage	**1**	**1952**	8,000	**S**	**AL**	NO	NO	**L**	466	9.7	100	14.5	100	9.7	100			4.8	100	4.8	100		100	0	12	0
24-A	Cobar WB	NO SGE																											
			Coffs Harbour	**1**	**1986**	42,000	**AT**	**IEA/TF**	YES	NO	**O**	3,842	50	100	50	100					10	100					3	55	0
			Sawtell	**2**	**1986**	18,000	**AS**	**IEA**	YES	NO	**O**	1,280	20	100	30	100					10	100					2	54	0
			Woolgoolga	**3**	**1998**	10,000	**AT**	**IEA**	YES	YES	**R**	590	20	100	30	100	15	100			10	100	1	100	1000	85	6	55	0
			Moonee	**4**	**1999**	7,000	**AT**		YES	YES		139	20	100	30	100	15	100			10	100	1	100	1000	100	2	48	0
25	Coffs Harbour (Unfiltered)		***Total/Weighted Average1,3***			***77,000***		***CEA/BNR***	***YES***	***NO***		***5,851***	***50***	***100***	***50***	***100***		***100***			***10***	***100***		***100***		***100***	***3***	***212***	***0***
		No Licence Limits	Coolah	**1**	**1970**	1,000	**S**	**A**	NO	NO	**R**	120	22	100	8	100	1	100	17	100	3	100	7	100	4	100	0	6	0
			Dunedoo	**2**	**1970**	1,000	**AS**	**IEA**	NO	NO	**R**	120	19	80	83	80	1	80	2	80	4	80	6	80	4	80	0	6	0
26	Coolah		***Total/Weighted Average1,3***			***2,000***			***NO***	***NO***		***240***	***22***	***90***	***8***	***90***	***1***	***90***	***17***	***90***	***3***	***90***	***7***	***90***	***4***	***90***	***0***	***12***	***0***
			Coolamon	**1**	**1965**	1,400	**S**	**TF**	NO	NO	**L**	46	30		20										10			16	0
		No Licence Limits	Ganmain	**2**		800	**S**	**A**	NO	NO	**L**	26																	
27	Coolamon		***Total/Weighted Average1,3***			***2,200***			***NO***	***NO***		***72***	***30***		***20***										***10***			***16***	***0***
			Cooma	**1**	**1998**	15,000	**AT**	**IEA**	YES	YES	**R**	468	10	100	15	100	10	100	2	100	2	100	0	100	200	100	1	15	0
			Nimmitabel	**2**		500	**AS**	**IEA**	NO	YES	**R**	11	20	100	30	100					10	100					31	15	0
28	Cooma-Monaro		***Total/Weighted Average1,3***			***15,500***			***YES***	***YES***		***479***	***10***	***100***	***15***	***100***	***10***	***100***	***2***	***100***	***2***	***100***	***0***	***100***	***200***	***100***	***2***	***30***	***0***
			Coonabarabran	**1**	**1964**	3,200	**S**	**TF**	NO	NO	**L/R**	295	20		25		20							10				0	12	0
		No Licence Limits	Baradine	**2**		800	**S**	**AN**	NO	NO		75																0	0	0
29	Coonabarabran		***Total/Weighted Average1,3***			***4,000***			***NO***	***NO***		***370***	***20***		***25***		***20***							***10***			**0**	***12***	***0***
			Coonamble	**1**	**1964**	4,000	**S**	**TF**	NO	NO	**L**	155	20	100	55	25	20	100			10	100	0	100				10	2
			Gulargambone	**2**	**1998**	750	**AS**		NO	YES		18	20	85	25	25	15	100			10	100	15	100	400		0	12	0
30	Coonamble (Groundwater)		***Total/Weighted Average1,3***			***4,750***		***IEA***	***NO***	***NO***		***173***	***20***	***92***	***55***	***25***	***20***	***100***			***10***	***100***	***0***	***100***			**0**	***22***	***2***
31	Cootamundra (Reticulator)		Cootamundra	**1**	**1992**	14,000	**AT**	**CEA**	YES	YES	**R**	630	30	100	40	85	20	100			10	100	1	100	200	100	0	6	0
			Junction Hill 1	**3**	**1982**	600	**S**	**TF**	YES	NO	**R**	40	20	100	30	77					10	100						13	0
			Junction Hill 3	**1**	**1982**	450	**AS**	**IEA**	NO		**R**	30	20	8	30	0					10	100					0	13	0
			Junction Hill 2	**2**	**1978**	500	**AS**	**IEA**	YES	NO	**R**	30	20	100	30	100					10	100						13	0
32	Copmanhurst (Unfiltered)		***Total/Weighted Average1,3***			***1,550***			***YES***	***NO***		***99***	***20***	***69***	***30***	***59***					***10***	***100***					***0***	***39***	***0***
			Corowa	**1**	**1988**	12,200	**S**	**TF**	NO	NO	**R**	461															2	13	0
			Mulwala	**2**	**1968**	1,200	**S**	**TF**	NO	NO	**R**	272	20	80	30	40	40		0		10	100	10		0		7	13	0
33	Corowa		***Total/Weighted Average1,3***			***13,400***			***NO***	***NO***		***733***		***80***		***40***						***100***					***3***	***26***	***0***
34	Cowra		Cowra	**1**	**1977**	10,000	**S**	**TF**	NO	NO	**R**	772	20	75	30	58					10	100					0.3	12	0
35	Crookwell		Crookwell	**1**		5,000	**S**	**TF/IEA**	YES	YES	**R**	247	16	100	26	100	9	100			1	100	1	75			0	13	0
		No Licence Limits	Culcairn	**1**	**1971**	1,000	**AS**	**IEA**	YES	NO	**L**	117															0	6	0
		No Licence Limits	Henty	**2**	**1971**	1,000	**AS**	**IEA**	YES	NO	**L**	58															0	6	0
			Walla Walla	**3**	**1981**	1,000	**AS**	**IEA**	YES	NO	**R**	60															0	5	0
36	Culcairn (Groundwater)		***Total/Weighted Average1,3***			***3,000***			***YES***	***NO***		***235***															**0**	***17***	***0***
37	Deniliquin		Deniliquin	**1**		11,500	**S**	**TF**	NO	NO	**L**	794	20	69	30	77	40	100			10	100	10	92			1	13	0
			Troy Junction	**1**	**1985**	40,000	**AS**	**CEA**	YES	NO	**L/R**	1,849	30	100	30	67	15	100	5	100	10	75	10	92	5	100	0	12	0
			Bunglegumbie	**2**		20,000	**S**	**TF**	NO	NO	**L**	954	50		60					100		100		100		100	0	12	0
38	Dubbo		***Total/Weighted Average1,3***			***60,000***			***YES***	***NO***		***2,803***	***30***	***100***	***30***	***67***	***15***	***100***	***5***	***100***	***10***	***88***	***10***	***96***	***5***	***100***	**0**	***24***	***0***
39	Dungog (Reticulator)	No Discharge Licence	Dungog	**1**		2,000	**S**	**TF**	NO	NO	**L**	234															0	15	1
			Surfbeach	**1**	**1991**	15,000	**AS**	**CEA**	YES	NO	**O**	1,416	20	100	30	100					10	100					3	13	1
			Bingi	**5**		12,000	**AS**	**IEA**	YES	NO	**L**	593	20	100	30	100					10	100					2	41	
			Tomakin	**3**		7,600	**AS**	**CEA**	YES	YES	**O**	330	20	100	30	100					10	100					1	14	
			Dalmeny	**2**		8,000	**AS**	**CEA/IEA**	YES	NO	**O**	281	20	100	30	100					10	100					2	37	
			Moruya	**4**		4,000	**AS**	**CEA**	YES	NO	**R**	187	20	93	30	100					10	100					1	14	
40	Eurobodalla (Unfiltered)		***Total/Weighted Average1,3***			***46,600***			***YES***	***NO***		***2,807***	***20***	***99***	***30***	***100***					***10***	***100***					***2***	***119***	***0***
41	Fish River WS (Unfiltered, Bulk Supplier)	NO SGE																											
42	Forbes		Forbes	**1**	**1987**	12,000	**S**	**TF**	NO	NO	**L**	720	20	93	30	100											0	14	0
43	Gilgandra (Groundwater)		Gilgandra	**1**		3,000	**S**	**TF**	NO	NO	**L**	313	20	100	50	100	10	50			10	100	10	100			4	8	0
44	Glen Innes		Glen Innes	**1**	**1930**	6,000	**S**	**TF**	NO	NO	**R**	610	20	100	30	100					10	100					0	12	
45	Gloucester		Gloucester	**1**	**1988**	4,600	**S**	**TF**	NO	NO	**R**	214	30	100	40	54	40	100	10	100							2	13	0
46	Goldenfields (Bulk Supplier)	NO SGE																											
47	Goldenfields (Reticulator)	NO SGE																											
48	Goldenfields (Combined)	NO SGE																											
			Kincumber	**1**		180,000	**S**	**C**	YES	NO	**O**	11,134	30	100	50	100					10	100					1	65	0
			Woy Woy	**2**	**1989**	50,000	**AS**	**CEA**	YES	NO	**O**	4,080	30	100	50	100					10	100					0	65	0
49	Gosford		***Total/Weighted Average1,3***			***230,000***	***AS***		***YES***	***NO***		***15,214***	***30***	***100***	***50***	***100***					***10***	***100***					***1***	***130***	***0***
50	Goulburn		Goulburn	**1**		31,500	**S**	**TF**	NO	YES	**L/R**	1,768	20	90	30	70	0		0		0		0		0		3	12	0

Appendix D2 - 2003/04 Sewage Treatment Data

Notes:

1. Where a water utility has more than one treatment work, the reported Licence Compliance values have been pro-rated on the basis of the number of sampling days at each treatment works and are shown in bold in the final line for that utility.
   Totals are shown for capacity (37B), sewage volume treated (38A), and sampling days (52). The days of major malfunction of treatment processes (53) shown are the weighted average based on treatment works capacity.
2. For each licence limit, the value shown in the final line for each water utility is that required to be met for at least 50% of the utility's total licenced treatment works capacity.
3. For **"Standard of Treatment"**; P = Primary; S = Secondary; AS = Advanced Secondary; T = Tertiary; AT = Advanced Tertiary. For **"Effluent Discharge"**; L = Land, O = Ocean, R = River.
4. For **"Type of Treatment Works"**; A= Oxidation Pond, AL = Aerated Lagoons, AN = Anaerobic Pond, C = Conventional Activated Sludge, CEA = Continuous Extended Aeration (Activated Sludge), IEA = Intermittent Extended Aeration (Activated Sludge), TF = Trickling Filter, BNR = Biological Nutrient Removal.
5. 90 Percentile Licence Limits have been reported for questions 50a, 50b, 50c, 50d, 50e, 50f and 50g.
6. For odour complaints, the weighted average values shown are on the basis of the total odour complaints divided by the number of connected properties.

	Water Utility	Comment	Sewage Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Standard of Treatment[3]	Type of Treatment Works[4]	Nitrogen Removal	Phosphorus Removal	Effluent Discharge[3]	Volume of Sewage Receiving Treatment	90 Percentile Licence Limits[5] and DEC Licence Compliance														Odour Complaints per 1,000 properties[6]	Sampling Days	Major Malfunction of Treatment Processes
													BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms				
			Name	*Licenced*		*EP*			*Yes/No*	*Yes/No*		*ML*	*mg/L*	*% Samples*	*mg/L*	*% Samples*	*mg/L*	*% Samples*	*mg/L*	*% Samples*	*mg/L*	*% Samples*	*mg/L*	*% Samples*	*cfu /100mL*	*% Samples*		*days*	*days*
			37a			*37b*			*38b*	*38c*		*41c*	*50a*	*51a*	*50b*	*51b*	*50c*	*51c*	*50d*	*51d*	*50e*	*51e*	*50f*	*51f*	*50g*	*51g*	*54*	*52*	*53*
			North Grafton	**1**	**1989**	14,700	**S**	**TF**	NO	NO	**R**	873	20	96	30	100					10	66					1	27	0
			South Grafton	**2**	**1989**	6,400	**S**	**TF**	NO	NO	**R**	439	20	100	30	91					10	63					1	27	0
			Clarenza	**3**	**1988**	5,000	**AS**	**IEA**	NO	NO	**L/R**	275	20	100	30	88					10	74					0	27	0
51	Grafton (Unfiltered)		***Total/Weighted Average1,3***			***26,100***			***NO***	***NO***		***1,587***	***20***	***99***	***30***	***93***					***10***	***68***					***1***	***81***	***0***
			Griffith	**1**	**1992**	65,000	**S**	**TF/IEA**	NO	YES	**R**	2,421	20	33	20	8	0	0	0	0	10	100		0	200	92	62	15	0
			Yenda	**2**	**1981**	34,000	**S**	**AL**	NO	NO	**R**	137	50	100	50	75	0	0	0	0	0	0	0	0	600	100	1	9	0
			Bilbul	**3**	**1990**	310	**S**	**A**	NO	NO	**R**	27															0	0	0
52	Griffith		***Total/Weighted Average1,3***			***99,310***			***NO***	***YES***		***2,585***	***20***	***100***	***20***	***75***	***0***	***0***	***0***	***0***	***10***	***100***		***0***	***200***	***100***	***41***	***24***	***0***
53	Gundagai		Gundagai	**1**	**1972**	3,500	**S**	**TF**	NO	NO	**R**	105															0	10	0
			Gunnedah	**1**	**1969**	11,000	**S**	**TF**	NO	NO	**R**	653	20	100	30	92					10	100					0.3	14	0
		No Discharge Licence	Curlewis	**2**		1,650	**S**	**A**	NO	NO	**L**	0															0	2	0
54	Gunnedah (Groundwater)		***Total/Weighted Average1,3***			***12,650***			***NO***	***NO***		***653***	***20***	***100***	***30***	***92***					***10***	***100***					***0.3***	***16***	***0***
55	Gunning (Groundwater)		Gunning	**1**		1,000	**AS**	**IEA**	YES	NO	**R**	11	2	100	4	100					1	100	2				0	14	0
56	Guyra		Guyra	**1**	**2000**	3,300	**AS**	**IEA**	YES	YES	**R**	129	15	100	20	92	15	92	5	100	10	100	1	67	10	100	0	12	0
57	Harden (Reticulator)		Harden-Araluen Road	**1**		4,000	**S**	**TF**	NO	NO	**L/R**	186	20	100	30	100											0	12	0
			Port Macquarie	**2**		52,000	**S**	**TF**	YES	YES	**O**	4,324	10	100	15	80	20	100	5	100	10	100	1	45	200	100	0	51	0
			Wauchope	**1**	**1993**	8,000	**AS**	**IEA/BNR**	YES	NO	**R**	824	30	100	30	94					10	100					0	50	0
			Dunbogan	**3**	**1991**	9,000	**AS**	**IEA**	NO	NO	**R**	711	20	14	30	82					10	100						51	0
			Lake Cathie / Bonny Hills	**4**	**1989**	6,000	**AT**	**IEA**	YES	NO	**L**	438	20	96	30	96					10	100					0	50	0
			Kew Kendall	**5**		2,200	**AS**	**IEA**	YES	NO	**L**	80	30		20										500		0		
58	Hastings (Unfiltered)		***Total/Weighted Average1,3***			***77,200***			***YES***	***YES***		***6,377***	***10***	***100***	***15***	***96***	***20***	***100***	***5***	***100***	***10***	***100***	***1***	***45***	***200***	***100***	***0***	***202***	***0***
			South Windsor	**1**	**1952**	14,000	**S**	**AL**	YES	YES	**L**	1200	20	100	5	100	17	100	4	100			0	100			1	26	0
			Mc Graths Hill	**2**		9,500	**S**		NO	YES		1195	30	100	75	100					10	80					1	26	0
58-A	Hawkesbury		***Total/Weighted Average1,3***			***23,500***		**TF**	***YES***	***YES***		***2,395***	***20***	***100***	***5***	***100***	***17***	***100***	***4***	***100***		***80***	***0***	***100***			***1***	***52***	***0***
59	Hay (Dual Supply)		Hay	**1**		3,000	**S**	**TF**	YES	YES	**L**	369	30	100	40	90	40	100			10	90	10	100			0	8	0
60	Holbrook		Holbrook		**1984**	1,600	**S**	**TF**	NO	NO	**R**	147															0	7	0
			Howlong	**1**		2,500	**S**	**A**	NO	NO	**L**	139															0	10	0
		No Discharge Licence	Jindera	**2**	**1986**	1,000	**S**	**A**	NO	NO	**L**	50															0	10	0
			Lake Hume	**3**	**1980**	500	**S**	**IEA**	NO	NO	**R**	19	20	90	30	100											0	10	0
			Burrumbuttock	**4**	**1990**	100	**AS**	**A**	NO	NO	**L**	3															0	10	0
			Lara Lakes	**5**	**1990**	100	**S**	**A**	NO	NO	**L**	3															0	10	0
61	Hume (Unfiltered)		***Total/Weighted Average1,3***			***4,200***			***NO***	***NO***		***214***		***90***		***100***											**0**	***50***	***0***
62	Hunter Water	METROPOLITAN										54,672															1		
			Inverell	**1**	**1986**	12,000	**AS**	**IEA**	YES	NO	**R**	680	20	100	30	100					10	100					0	14	0
			Ashford	**2**	**1970**	1,000	**AS**	**IEA**	YES	NO	**R**	35	20	100	30	95					10	100					0	14	0
		No Licence Limits	Gilgai	**3**		500	**S**	**A**	YES	NO	**L**	25	20	100	30	100		100			10						0	14	0
		No Discharge Licence	Delungra	**4**		500	**AS**	**IEA**	NO	NO	**R**	30															6	10	0
63	Inverell		***Total/Weighted Average1,3***			***14,000***			***YES***	***NO***		***770***	***20***	***100***	***30***	***100***		***100***			***10***	***100***					***0.2***	***52***	***0***
64	Jerilderie (Dual Supply)		Jerilderie	**1**		2,000	**S**	**TF**	NO	NO	**L**	90	20	100	30	75					10	100					0	4	0
65	Junee		Junee	**1**	**1992**	7,000	**AS**	**TF/IEA**	NO	NO	**R**	256	30		20						10				600		0	4	
			West Kempsey	**1**	**1991**	12,000	**AS**	**TF**	YES	YES	**R**	935	15	100	20	85	15	100	5	100	10	100	1	100	600	96	1	26	0
			South West Rocks	**5**	**1991**	6,000	**AS**	**IEA**	NO	NO	**R**	252	20	100	30	100					10	100					3	12	0
			South Kempsey	**4**		5,400	**AS**	**IEA/TF**	YES	NO	**L**	360	20	100	30	92					10	100					1	26	0
			Crescent Head	**2**		2,000	**AS**	**IEA**	YES	YES	**R**	142	15	100	20	92	15	100	5	92	10	100	1	100	200		0	12	0
			Smithtown-Gladstone	**6**		2,000	**AS**	**IEA**	NO	NO	**R**	121	20	100	30	100					10	100					2	12	0
			Frederickton	**3**		1,000	**AT**	**IEA**	YES	NO	**O**	56	20	100	30	92					10	100					0	12	0
66	Kempsey (Groundwater)		***Total/Weighted Average1,3***			***28,400***			***YES***	***YES***		***1,866***	***15***	***100***	***20***	***92***	***15***	***100***	***5***	***100***	***10***	***100***	***1***	***100***	***600***	***96***	***1***	***100***	***0***
			Kyogle	**1**	**1952**	3,500	**S**	**TF**	NO	YES	**R**	170	20	75	30	66					10	100					5	14	0
			Woodenbong	**2**	**1969**	300	**AS**	**IEA**	YES	NO	**L**	44	20	100	30	75					10	100					0	14	0
			Bonalbo	**3**	**1969**	300	**AS**	**IEA**	YES	NO	**L**	26	20	100	30	92					10	100					0	14	0
67	Kyogle		***Total/Weighted Average1,3***			***4,100***			***NO***	***YES***		***241***	***20***	***92***	***30***	***78***					***10***	***100***					***4***	***42***	***0***
			Condobolin	**1**	**1982**	4,000	**AS**	**TF/IEA**	NO	NO	**L**	332	20	100	30	100					10	100					0	16	0
		No Discharge Licence	Lake Cargelligo	**2**	**1979**	2,000	**AS**	**IEA**	YES	NO	**L**	189															0	3	0
		No Discharge Licence	Tottenham	**3**	**1981**	1,000	**AS**	**IEA**	YES	NO	**L**	71															0	3	0
68	Lachlan		***Total/Weighted Average1,3***			***7,000***			***NO***	***NO***		***592***	***20***	***100***	***30***	***100***					***10***	***100***					***0***	***22***	***0***
			Leeton	**1**	**1987**	2,700	**AS**	**TF/IEA**	NO	YES	**L**	850	50	1	50	1	0		0		0		0		0		1	7	0
			Yanco	**2**	**1980**	1,000	**AS**	**IEA**	NO	NO	**R**	130	20	100	30	100	0		0		10	100	0		0		0	14	0
			Whitton	**3**		500	**S**	**A**	NO	NO	**R**	10															0	0	0
69	Leeton		***Total/Weighted Average1,3***			***4,200***			***NO***	***YES***		***990***	***50***	***100***	***50***	***100***	***0***		***0***		***0***	***100***	***0***		***0***		**0.3**	***21***	***0***
			East Lismore	**2**	**1977**	30,500	**S**	**BNR**	YES	YES	**R**	1,962	15	100	20	70	15	100	5	100	10	100	1	47	200	65	0	52	0
			South Lismore	**1**	**1978**	22,500	**AS**	**TF**	NO	YES	**R**	1,499	15	100	20	100	15	100	5	100	10	100	1	72			0	52	0
			Nimbin	**3**	**1993**	600	**AS**	**IEA**	YES	YES	**R**	34	20	100	30	100	15	100	5	100	10	100	3	100			0	15	5
70	Lismore (Reticulator)		***Total/Weighted Average1,3***			***53,600***			***YES***	***YES***		***3,495***	***15***	***100***	***20***	***87***	***15***	***100***	***5***	***100***	***10***	***100***	***1***	***65***	***200***	***65***	***0.2***	***119***	***0***

Appendix D2 - 2003/04 Sewage Treatment Data

Notes:

1. Where a water utility has more than one treatment work, the reported Licence Compliance values have been pro-rated on the basis of the number of sampling days at each treatment works and are shown in bold in the final line for that utility.
   Totals are shown for capacity (37B), sewage volume treated (38A), and sampling days (52). The days of major malfunction of treatment processes (53) shown are the weighted average based on treatment works capacity.
2. For each licence limit, the value shown in the final line for each water utility is that required to be met for at least 50% of the utility's total licenced treatment works capacity.
3. For **"Standard of Treatment"**; P = Primary; S = Secondary; AS = Advanced Secondary; T = Tertiary; AT = Advanced Tertiary. For **"Effluent Discharge"**; L = Land, O = Ocean, R = River.
4. For **"Type of Treatment Works"**; A= Oxidation Pond, AL = Aerated Lagoons, AN = Anaerobic Pond, C = Conventional Activated Sludge, CEA = Continuous Extended Aeration (Activated Sludge), IEA = Intermittent Extended Aeration (Activated Sludge), TF = Trickling Filter, BNR = Biological Nutrient Removal.
5. 90 Percentile Licence Limits have been reported for questions 50a, 50b, 50c, 50d, 50e, 50f and 50g.
6. For odour complaints, the weighted average values shown are on the basis of the total odour complaints divided by the number of connected properties.

	Water Utility	Comment	Sewage Treatment Works *Name* *37a*	Treatment Works No. *Licenced*	Year built or Augmented	Capacity *EP* *37b*	Standard of Treatment[3]	Type of Treatment Works[4]	Nitrogen Removal *Yes/No* *38b*	Phosphorus Removal *Yes/No* *38c*	Effluent Discharge[3]	Volume of Sewage Receiving Treatment *ML* *41c*	90 Percentile Licence Limits[5] and DEC Licence Compliance												Odour Complaints per 1,000 properties[6] *54*	Sampling Days *days* *52*	Major Malfunction of Treatment Processes *days* *53*
													BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms				
													mg/L *50a*	% *Samples* *51a*	*mg/L* *50b*	% *Samples* *51b*	*mg/L* *50c*	% *Samples* *51c*	*mg/L* *50d*	% *Samples* *51d*	*mg/L* *50e*	% *Samples* *51e*	*mg/L* *50f*	% *Samples* *51f*	*cfu /100mL* *50g*	% *Samples* *51g*			
			Lithgow	**1**	**1987**	23,000	**S**	**TF**	NO	NO	**R**	1,615	15	91	25	83	15	83			10	100	1	0	200	75	0	12	0
			Wallerawang	**2**	**1990**	2,500	**S**	**TF**	NO	NO	**R**	0	15	75	30	66	15	50			10	100	1	0	200	66	0	12	0
			Portland	**3**	**1990**	2,500	**S**	**TF**	NO	NO	**R**	0	15	75	30	75	15	0			10	90	1	0	200	0	0	12	0
71	Lithgow		***Total/Weighted Average1,3***			***28,000***			***NO***	***NO***		***1,615***	***15***	***80***	***25***	***75***	***15***	***44***			***10***	***97***	***1***	***0***	***200***	***47***	***0***	***36***	***0***
			Lockhart	**1**	**1967**	3,000	**S**	**TF**	NO	NO	**R**	72	20	100	30	100					10	100					16	7	0
			The Rock	**2**	**1979**	2,000	**AS**	**IEA**	NO	NO	**R**	62	20	100	30	100					10	100					14	7	0
		No licence required	Yerong Creek	**3**		245			NO	NO		1															0	2	0
72	Lockhart		***Total/Weighted Average1,3***			***5,245***			***NO***	***NO***		***136***	***20***	***100***	***30***	***100***					***10***	***100***					***14***	***16***	***0***
73	North Coast (Unfiltered)	NO SGE																											
			Yamba	**1**	**1983**	7,500	**AS**	**IEA**	YES	YES	**L**	658	15	100	20	100	15	1	5	92	10	100	1	75	200	88	2	14	1
			Maclean	**2**	**1976**	3,000	**S**	**TF**	NO	NO	**R**	214	20	92	30	100					10	100					2	14	0
			Townsend	**3**	**1983**	500	**S**	**A**	NO	NO	**L**	56	50	83	50	75					10	92					0	14	0
			Ilarwill	**4**	***1991***	160	***S***	***A***	NO	NO	**R**	8	50	75	50	67					10	100					0	14	0
74	Maclean		***Total/Weighted Average1,3***			***11,160***			***YES***	***YES***		***935***	***15***	***88***	***20***	***86***	***15***	***1***	***5***	***92***	***10***	***98***	***1***	***75***	***200***	***88***	2	***56***	***1***
75	Manilla		Manilla	**1**	**1955**	2,850	**S**	**TF**	NO	NO	**L**	230	20	100	30	100											0	6	0
76	Merriwa (Groundwater)		Merriwa	**1**		1,600	**S**	**TF**	NO	YES	**R**	58	20	100	30	25					10	100					0	6	14
77	MidCoast (Manning - Unfiltered)					0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	MidCoast (Great Lakes - Unfiltered, Reticul					0						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Forster	**2**	**1998**	32,000	**AS**	**IEA**	YES	YES	**R**	1,876	30	100	30	100					10	96					1	28	0
			Dawson	**1**	**1995**	30,000	**AT**	**IEA**	YES	NO	**O**	1,476	30	100	30	100			5	100							2	53	0
			Hawka Nest	**3**	***1991***	14,000	**AS**	***IEA***	YES	YES	**R**	374	10	89	15	100	10	85	2	74	5	100	1	22			0.3	29	12
			Tuncurry	**6**	**1968**	10,000	**AS**	**TF**	NO	NO	**R**	994	25	93	25	87	30	80	20	87	12	100	8	100			1	15	0
			Harrington	**9**	**1995**	8,800	**AT**	**IEA**	YES	NO	**R**	147	20	100	30	100											1	15	0
		No Licence Limits	Wingham	**5**	**1995**	7,100	**AS**	**IEA**	YES	NO	**L**	386	30	100	30	100			10	100							1	28	0
			Hallidays Point	**8**	**1997**	5,000	**AS**	**IEA**	YES	YES	**L**	342	30	100	20	81					10	100					5	16	0
			Old Bar	**7**	**2005**	4,000	**AS**	**IEA**	YES	NO	**L**	274	20	100	30	100					10	100					4	16	0
			Bulahdelah	**4**	**1991**	3,000	**S**	**TF/IEA**	YES	YES	**L**	176	10	79	15	93			1	86	10	100	1	97			0	29	0
			Stroud	**13**	***1980***	1,000	***AS***	***IEA***	NO	NO	**R**	65	15	93	30	53	15	93			10	100					0	15	0
			Manning Point	**12**	**2003**	600	**AS**	**IEA**	YES	YES	**L**	26															0	1	0
			Lansdowne	**11**	**2002**	600	**AS**	**IEA**	YES	NO	**L**	24															0	19	0
			Coopernook	**10**	***2002***	600	***AS***	***IEA***	YES	NO	**L**	23															0	19	0
79	MidCoast (Combined - Unfiltered)		***Total/Weighted Average1,3***			***116,700***			***YES***	***YES***		***6,183***	***30***	***100***	***30***	***100***		***93***		***100***	***10***	***100***		***100***			1	***283***	***1***
			Boundary Street	**1**	**1986**	14,000	**AS**	**TF/IEA**	NO	NO	**R**	1,450															0	26	0
			Mungindi	**2**	***1974***	1,000	***AS***	***IEA***	NO	NO	**R**	44																	
80	Moree Plains (Groundwater)		***Total/Weighted Average1,3***			***15,000***			***NO***	***NO***		***1,494***															0	***26***	***0***
			Mudgee	**1**		10,000	**S**	**TF**	YES	NO	**R**	1,015	20	100	30	100					10	100					0	14	0
		No Discharge Licence	Gulgong	**2**	**1970**	3,000	**AS**	**IEA**	YES	NO	**L**	90															0	14	0
81	Mudgee (Unfiltered)		***Total/Weighted Average1,3***			***13,000***			***YES***	***NO***		***1,105***	***20***	***100***	***30***	***100***					***10***	***100***					***0***	***28***	***0***
82	Mulwaree		Marulan	**1**			**S**	**AL**	NO	NO	**L**	28															0	12	0
		No Discharge Licence	Moama	**1**	**1997**	10,000	**S**	**AL**	NO	NO	**L**	490															0	13	0
		No Discharge Licence	Mathoura	**2**	***1997***	1,600	***S***	***AL***	NO	NO	**L**	57															3	2	0
83	Murray		***Total/Weighted Average1,3***			***11,600***			***NO***	***NO***		***547***															0.5	***15***	***0***
			Darlington Point	**1**		1,000	**AS**	**IEA**	NO	NO	**R**	72	10		15		10		2				10		1000		0	7	0
			Coleambally	**2**		600	**S**	**A**	NO	NO	**L**	78															0		0
84	Murrumbidgee (Groundwater)		***Total/Weighted Average1,3***			***1,600***			***NO***	***NO***		***151***	***10***		***15***		***10***		***2***				***10***		***1000***		***0***	***7***	***0***
85	Murrurundi		Murrurundi	**1**		1,000	**AS**	**IEA**	YES	YES	**R**	135	4	100	5	100	1	100	0	100			6	100			0	6	1
			Muswellbrook	**1**	**1986**	20,000	**S**	**TF**	NO	NO	**R**	1,180	20	100	30	100					10	100					1	50	0
		No Licence Limits	Denman	**2**		3,000	**AS**	**IEA**	NO	NO	**R**	154	20		30						10						0	0	0
86	Muswellbrook		***Total/Weighted Average1,3***			***23,000***			***NO***	***NO***		***1,334***	***20***	***100***	***30***	***100***					***10***	***100***					1	***50***	***0***
			#N/A	**1**	***1986***	10,000	***AS***	***TF/IEA***	YES	YES	**R**	855	20	100	30	100					10	92					3	26	2
			Macksville	**2**	**1998**	5,500	**AS**	**IEA**	YES	YES	**R**	348	15	100	20	100	15	100	5	100	10	92	1	92			2	26	0
			Scotts Head	**3**	**1985**	1,200	**AS**	**IEA**	NO	NO	**R**	120	20	50	30	75					10	92					11	12	0
			Bowraville	**4**	**1968**	2,000	**S**	**TF**	YES	NO	**R**	94	20	100	30	100					10	100					0	12	0
87	Nambucca (Groundwater)		***Total/Weighted Average1,3***			***18,700***			***YES***	***YES***		***1,417***	***20***	***92***	***30***	***96***		***100***		***100***	***10***	***93***		***92***			***3***	***76***	***1***
			Narrabri	**1**	**1969**	8,300	**S**	**TF**	NO	NO	**R**	707	20	80							10	100					2	13	0
		No Discharge Licence	Wee Waa	**2**	**1972**	1,600	**S**	**TF**	NO	NO	**L**	378															6	1	0
		No Discharge Licence	Boggabri	**3**	**1956**	1,000	**S**	**TF**	NO	NO	**L**	54															0	2	0
88	Narrabri (Groundwater)		***Total/Weighted Average1,3***			***10,900***			***NO***	***NO***		***1,138***	***20***	***80***							***10***	***100***					***2***	***16***	***0***
89	Narrandera (Groundwater)		Narrandera	**1**	**1977**	6,000	**AS**	**TF/IEA**	NO	YES	**L**	524	15	100	20	42					10	100			600	83	1	14	0
		No Discharge Licence	Narromine	**1**	**1959**	2,500	**AS**	**IEA**	NO	NO	**R**	0									10						0		0
		No Discharge Licence	Trangie	**2**	**1979**	1,500	**S**	**TF**	NO	NO	**L**																0		0
90	Narromine (Groundwater)		***Total/Weighted Average1,3***			***4,000***			***NO***	***NO***		***0***															0		***0***
91	Nundle (Groundwater)	NO SGE																											

Appendix D2 - 2003/04 Sewage Treatment Data

Notes:
1. Where a water utility has more than one treatment work, the reported Licence Compliance values have been pro-rated on the basis of the number of sampling days at each treatment works and are shown in bold in the final line for that utility.
   Totals are shown for capacity (37B), sewage volume treated (38A), and sampling days (52). The days of major malfunction of treatment processes (53) shown are the weighted average based on treatment works capacity.
2. For each licence limit, the value shown in the final line for each water utility is that required to be met for at least 50% of the utility's total licenced treatment works capacity.
3. For **"Standard of Treatment"**; P = Primary; S = Secondary; AS = Advanced Secondary; T = Tertiary; AT = Advanced Tertiary. For **"Effluent Discharge"**; L = Land, O = Ocean, R = River.
4. For **"Type of Treatment Works"**; A= Oxidation Pond, AL = Aerated Lagoons, AN = Anaerobic Pond, C = Conventional Activated Sludge, CEA = Continuous Extended Aeration (Activated Sludge), IEA = Intermittent Extended Aeration (Activated Sludge), TF = Trickling Filter, BNR = Biological Nutrient Removal.
5. 90 Percentile Licence Limits have been reported for questions 50a, 50b, 50c, 50d, 50e, 50f and 50g.
6. For odour complaints, the weighted average values shown are on the basis of the total odour complaints divided by the number of connected properties.

	Water Utility	Comment	Sewage Treatment Works *Name* *37a*	Treatment Works No. *Licenced*	Year built or Augmented	Capacity *EP* *37b*	Standard of Treatment[3]	Type of Treatment Works[4]	Nitrogen Removal *Yes/No* *38b*	Phosphorus Removal *Yes/No* *38c*	Effluent Discharge[3]	Volume of Sewage Receiving Treatment *ML* *41c*	90 Percentile Licence Limits[5] and DEC Licence Compliance												Odour Complaints per 1,000 properties[6] *54*	Sampling Days *days* *52*	Major Malfunction of Treatment Processes *days* *53*
													BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms				
													mg/L *50a*	*% Samples* *51a*	*mg/L* *50b*	*% Samples* *51b*	*mg/L* *50c*	*% Samples* *51c*	*mg/L* *50d*	*% Samples* *51d*	*mg/L* *50e*	*% Samples* *51e*	*mg/L* *50f*	*% Samples* *51f*	*cfu /100mL* *50g*	*% Samples* *51g*			
92	Oberon (Unfiltered, Reticulator)		Oberon	**1**	**1989**	7,000	**S**	**TF**	NO	YES	**L**	315															0	55	0
			Orange	**1**	**1988**	60,000	**AS**	**TF/CEA**	YES	YES	**L**	4,651	20	96	25	96	15	87			10	81	1	87	400	85	0	23	0
			Spring Hill	**2**	***1990***	1,000	***AS***	***CEA***	YES	NO	**R**	28	20	94	50	94											4	17	0
93	Orange		***Total/Weighted Average1,3***			***61,000***			***YES***	***YES***		***4,679***	***20***	***95***	***25***	***95***	***15***	***87***			***10***	***81***	***1***	***87***	***400***	***85***	0	***40***	***0***
			Parkes	**1**	**1966**	14,500	**S**	**TF**	NO	NO	**R**	1,130	20		25		15				10		1				1	12	0
		No Discharge Licence	Peak Hill	**2**	***1969***	2,000	***S***	***TF***	NO	NO	**R**	115															0	0	0
94	Parkes		***Total/Weighted Average1,3***			***16,500***			***NO***	***NO***		***1,245***	***20***		***25***		***15***				***10***		***1***				1	***12***	***0***
95	Parry (Groundwater)		Kootingal		1993	2,000	S	A	NO	NO	**L**	157															0	2	0
			Corindi Beach	**1**		1,500	**S**	**IEA**	YES	YES		70	15		20		15		5	100	0	100	5	100	200		0	12	0
			Coutts Crossing	**2**	**1998**	1,000	**S**	**IEA**	YES	NO	**R**	38	20	100	80	67					10	100					0	12	0
96	Pristine Waters (Unfiltered)		***Total/Weighted Average1,3***			***2,500***			***YES***	***YES***		***108***	***15***	***100***	***20***	***67***	***15***		***5***	***100***	***0***	***100***	***5***	***100***	***200***		0	***24***	***0***
97	Queanbeyan (Reticulator)		Queanbeyan	**1**	1986	34,500	**AS**	**TF/CEA**	YES	YES	**R**	3,394	10	100	20	100	35	100		100			0	100	1000	100	0	365	0
98	Quirindi (Groundwater)		Quirindi	**1**	1984	7,000	**AS**	**TF/IEA**	NO	NO	**R**	249	20	100	30	15					10	100					0	27	0
			Casino	**1**	1986	13,300	***AS***	***TF/CEA***	YES	NO	**R**	997	20	100	30	100					10	100					2	26	0
			Lower River - Evans Head	**2**	1984	3,700	**AS**	**TF/IEA**	NO	NO	**R**	680	35	100	35	92					10	92					2	15	0
			Coraki	**3**		1,200	**S**	**TF**	NO	NO		100	20	100	30	67					10	100						15	0
			Rileys Hill	**4**		200	**S**	**C**	YES	YES	**L**	6	15	100	20	100	15	100	5	100	10	100	1	83	200	75		15	0
99	Richmond Valley		***Total/Weighted Average1,3***			***18,400***			***YES***	***NO***		***1,783***	***20***	***100***	***30***	***91***		***100***		***100***	***10***	***98***		***83***		***75***	2	***71***	***0***
100	Riverina (Groundwater)	NO SGE																											
101	Rous (Bulk Supplier)	NO SGE																											
			Aberdeen	**1**	**1972**	2,500	**S**	**IEA**	NO	NO	**R**	143	20	100	30	75	15	42			10	100	6	42				12	0
			Kandos	**2**	***1972***	1,250	***S***	***TF/IEA***	NO	NO	**R**	69	20	100	30	83	15	83			10	92	6	42				12	0
102	Rylstone		***Total/Weighted Average1,3***			***3,750***			***NO***	***NO***		***212***	***20***	***100***	***30***	***79***	***15***	***63***			***10***	***96***	***6***	***42***				***24***	***0***
			Scone	**1**	**1988**	7,000	**AS**	**TF/IEA**	NO	NO	**R**	523	20	100	30	100					10	100					1	16	0
			Aberdeen	**2**		4,000	**AS**	**IEA**	NO	NO	**R**	291	20	100	30	100					10	100					1	16	0
103	Scone (Unfiltered)		***Total/Weighted Average1,3***			***11,000***			***NO***	***NO***		***814***	***20***	***100***	***30***	***100***					***10***	***100***					1	***32***	***0***
104	Severn		Deepwater	**1**	**1987**	500	**S**	**A**	NO	NO	**L**	13															0	11	0
			Ulladulla	**1**	**1981**	21,000	**AS**	**TF/IEA**	YES	NO	**O**	1,783	40	100	40	100					10	100					0	14	0
			Shoalhaven Heads	**2**	**1983**	16,000	**AS**	**IEA**	YES	YES	**L**	905	10	100	15	100	15	100	5	100	2	100			200		0.2	14	0
			Sussex Inlet	**3**	**1990**	14,000	**AT**	**IEA**	YES	YES	**O**	551	10	100	15	100	15	100	5	100	2	100			200		0	14	0
			Callala	**4**	**2000**	12,500	**AT**	**IEA**	YES	NO	**R**	1,033	50	100	50	100					10	100					0	14	0
			Vincentia	**5**	**1992**	12,500	**AS**	**IEA**	YES	NO	**O**	661	20	100	40	50					10	100					0.5	14	0
			Bomaderry	**6**	**1990**	10,500	**AS**	**TF/IEA**	YES	YES	**R**	737	10	100	15	100	15	100	5	100	2	100			200		0	14	0
			Berry	**7**	***1978***	8,000	***AS***	***IEA***	YES	YES	**R**	422	20	100	30	100					10	100					0	14	0
			Culburra Beach	**8**	**1982**	6,000	**AS**	**IEA**	YES	YES	**O**	207	10	100	15	92	15	100	5	92	2	100			200		0	14	0
			St Georges Basin	**9**	**1992**	4,000	**AS**	**IEA**	YES	NO	**O**	285	30	100	30	100					10	100					0	14	0
			Nowra	**10**	**1989**	2,000	**AS**	**TF/CEA**	YES	NO	**R**	159	20	100	30	92					10	100					0	14	0
105	Shoalhaven		***Total/Weighted Average1,3***			***106,500***			***YES***	***NO***		***6,741***	***40***	***100***	***40***	***93***		***100***		***100***	***10***	***100***					0	***140***	***0***
106	Singleton		Singleton	**1**	**1988**	20,000	**AS**	**IEA**	YES	NO	**R**	1,103	30	100	30	100	15	50			10	100	10	100			1	14	0
		No Licence Limits	Kalkite	**1**		12,000	***AS***	***IEA***	YES	YES	**L**	320	15	100	20	100	10	100	2	100	1	100	2	100	200	100	2	18	0
			Jindabyne	**2**		1,000	**AT**	**IEA**	YES	YES	**R**	20	20	100	30	100	0		0		10	100	0		0		22	13	0
			Berridale	**3**		1,000	**AS**	**IEA**	NO	NO	**R**	15															22	0	0
			Adaminaby	**4**		750	**S**	**TF**	YES	YES	**R**	110	20	85	30	69					10	100					30	13	0
107	Snowy River (Unfiltered)		***Total/Weighted Average1,3***			***14,750***			***YES***	***YES***		***465***	***15***	***100***	***20***	***100***	***10***	***100***	***2***	***100***	***1***	***100***	***2***	***100***	***200***	***100***	6	***44***	***0***
108	Sydney Water	METROPOLITAN										355,340															1		
109	Tallaganda (Unfiltered)		Braidwood	**1**		3,000	**S**	**TF**	NO	NO	**R**	79	20	92	30	75					10	100					8	12	4
			Westdale	**1**	**1983**	33,000	**AS**	**TF/IEA**	YES	YES	**R**	3,061	30	100	25	79							2	100			0	54	0
		No Licence Limits	Swan St	**2**	**1968**	15,000	**S**	**TF**	NO	YES	**L**	1,342											2	100			0.2	14	0
110	Tamworth		***Total/Weighted Average1,3***			***48,000***			***YES***	***YES***		***4,395***	***30***	***100***	***25***	***79***							***2***	***100***			**0.1**	***68***	***0***
111	Temora		Temora	**1**	**1931**	5,500	**S**	**TF**	YES	NO	**L**	360	20	100	30	95	6	100			2	100	19	100	437	75	0	15	0
			Tenterfield	**1**	**1983**	2,750	**S**	**TF**	NO	NO	**L/R**	252	40	100	45	100											0	15	0
			Urbenville	**2**	***1981***	500	***AS***	***IEA***	NO	NO	**L/R**	24	20	100	30	80					10	100					0	15	1
112	Tenterfield		***Total/Weighted Average1,3***			***3,250***			***NO***	***NO***		***276***	***40***	***100***	***45***	***90***						***100***					0	***30***	***0***
			Tumbarumba	**1**	**1984**	3,500	**S**	**TF**	NO	NO	**R**	205															0	6	0
			Khancoban	**2**		1,500	**S**	**TF**	NO	NO	**R**	52															0	8	0
113	Tumbarumba (Unfiltered)		***Total/Weighted Average1,3***			***5,000***			***NO***	***NO***		***257***															0	***14***	***0***
			Tumut	**1**	***1994***	7,500	***S***	***TF***	NO	YES	**R**	727	40	100	45	100					10	100	2	100			1	13	0
			Adelong	**2**	**1967**	1,400	**S**	**TF**	NO	YES	**R**	130	40	66	45	83					10	100					0	13	0
			Batlow	**3**	**1966**	1,100	**AS**	**IEA**	YES	YES	**R**	15	25	100	35	100	25	100	10	100	10	100	2	100			3	5	0
			Talbingo	**4**	**1995**	1,000	**AS**	**CEA/BNR**	YES	YES	**R**	90	40	92	45	100					10	92					3	13	0
114	Tumut		***Total/Weighted Average1,3***			***11,000***			***NO***	***YES***		***961***	***40***	***88***	***45***	***95***		***100***		***100***	***10***	***98***	***2***	***100***			1	***44***	***0***

Appendix D2 - 2003/04 Sewage Treatment Data

Notes:

1. Where a water utility has more than one treatment work, the reported Licence Compliance values have been pro-rated on the basis of the number of sampling days at each treatment works and are shown in bold in the final line for that utility.
   Totals are shown for capacity (37B), sewage volume treated (38A), and sampling days (52). The days of major malfunction of treatment processes (53) shown are the weighted average based on treatment works capacity.
2. For each licence limit, the value shown in the final line for each water utility is that required to be met for at least 50% of the utility's total licenced treatment works capacity.
3. For **"Standard of Treatment"**; P = Primary; S = Secondary; AS = Advanced Secondary; T = Tertiary; AT = Advanced Tertiary. For **"Effluent Discharge"**; L = Land, O = Ocean, R = River.
4. For **"Type of Treatment Works"**; A= Oxidation Pond, AL = Aerated Lagoons, AN = Anaerobic Pond, C = Conventional Activated Sludge, CEA = Continuous Extended Aeration (Activated Sludge), IEA = Intermittent Extended Aeration (Activated Sludge), TF = Trickling Filter, BNR = Biological Nutrient Removal.
5. 90 Percentile Licence Limits have been reported for questions 50a, 50b, 50c, 50d, 50e, 50f and 50g.
6. For odour complaints, the weighted average values shown are on the basis of the total odour complaints divided by the number of connected properties.

	Water Utility	Comment	Sewage Treatment Works	Treatment Works No.	Year built or Augmented	Capacity	Standard of Treatment[3]	Type of Treatment Works[4]	Nitrogen Removal	Phosphorus Removal	Effluent Discharge[3]	Volume of Sewage Receiving Treatment	90 Percentile Licence Limits[5] and DEC Licence Compliance														Odour Complaints per 1,000 properties[6]	Sampling Days	Major Malfunction of Treatment Processes
													BOD		SS		Total N		NH_3N		Oil & Grease		Total P		Faecal Coliforms				
			Name	*Licenced*		*EP*			*Yes/No*	*Yes/No*		*ML*	*mg/L* *50a*	*% Samples* *51a*	*mg/L* *50b*	*% Samples* *51b*	*mg/L* *50c*	*% Samples* *51c*	*mg/L* *50d*	*% Samples* *51d*	*mg/L* *50e*	*% Samples* *51e*	*mg/L* *50f*	*% Samples* *51f*	*cfu /100mL* *50g*	*% Samples* *51g*		*days* *52*	*days* *53*
			37a			*37b*			*38b*	*38c*		*41c*															*54*		
115	Tweed		Banora Point	1	1991	62,500	AS	CEA/BNR	YES	YES	R	4,175	15	100	20	100					10	100			FC 10000	100	1	54	3
			Murwillumbah	2	1985	16,000	AS	IEA	YES	YES	R	942	10	100	15	97	10	100	2	100	10	100	1	100	FC 200	81	0.3	30	7
			Kingscliff	3	1994	14,000	AS	IEA	YES	YES	R	928	25	100	25	97					10	100					0.3	30	0
			Tweed Heads	4	*1990*	12,000	*S*	*TF*	YES	NO	R	876	25	80	25	87					10	100					4	30	2
			Hastings Point	5	1988	8,000	AT	IEA	YES	NO	R	632	25	100	25	100					10	100					3	30	0
			Tumbulgum	6	2000	700	AS	IEA	YES	YES	R	27	15	100	20	97	10	100	5	100	10	100	1	93	FC 200	100	0	30	3
			Tyalgum	7	1990	500	AS	IEA	YES	NO	R	19	25	100	50	93					10	100					0	30	0
115	Tweed		***Total/Weighted Average1,3***			***113,700***			***YES***	***YES***		***7,598***	***15***	***97***	***20***	***96***		***100***		***100***	***10***	***100***		***100***	***FC 10000***	***100***	***1***	***234***	***3***
116	Uralla		Uralla	1	1995	3,960	AS	IEA	YES	YES	R	147	15	100	20	100	10	100	1	75	10	100	1	100	200	100	0	14	0
			Urana	1		754	S	A			L	55															24	
			S762 Oaklands	2		520	S	A			L	33															0		
116-	Urana		***Total/Weighted Average1,3***			***1,274***						***88***															14		
		100% Limits	Narrung St	1	1992	65,000	AS	TF/CEA	NO	YES	L/R	4,503	20	94	30	71					10	100					0	13	1
		100% Limits	Kooringal	2	*1992*	20,000	*AS*	*TF/CEA*	NO	YES	L/R	1,323	20	100	30	90					10	90					0	13	0
		100% Limits	Forest Hill	3	1974	3,500	AS	AL/IEA	NO	NO	L	287	20	100	30	88					10	100					0	5	0
		No Discharge Licence	Uranquinty	4		1,000	S	A	NO	NO	L	180															0		0
		No Discharge Licence	Tarcutta	5		500	S	A	NO	NO	L	26															0		0
117	Wagga Wagga		***Total/Weighted Average1,3***			***90,000***			***NO***	***YES***		***6,319***	***20***	***100***	***30***	***90***					***10***	***100***					***0***	***31***	***1***
		No Discharge Licence	Barham	1		1,600	AS	A	NO	NO	L	50															0		
		No Discharge Licence	Mouldmein	2		500	S	IEA	NO	NO	L	73																	
		No Discharge Licence	Murray Downs	3		260	S	A	NO	NO	L	7.3																	
118	Wakool (Dual Supply)		***Total/Weighted Average1,3***			***2,360***			***NO***	***NO***		***130***	***0***		***0***		***0***		***0***		***0***		***0***		***0***		0		
119	Walcha		Walcha	1	*1971*	2,200	*S*	*TF*	NO	NO	R	188	20	100	30	83					10	100					0	12	0
			Walgett	1	1958	3,200	S	TF	NO	NO	L	300																	
			Lightning Ridge	2	1979	1,000	S	A	NO	NO		212																4	
			Collarenebri	3	1970	600	S	A	NO	NO		50																	
120	Walgett (Dual Supply)		***Total/Weighted Average1,3***			***4,800***			***NO***	***NO***		***562***																***4***	
121	Warren (Dual Supply)	No Discharge Licence	Warren	1	1958	2,180	S	TF	NO	NO	L	188	20	0	65	100	15	0			10	100	10	100				1	0
122	Weddin		Grenfell	1	1943	2,500	S	TF	NO	NO	R	171															1	4	0
123	Wellington		Wellington	1	1984	8,000	S	TF	NO	NO	R	411	15	100	30	50	15	100	2	90	10	100	1	0	600	100	0	12	0
			East Wentworth	1		5,000	S	A	NO	NO	L	223	50	100	50	100						100					5	6	0
			Buronga Gol Gol (Alcheringa)	2		3,500	*S*	*A*	NO	NO		211	20	100	30	100					10	100					0	6	0
			Dareton	3		2,000	S	TF	NO	NO		62	20	100	30	100					10	100					0	6	0
			Namatjira	4		1,200	S	A	NO	NO		23															0	2	0
			Wentworth	5	1991	600	S	TF	NO	NO		32	40	100	40	100									200	100	0	6	0
124	Wentworth (Dual Supply)		***Total/Weighted Average1,3***			***12,300***			***NO***	***NO***		***551***	***50***	***100***	***50***	***100***						***100***				***100***	2	***26***	***0***
			Bowral	1	1994	14,000	AS	TF/IEA	YES	YES	R	820	10	100	15	92	10	92	2	100	10	100	0	85	200	81	0	29	0
			Mittagong	2	*1974*	10,500	*AS*	*TF*	YES	YES	R	1,130	20	89	30	100	45	100		100		100	2	96		100	4	29	15
			Moss Vale	3	1995	9,000	AS	IEA	YES	YES	R	640	20	96	30	100	15	100	2	100		100	1	100	200	75	0	29	0
			Berrima	4	1990	2,000	AS	IEA	YES	YES	R	195	20	100	30	100	15	100	2	93		100	2	100		100	0	14	0
			Bundanoon	5	1982	2,000	AS	IEA	YES	YES	R	60	20	100	30	100	15	100	2	100		100	1	100		100	0	14	0
125	Wingecarribee		***Total/Weighted Average1,3***			***37,500***			***YES***	***YES***		***2,845***	***10***	***96***	***15***	***98***	***10***	***98***	***2***	***99***	***10***	***100***	***0***	***95***	***200***	***89***	1	***115***	***4***
			Bateau Bay	1		58,000	AS	TF/IEA	NO	NO	O	2,529			35	100					10	100					0	32	0
			Wyong South	2		49,000	AS	TF	NO	NO	O	2,071															0	52	0
		Discharge to Toukley	Charmhaven	3		48,000	*S*	*IEA*	NO	NO	O	3,254															0	53	0
		Discharge to Toukley	Toukley	4		40,000	AS	IEA	NO	NO	O	2,434			35	100					10	100					0	32	0
		Discharge to Toukley	Mannering Park	5		12,000	AS	IEA	NO	NO	O	543															0	52	0
		Discharge to Toukley	Gwandalan	6		12,000	AS	IEA	NO	NO	O	328															0	52	0
126	Wyong		***Total/Weighted Average1,3***			***219,000***			***NO***	***NO***		***11,159***			***35***	***100***					***10***	***100***					0	***273***	***0***
127	Yallaroi (Groundwater)		Warialda	1	*1969*	1,500	*S*	*TF*	YES	YES	R	150	20	100	30	20					10	100					3	11	0
			Bungendore	1		2,000	AS	IEA	YES	NO	R	152	10	100	15	100					10	100					0	4	0
			Captains Flat	2		500	AS	IEA	YES	NO	R	37	20	75	30	50					10	100					0	4	0
			Weetalabah	3																									
128	Yarrowlumla (Groundwater)		***Total/Weighted Average1,3***			***2,500***			***YES***	***NO***		***189***	***10***	***100***	***15***	***100***					***10***	***100***					0	***8***	***0***
			Pasveer	1		4,000	AS	IEA	NO	NO	L/R	342	30	100	30	100											0	8	0
			Trikling Filter	2		3,500	*S*	*TF*	NO	NO	L/R	117	30	100	30	100											0	8	0
129	Yass		***Total/Weighted Average1,3***			***7,500***			***NO***	***NO***		***459***	***30***	***100***	***30***	***100***											0	***16***	***0***
130	Young (Reticulator)		Young	1		7,000	S	TF	NO	NO	L/R	758	30	100	30	83					10	100					0	12	0

APPENDIX E

COUNCIL AMALGAMATIONS

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APPENDIX E – Council Amalgamations

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

Seven of the amalgamations involved only minor adjustments to LWU boundaries (with a name change in several cases) but the number of water supply and sewerage assessments remained unchanged (eg. Bathurst incorporated Evans Council and was renamed Bathurst Regional Council, but involved no additional water supply or sewerage assessments). For these cases, the reported water supply and sewerage results are unchanged except that the LWU has been renamed. These 7 LWUs are shown in Table E1 below.

Table E1 – LWUs with no Change in Water and Sewerage Businesses

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

There were 15 amalgamations where LWUs were combined or where alterations to boundaries significantly altered the number of assessments. These 15 amalgamated LWUs are shown in Table E2 overleaf.

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

As noted on page ii, for clarity, Figures 1 to 81 report the results for the amalgamated LWUs, but not those of their constituent LWUs over the last 5 years.

Table E2 – Amalgamated LWUs

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

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

The percentage of the water supply assessments of each constituent in the amalgamated LWU is shown in column 1 of Table E3 on the facing page. Eg. column 1 shows that Albury City involves all of the (21,104) connected properties of the former Albury Council and 16% of the (2,182) connected properties of the former Hume Council.

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

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

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

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

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

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

APPENDIX E – Council Amalgamations

Table E3 - Amalgamations - Basis for Calculation of Performance Indicators

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

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